As filed with the Securities and Exchange Commission on April 30, 2024.

Registration No. 333-278666

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Amendment No. 2 to
Form S-1
REGISTRATION STATEMENT
Under
The Securities Act of 1933

Silvaco Group, Inc.
(Exact name of Registrant as specified in its charter)

Delaware	7372	27-1503712
(State or other jurisdiction of incorporation or organization)	**(Primary Standard Industrial Classification Code Number)**	**(I.R.S. Employer Identification Number)**

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Approximate date of commencement of proposed sale to the public: As soon as practicable after this registration statement is declared effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act, check the following box: ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with the provisions of Section 8(a) of the Securities Act of 1933 as amended or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

EXPLANATORY NOTE

This registration statement contains two forms of prospectus, as set forth below.

- Public Offering Prospectus. A prospectus to be used for the initial public offering by Silvaco Group, Inc. (the "Company") of 6,000,000 shares of common stock (and an additional 900,000 shares of common stock which may be sold upon exercise of the underwriters' option to purchase additional shares of common stock) through the underwriters named on the cover page of the Public Offering Prospectus.
- Selling Stockholder Resale Prospectus. A prospectus to be used in connection with the potential resale by Micron Technology, Inc. ("Micron") of the shares of our common stock issued, upon the conversion of $5.0 million in aggregate principal amount of indebtedness under a convertible unsecured promissory note entered into on April 16, 2024, by and between the Company and Micron (the "Micron Note"), which converts mandatorily into 310,562 shares of common stock (equal to (i) the aggregate principal amount outstanding of the Micron Note and any accrued interest thereon, divided by (ii) a number equal to 90% of $18.00, which is the assumed initial public offering price based on the midpoint of the price range set forth on the cover page of the Public Offering Prospectus), upon the consummation of the initial public offering for which this registration statement relates, assuming such initial public offering is consummated prior to May 31, 2024.

The Public Offering Prospectus and the Selling Stockholder Resale Prospectus will be substantively identical in all respects except for the following principal points:

- they contain different front covers;
- all references in the Public Offering Prospectus to "this offering" or "this initial public offering" will be changed to "the IPO," defined as the underwritten initial public offering of our common stock, in the Selling Stockholder Resale Prospectus;
- all references in the Public Offering Prospectus to "underwriters" will be changed to "underwriters of the IPO" in the Selling Stockholder Resale Prospectus;
- they contain different "Summary—The Offering" sections;
- they contain different "Use of Proceeds" sections;
- the section "Dilution" from the Public Offering Prospectus is deleted from the Selling Stockholder Resale Prospectus;
- a "Selling Stockholder" section is included in the Selling Stockholder Resale Prospectus;
- the "Underwriting" section from the Public Offering Prospectus is deleted from the Selling Stockholder Resale Prospectus and a Plan of Distribution section is inserted in its place;
- the "Legal Matters" section in the Selling Stockholder Resale Prospectus deletes the reference to counsel for the underwriters; and
- they contain different back covers.

We have included in this registration statement, after the financial statements, a set of alternate pages to reflect the foregoing differences between the Public Offering Prospectus and the Selling Stockholder Resale Prospectus.

The information contained in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED APRIL 30, 2024

PRELIMINARY PROSPECTUS

6,000,000 Shares

SILVACO

Silvaco Group, Inc.

Common Stock

This is the initial public offering of shares of common stock of Silvaco Group, Inc. We are offering 6,000,000 shares of our common stock.

Prior to this offering, there has been no public market for our common stock. We currently anticipate that the initial public offering price will be between $17.00 and $19.00 per share. We have applied to list our common stock on the Nasdaq Global Select Market, or Nasdaq, under the symbol "SVCO."

Immediately after this offering, members of the Pesic family, including Katherine S. Ngai-Pesic, the chair of our board of directors, and the SMIK Trust, each of whom are signatories to the Stockholders Agreement described herein will own, or be the beneficial owner of, approximately 70.1% of our outstanding common stock (or approximately 67.9% if the underwriters exercise their option in full). Upon completion of this offering, we will be a "controlled company" within the meaning of the listing rules of the Nasdaq Stock Market LLC. See "Management—Director Independence and Controlled Company Exemption."

We are an "emerging growth company" and a "smaller reporting company" as defined in Section 2(a) of the Securities Act of 1933, as amended, and are subject to reduced public company disclosure requirements. See "Prospectus Summary—Implications of Being an Emerging Growth Company and a Smaller Reporting Company."

Investing in our common stock involves a high degree of risks. See "Risk Factors" beginning on page 19 to read about factors you should consider before buying shares of our common stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	PER SHARE	TOTAL
Initial public offering price	$	$
Underwriting discounts and commissions (1)	$	$
Proceeds to Silvaco Group, Inc., before expenses	$	$

(1) See the section titled "Underwriting" for additional information regarding underwriting compensation.

Delivery of our shares of common stock is expected to be made on or about , 2024.

We have granted the underwriters an option to purchase up to an additional 900,000 shares of common stock from us, at the public offering price, less the underwriting discounts and commissions, for 30 days after the date of this prospectus. If the underwriters exercise the option in full, the total underwriting discounts and commissions payable by us will be $8,694,000, and the total proceeds to us, before expenses, will be $115,506,000.

Jefferies **TD Cowen**

B. Riley Securities **Craig-Hallum Capital Group** **Rosenblatt**

Prospectus dated , 2024

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In this prospectus, "Silvaco," "the company," "we," "us" and "our" refer to Silvaco Group, Inc. and its consolidated subsidiaries.

Neither we nor the underwriters have authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectuses we have prepared. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The information in this prospectus, or any applicable free writing prospectus, is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of shares of our common stock. Our business, financial condition, results of operations, and prospects may have and are likely to have changed since that date.

Through and including , 2024 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the obligation of dealers to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

For investors outside the United States: Neither we nor the underwriters have done anything that would permit this offering or possession or distribution of this prospectus or any free writing prospectus in connection with this offering in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of our common stock and the distribution of this prospectus outside of the United States.

This prospectus contains references to trademarks and service marks belonging to other entities. Solely for convenience, trademarks and trade names referred to in this prospectus may appear without the ® or ™ symbols, but such references are not intended to indicate, in any way, that the applicable licensor will not assert, to the fullest extent under applicable law, its rights to these trademarks and trade names. We do not intend our use or display of other companies' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

PROSPECTUS SUMMARY

This summary highlights selected information in greater detail contained elsewhere in this prospectus and does not contain all of the information you should consider in making your investment decision. Before investing in our common stock, you should carefully read this entire prospectus, including our consolidated financial statements and related notes and the information set forth in "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Overview

We are a provider of technology computer aided design software, electronic design automation software and semiconductor intellectual property, or TCAD, EDA and SIP, respectively. TCAD, EDA and SIP solutions enable semiconductor and photonics companies to increase productivity, accelerate their products' time-to-market and reduce their development and manufacturing costs. We have decades of expertise developing the "technology behind the chip" and providing solutions that span from atoms to systems, starting with providing software for the atomic level simulation of semiconductor and photonics material for devices, to providing software and SIP for the design and analysis of circuits and system level solutions. We provide SIP for systems-on-chip, or SoC, integrated circuits, or ICs, and SIP management tools to enable team collaborations on complex SoC designs. Our customers include semiconductor manufacturers, original equipment manufacturers, or OEMs, and original design manufacturers, or ODMs, who deploy our solutions in production flows across our target markets, including display, power devices, automotive, memory, high performance compute, or HPC, internet of things, or IoT, and 5G/6G mobile markets.

EDA offerings, including our solutions, enable companies to streamline their IC design workflows, develop complex IC designs in a cost-efficient manner, and maintain acceptable IC manufacturing yield, by providing interoperable tools that capture and simulate designs from concept to analysis. Our TCAD device and process simulation tools provide compatible data structures that can be used with our EDA modeling, analysis, simulation, verification and yield enhancement tools. Further, our EDA tools are used for designing SIP and IC designs that can be managed and validated by our SIP management tools.

According to Grand View Research, the global aggregate EDA software market was valued at $11.1 billion in global revenue in 2022 and is expected to reach $22.2 billion in global revenue in 2030, representing a 9.1% compound annual growth rate, or CAGR, driven in part by the growing complexity of semiconductor and photonics designs and increasing challenges associated with advanced materials and shrinking process technology nodes across the EDA market. Based on Electronic System Design Alliance's breakdown of the EDA market, including SIP, which was valued at $17.0 billion in global revenue in 2023, we believe Silvaco's solutions compete in portions of the EDA software market representing $3.1 billion of the current global aggregate EDA software market. We believe these trends will increase the need for TCAD, EDA and SIP solutions that accelerate time-to-market at reduced development and manufacturing costs and deliver processes and devices with better operating performance, lower cost, reduced power and improved product yield.

We are a global leader in TCAD solutions for the power devices and display markets. Our TCAD solutions are designed to provide complete, fast, and accurate simulations and modeling of semiconductor and photonics device behavior, allowing our customers to design original, value-added processes and devices, explore trade-offs in performance, power, size and reliability and optimize their final design for manufacturing. By reducing the need to run expensive and time-consuming experiments in manufacturing, TCAD solutions enable companies to rapidly bring their products to market. Our TCAD solutions have been adopted by 3 of the 10 largest semiconductor companies by revenue in 2023, by 8 of the 10 largest flat panel display companies by revenue in 2023, and by 4 of the 10 leading power semiconductor devices companies in 2023.

Our EDA solutions provide analog custom design flows that bring electrical and physical layout views together with circuit simulation and physical verification including sign-off at select foundries to help ensure correct-by-design and high-yielding products before committing to final silicon. We provide device characterization and modeling solutions that enable our customers to generate accurate, high-quality models for use in simulation and analysis of analog, mixed-signal and radiofrequency, or RF, circuits across our target markets. Our EDA solutions have been adopted by 6 of the 10 largest semiconductor companies by revenue in 2023 and by 7 of the 10 largest flat panel display companies by revenue in 2023.

SIP solutions, including our offerings, provide pre-verified, high-yielding and silicon-proven SIP blocks designed to accelerate time-to-market for SoC designs. Our patented SIP fingerprint technology authenticates SIP before and after use in complex SoC designs to avoid costly design iterations and silicon re-spins. Our EDA solutions for SIP design integrate patented machine learning technologies with the goal of minimizing simulation time, chip area and

power consumption. We provide SIP management software at the enterprise-level for managing, tracking and controlling SIPs that are used in SoC designs.

We leverage decades of extensive technological expertise to provide our customers with agilely developed products. In doing so, we have built long-term relationships with select strategic customers that enable us to work with them from project inception in order to tailor solutions for their specific needs. These customer relationships help us improve our new product offerings for the larger market.

Since 2015, we have acquired ten businesses, assets and/or technologies to complement our existing product offerings, expand into new markets or grow our existing market share, increase our engineering talent and enhance our technical capabilities. Our acquisition strategy also allows us to accelerate new product offerings.

Our growth has further been driven by semiconductor and photonics companies' increasing research and development spend due to increasing complexities of new material, new devices, and new systems in the markets we address. We address such market needs by:

- Providing EDA, TCAD and SIP solutions that are interoperable and cost-effective and that our customers can use to introduce their products to market in a timely fashion;
- Using advanced research and development and agile product development techniques to provide our customers with tailored solutions in vertical markets such as display, photonics, power devices, and other markets where new materials or structures are being developed;
- Providing leading-edge products that complement IC design flows and are compatible with customers' existing design flows; and
- Providing production ready and proven SIP, EDA SIP, and SIP/IC design management solutions that can be utilized individually, or as a full interoperable solution.

In 2021, we generated $47.3 million in bookings and recognized $42.0 million of revenue, a $1.8 million net loss and $2.6 million of negative cash flow from operating activities. We also had a U.S. generally accepted accounting principles ("GAAP") operating loss of $3.5 million and a non-GAAP operating loss of $1.3 million during 2021. During 2022, we generated $49.7 million in bookings and recognized $46.5 million of revenue, a $3.9 million net loss and $2.1 million of negative cash flow from operating activities. We also had a GAAP operating loss of $1.9 million and a non-GAAP operating income of $2.3 million during 2022. During 2023, we generated $58.1 million in bookings and recognized $54.2 million of revenue, a $0.3 million net loss and $1.2 million of positive cash flow from operating activities. We also had a GAAP operating income of $1.1 million and a non-GAAP operating income of $4.4 million during 2023. As of December 31, 2023, we had over 800 customers, of which over 200 were academic institutions, that relied on our solutions worldwide. Our academic customers not only have the potential to provide future human resources, but also can act as beta testers and provide feedback that allows us to enhance our products. See *"*Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Operating Indicators and Non-GAAP Financial Measures*"* for additional information on bookings and non-GAAP operating income, as well as the reconciliation of operating income (loss) to non-GAAP operating income (loss).

Industry Background

Increasing semiconductor design complexity. The latest technological applications require greater semiconductor performance and functionality, which have necessitated the shift towards more advanced manufacturing process technologies, new materials, and continued reduction of transistor sizes. IC and SoC complexity have significantly increased to accommodate the increased number of functional SIP blocks per chip. The slowing of Gordon Moore's, or Moore's law (which states that the number of circuits on a microchip doubles every two years), has also led to the adoption of new semiconductor materials to address varying application requirements. All these factors have increased semiconductor design complexity, which in turn increases the probability for significant development delays and project failures. As a result, we believe there is a growing need for differentiated and cost-effective tools such as TCAD, EDA and SIP solutions that enable rapid and reliable development of products containing these newly added materials and technologies.

Increasing semiconductor manufacturing and development costs. With each reduction in manufacturing process geometry comes a corresponding increase in manufacturing and development costs. According to International Business Strategies, Inc. ("IBS"), the average cost of designing a 28nm chip is $40.0 million, a 7nm chip is $217.0 million, and a 5nm chip is $416.0 million and a 3nm chip will cost up to $590.0 million. The COVID-19 pandemic and subsequent semiconductor shortage have emphasized the need for supply chain optimization, further accelerating investments in semiconductor foundries. The latest foundries being built are focused on leading-edge manufacturing process technology nodes, primarily driven by mobile applications, and require higher manufacturing yield efficiencies to offset the substantial development costs. As a result of IC technologies moving to sub 7nm process technology

nodes and the resultant increase in design difficulty and development costs, we believe the continuing shift will increase demand for TCAD solutions in the design technology optimization loop to deliver high yields, accelerate time-to-market and further reduce costs by reducing the need to run expensive and time-consuming manufacturing experiments. In addition, as these trends continue, EDA solutions that meet manufacturing requirements and can reduce costs associated with potential production delays and project failures, and SIP solutions which can accelerate time-to-market by providing silicon-proven blocks that address complex SoCs and enable new technologies, such as IoT and HPC, are being more readily adopted to mitigate costs and shorten time to market.

Increasing end market diversity. There has been a significant growth in semiconductor demand driven by new applications in emerging markets such as automotive, HPC and IoT. Performance and functionality requirements significantly vary across each market, which drives new design complexities and increases manufacturing and development costs. The increased diversity of applications in which semiconductors are being used, is leading to a need for more complex semiconductors to satisfy the needs of such applications, which requires further time and cost to develop such semiconductor solutions. As a result, there is a growing need to accelerate time-to-market and reduce costs by adopting complete TCAD, EDA and SIP solutions that enable customers to design, simulate, verify and analyze their products from the concept stage all the way up to complete product yield.

Our Markets

To contend with industry performance requirements and new applications, engineers, researchers, and other professionals rely extensively on TCAD, EDA software tools and SIP for designing and optimizing advanced ICs components. Reliance on software tools and SIP has increased in recent years as design challenges have become increasingly complex.

Rapid increase in complexity of SoCs has been the result of shrinking manufacturing process geometries, application specific customization to improve computing performance, and adoption of new materials for high voltage applications and photonics computing. These changes have led to increased investments in our research and development.

Our solutions address the following markets:

- *Power Electronics Market.* With the advent of high-volume manufacturing of new process technologies such as SiC and GaN, many OEMs and ODMs are producing electronic devices and systems that benefit from these technologies. GaN is being used for low power/voltage, high frequency applications and SiC is being used for high power and high voltage switching power applications. Since 2021, we have gained over one hundred new customers that utilized, and were early adopters of, our TCAD and EDA solutions to address their simulation/analysis needs for these new technologies at foundries, device and process levels all the way up to the system design for power management.
- *Memory Market.* The memory market for semiconductors is expected to continue growing at a fast pace, driven by large increases in the demand for dynamic random-access memory and flash memory products. We believe our TCAD solution, complemented by our device modeling tools and services, enables memory design teams to explore new materials and device architectures and achieve optimum power and performance for memory elements.
- *Display Market.* With the growth in adoption of mobile electronics such as smartphones, smart watches, wearables and virtual reality, or VR, gaming, flat-screen TVs, and more, we believe semiconductors used in display technologies are of increasing importance. According to Allied Market Research, the global display market was valued at $124.1 billion in 2022 and is projected to reach $242.1 billion by 2032, representing a CAGR of 6.8% from 2023 to 2032. Display manufacturers are continuing to make large investments in organic light-emitting diode, or OLED, and active-matrix organic light-emitting diode, or AMOLED, as well as new technologies such as quantum dot-LED and MicroLED. These trends are driving large changes in materials and fabrication methods for displays.
- *Automotive Market.* The semiconductor content in the automotive market is rapidly growing and evolving, driven by vehicle electrification, advances in electronic control, vehicle connectivity to the internet and autonomous driving. According to Allied Market Research, these innovations are expected to lead to significant increases in the amount spent on semiconductor content in electrification of cars, from $59.7 billion in 2022 to a projected $153.9 billion by 2032, representing a CAGR of 10.1% from 2023 to 2032. The new requirements of the automotive market are driving the increasing adoption of different kinds of semiconductor materials such as silicon, or SiC, gallium nitride, or GaN, and other wide bandgap materials to replace traditional silicon in high-voltage power devices. Companies designing or manufacturing SiC or GaN devices for the power device market can use TCAD simulations to replace design of experiments and enable flexible foundry selection by reducing costly and time intensive physical trial and error cycles. We can also provide specialized EDA solutions and foundational SIPs that our customers integrate into their IC design flow.

- *Internet of Things Market*. IoT devices require a complex SoC to perform sensing, collecting data, processing data and connecting to other IoT devices or a central server or cloud through several wireless solutions. At the edge of IoT, new devices with ultra-low energy demands will be needed to harvest sensor data across a wide variety of environments. We provide a comprehensive portfolio of SIPs and tools for the IoT market, including Standard Cell IP, library creation and characterization tools, ultra-low power static random-access memories, or SRAM, compilers, connectivity IOs, microprocessor SIPs, and advance micro controller bus architecture, or AMBA, SIP Cores and Subsystem.
- *5G/6G and Mobile Communications Markets*. IDC estimates that mobile phone semiconductor revenue will reach $191.9 billion in 2026, representing a CAGR of 4.0% from 2021 to 2026, and we believe the shift to 5G/6G will increase demand within our industry due to the complex nature and design cycle of 5G/6G chips. The adoption of more advanced process technology nodes for 5G mobile devices means longer circuit simulation times due to substantial increases in unwanted electrical components (parasitics) in nanometer geometries. We believe our parasitic reduction and analysis tools are unique in the market, complementing existing tool flows. These solutions are complemented by our circuit simulation tool for RF, Physical Verification tools and our full analog/custom flow for analog block creation.
- *High Performance Computing Market.* According to Allied Market Research, the global HPC chipset market was valued at $5.7 billion in 2022 and is projected to reach $29.4 billion by 2032, representing a CAGR of 17.9% from 2023 to 2032. Our foundational SIPs, memory compilers and library creation EDA tools have been adopted by our customers in HPC applications, which we believe allow our customers to gain a performance edge by using specialized circuits. We also provide modeling services and circuit libraries for cryogenic temperatures used in quantum computing and our TCAD software is being used to design photonics devices.

Industry Challenges

Design and manufacturing of SoCs is a time intensive and costly process. Complex AI-driven high performance computing, IoT class of SoCs, high performance memories, and Graphics Processing Unit, or GPU, class processors cost millions to billions of dollars to develop. The development, qualification, and manufacturing cycle for processors, memories and SoCs varies by market and may require lengthy development times. Similarly designing power systems utilizing new materials such as GaN and SiC adds additional costs, time to market and complexity to the systems that enable AI. The main challenges for the industry include:

- Rapid increase of design complexity for ICs and SoCs.
- Rapid increase of design cost and time for ICs and SoCs.
- Evolving manufacturing complexity processes, supply chains and yields.

Our Solutions and Competitive Strengths

We are a provider of TCAD, EDA and SIP solutions. We have decades of expertise developing the “technology behind the chip” and providing solutions that span from atoms to systems, from providing software for the atomic level simulation of semiconductor and photonics material for devices, to providing software and SIP for the design and analysis of circuits and system level solutions. We are not part of the supply chain for semiconductor manufacturing process, rather part of the value chain, the process of enhancing the value of the products moving along the supply chain, particularly in the early stages of R&D and design of semiconductors. Our primary strengths include:

- *Enabling companies to accelerate IC and photonics designs to efficiently optimize devices.* Companies use TCAD solutions to model the fabrication process and devices used in semiconductors, including low-geometry CMOS, memory and photonics, thus potentially accelerating the time to develop technology and ramping to yield, reducing the need to run wafers, and optimizing devices, all of which can contribute to lower development costs. We develop our EDA design and simulation solutions and SIP to be tailored to specific technologies and market segments, to enhance design flows that optimize Power, Performance and Area-Cost, or PPA.
- E*nabling growth industries like AI, automotive, and high-performance computing*: Our solutions enable our customers’ memory devices, power devices and display technologies to play a crucial role in AI and other advanced applications. Our customers’ power devices are used in designing power systems for things like computers, cars, and servers, enabling them to run smoothly and efficiently. Our display technologies make it easier to interact with technologies like AI, virtual reality (“VR”), and augmented reality (“AR”), improving user experiences.
- *Early mover advantage in vertical markets.* For decades we have focused on vertical markets, such as display and power, and have developed industrial and academic partnerships that enable our agile and fast

development of solutions aligned with market needs, such as our TCAD and EDA software solutions tailored for use in the display and power markets.

- *Leading point tools complement existing chip design flows.* Point tools include Jivaro (parasitic reduction, often included in circuit simulation), Viso (parasitics analysis, often included in extraction), and Varman (statistical variation analysis, used in advanced technologies for cell and memory characterization).
- *Production-ready, also known as silicon-proven, SIP for SoC design.* We provide production-ready SIP to our customers including standard cells, memory and I/O SIP that is developed in-house. In addition, we provide SIP and design management tools that enable SIP validation at SoC level, potentially streamlining design workflows.
- *Development and support of our customers' specific needs.* Our size and focus on specific market segments allow us to develop highly agile solutions and to work with our customers with a goal of developing solutions that meet their specific needs. Through our collaboration with our academic partners such as Purdue University and Christian Doppler Labs at the Vienna University of Technology, our TCAD and EDA tools are made ready for the next generation of processes, materials and systems.
- *Interoperable product Portfolio among TCAD, EDA and SIP.* Our tools have compatible databases across all of our products for seamless scaling of customer designs.
- *Cost-effective end-to-end solutions.* We offer complete solutions for device characterization, compact model development and circuit simulation; analog custom design, including schematics, layout, extraction and design rule check, or DRC, and process and device TCAD. We believe that our software solution pricing is competitive, which is derived from factors such as costs associated with research and development, inflation, licenses mix, number of licenses per product and number of years per TBL, as well as required license maintenance and services.

Based on a report conducted by Electronic System Design Alliance, in 2022 we ranked second worldwide in the TCAD market based on revenue. Our solutions, many of which can be used in tandem with our competitors' tools, have been adopted by some of the leading power devices and display providers. These customers use our design software to address certain design challenges. We believe that our positions in the TCAD and power devices and displays markets are strengthened by our EDA product line capabilities. We believe that we have a competitive advantage in these markets in part due to our investment in advanced semiconductor and photonics TCAD solutions, including investments in atomistic simulations, process etch, process deposition and design of experiments, or DOE, that are artificial intelligence, or AI, driven.

We have also developed software that certain of our customers have labelled as having best-in-class point tools capabilities. To our knowledge, standalone resistor and capacitor, or RC, parasitic reduction (Jivaro) is not offered by competitors and is included in products like circuit simulation. We believe that we have a strong market position in this market niche and that our solution is competitive to other solutions in the market. Also, in the highly competitive analog custom design market, particularly for more mature technologies, we believe that our willingness and capability of developing process design kits, or PDKs, for specific technologies has the potential to give us a natural advantage.

We believe that we provide competitive SIP solutions targeting certain end markets. Our SIP solutions are qualified and silicon-proven at certain foundries, which we believe enables our customers using such foundries to lower their cost of development and reduce their time to market compared to SIP solutions that are not silicon-proven at such foundries.

To our knowledge, we are one of only two EDA/TCAD companies in the world that provide SIP to their customers. Unlike the non-EDA SIP companies, as an EDA company, we have open access to our own Analog Custom Design flow EDA software that we use for designing SIP for our customers. Further, we have developed SIP tools that not only automate generation and characterization of some of our SIPs, but also have SIP management tools as our product that we utilize to manage our SIP and customer SIPs.

Growth Strategy

To further our long-term growth and increase our market share, we have made initial investments in the following areas:

- *Focus on large, growing markets where we have cemented ourselves as a reliable solutions provider*. We seek to continue and expand our presence in the display, automotive semiconductor, memory device and IoT markets by capitalizing on the growth of our existing customers.
- *By increasing our Research and Development expenditures, we plan to expand our presence in established market segments*, which include fin field-effect transistor ("FinFET"), low-geometry CMOS technology, new

specialized SIP, fabrication technology process co-optimization, and photonics. Historically we have not participated materially in these markets.

- *Continue our history of strategic acquisitions to accelerate growth and expand our market footprint.* Historically, we have focused on acquisitions that provide us with technology (e.g., Purdue Atomics simulation tools, commercialized under our Victory Atomistic tools), technical talent, and revenue in new markets. We intend to continue to target acquisitions that allow us to expand our solutions portfolio to better service our customers' needs.
- *Leverage our technology in TCAD, EDA, SIP, and SIP management software*. We plan to continue to invest in the technology that differentiates us and where we can establish or expand our leadership position, such as TCAD for power devices, display, and photonics, simulation of large panels with complex device models, parasitic analysis and reduction, SIP management and fingerprinting, device characterization tools and services, and development of additional SIP.
- *Optimize our competitive advantage by addressing unique customer needs*. We pride ourselves on research and development agility, allowing us to design capabilities specific to customers' requirements and, where appropriate, integrate those capabilities into our software solutions.
- *Focus on a portfolio approach to the licensing and sale of our software platform*. We seek to differentiate ourselves through the breadth of our software and SIP offerings, addressing the full design cycle needs of our customers across applications and industries.
- *Expand our customer base through increased investment in sales and marketing.* We believe our serviceable market is under penetrated and that we can expand our customer base by increasing our marketing and sales resources, particularly in growing segments such as automotive and IoT.
- *Establish, maintain and expand relationships with key technology providers and academic partners*. We maintain successful relationships with SIP providers, foundries, design service companies, EDA companies, our commercial customers and academia. We plan to continue to expand our ecosystem to maximize our reach, integrate into established flows and offer world-class solutions.

Products and Technology

We are a provider of TCAD software, EDA software and SIP, and also provide general engineering and research support to serve our target markets. Within our TCAD, EDA, and SIP product lines, we offer a multitude of products and offerings to efficiently develop new semiconductor processes and devices.

TCAD Solutions and Products

TCAD software solutions, including our offerings, are used to help reduce the time and manufacturing cycles spent to develop semiconductor technologies and help reduce the costs during development cycles. TCAD is part of a design technology co-optimization, or DTCO, flow that is intended to improve designs across multiple domains (Layout, Process, Device, SPICE and RC extraction). Typical applications include:

- physical etch and deposition process simulation;
- calibration of doping profiles and metal oxide semiconductor, or MOS, bipolar transistors;
- modeled effects (including self-heating and thermal gradients for power device and thin-film transistor, or TFT);
- photonics simulation for solar cell, charge-coupled device, or CCD, complementary metal oxide semiconductor image sensor, or CIS, TFT, liquid crystal display, or LCD and OLED using ray tracing, finite-difference time domain, or FDTD, and timing memory, or TMM;
- single event effect and total dose simulation; and
- stress simulation.

We also offer TCAD modeling services that provide a solution for customers who have unique semiconductor device modeling requirements, but do not have the time or resources to operate TCAD software in-house.

EDA Software and Modeling Services

Our EDA software solutions cover multiple areas of analog/mixed-signal/RF circuit simulation, custom IC CAD and interconnect modeling, including support for CMOS, bipolar, diode, junction-gate field-effect transistor, or JFET, silicon on insulator, or SOI, TFT, high-electron mobility transistor, or HEMT, insulated-gate bipolar transistor, or IGBT, resistor and capacitor models. We also provide complete SPICE modeling services for the semiconductor industry, ideally suited to either complement in-house SPICE modeling capabilities when time is critical, or to provide complete SPICE modeling services for occasional needs.

SIP and EDA Software and Design Services

We provide software that optimizes and re-targets standard cell libraries. Automated tools improve productivity by automating standard cell library designs that would otherwise need to be done manually, sometimes by tens of designers. In addition, we provide automated standard cell library characterization tools that replace manual and labor-intensive characterization of standard cells.

Our full-featured standard cell libraries have demonstrated maximal density and routing performance. As a standard feature, all industry standard views (circuit description language, or CDL netlist, library exchange front, or LEF, graphic data system II, or GDSII, Liberty, parasitic extraction, or PEX Spice netlist, Verilog, very high speed integrated circuit hardware description language, or VITAL, electronic design interchange format, or EDIF and others) are provided from a consistent database.

SIP Management Tools and SIP

SIP and SoC Management Software. Our SIP and SoC Management Software (IP Vault) helps teams of designers to manage (release, revision control and contracts) and collaborate amongst the internal team, the SIP providers, and customers. IP Vault also provides the ability for the team to authenticate SIP blocks from various providers and also authenticate and fingerprint the chip that utilize these SIP blocks to verify that the correct SIP is being used in an SoC.

Silicon-Proven Soft IP Blocks. Our silicon-proven Soft IP blocks are embedded in SoCs and ICs in our targeted markets of automotive, IoT, wireless and High-performance Computing.

Fab Technology Co-Optimization, or FTCO™

We have combined our expertise in semiconductor technologies with machine learning and data analysis to develop an artificial intelligence-based solution named fab technology co-optimization, or FTCO™, for wafer-level fabrication facilities. FTCO uses manufacturing data to perform statistical and physics-based machine learning software simulations to create a computer model of a wafer, which we call the “digital twin” of the wafer that can be used to simulate the fabrication process.

Recent Developments

Micron Convertible Note

On April 16, 2024, we entered into a Note Purchase Agreement (the “Note Purchase Agreement”) with Micron Technology, Inc. (“Micron”), which has been and is our customer, pursuant to which on the same day we have issued, and Micron has agreed to purchase, a senior subordinated convertible promissory note in the principal amount of $5,000,000 (the “Micron Note”). The Micron Note is contractually subordinated to the East West Bank Loan through a subordination agreement with East West Bank, but is senior to all of our other existing debt and will be senior to any new future debt incurred (other than any undrawn amount available under the current East West Bank Loan) while it is outstanding. The Micron Note matures three years after the date of issuance and accrues interest at the rate of 8% annually. The Micron Note will mandatorily convert into a number of shares equal to (i) the outstanding principal amount and accrued interest divided by (ii) a conversion price equal to (a) the price to the public set forth on the front cover of the prospectus, times (b) 0.90 if the initial public offering of common stock is consummated on or prior to May 31, 2024; 0.85 if the initial public offering of common stock is consummated between June 1, 2024 and April 16, 2025; and 0.80 if the initial public offering of common stock is consummated after April 16, 2025, if in each case, such shares of our common stock will be eligible for resale pursuant to the registration statement of which this prospectus forms a part. We can prepay the Micron Note only with the prior consent of the holder of the Micron Note. Assuming that this offering is consummated prior to May 31, 2024 and assuming an initial public offering price of $18.00 per share (the midpoint of the price range set forth on the cover page of this prospectus), the Micron Note will convert into 310,562 shares of our common stock. In connection with the execution of the Note Purchase Agreement, we have agreed that the shares of common stock to be issued to Micron are eligible for resale pursuant to the registration statement of which this prospectus forms a part and not subject to a lock-up agreement with the underwriters, and that we will use our reasonable best efforts to preserve the effectiveness of the registration statement at least until such time as Micron no longer holds any of its shares issued upon conversion of the Micron Note or such shares are freely tradable pursuant to an exemption of the registration requirements under the rules and regulations of the Securities and Exchange Commission (the “SEC”) without any manner of sale or volume restrictions for at least 90 days. Further, if the shares to be issued to Micron upon conversion of the Micron Note are not registered concurrently with the initial public offering, the principal and accrued and unpaid interest of the previously outstanding Micron Note shall be repaid on the first business day following the date of the initial public offering.

Preliminary Results for the Three Months Ended March 31, 2024 (Unaudited)

We have not yet completed our closing procedures for the three months ended March 31, 2024. Presented below are certain estimated preliminary unaudited financial results for the three months ended March 31, 2024. These ranges are based on the information available to us at this time. We have provided estimated ranges, rather than specific amounts, because these results are preliminary and subject to change. These ranges reflect our management's best estimate of the impact of events during the quarter.

These estimates should not be viewed as a substitute for our interim unaudited condensed consolidated financial statements prepared in accordance with GAAP. Accordingly, you should not place undue reliance on these preliminary financial results. For example, during the course of the preparation of the respective financial statements and related notes, additional items may be identified that would require material adjustments to be made to the preliminary estimated results presented below. There can be no assurance that these estimates will be realized and these estimates are subject to risks and uncertainties, many of which are not within our control. These estimated preliminary results should be read together with "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Risk Factors," "Special Note Regarding Forward-Looking Statements" and our audited consolidated financial statements and the related notes thereto.

All of the data presented below has been prepared by and is the responsibility of management. Neither our independent registered public accounting firm, Moss Adams LLP, nor any other independent accountants, have audited, reviewed, compiled or performed any procedures with respect to the estimated preliminary financial results contained herein. Accordingly, Moss Adams LLP does not express an opinion or any other form of assurance with respect thereto.

The following includes our unaudited preliminary estimated selected financial results as of and for the three months ended March 31, 2024:

	Three Months Ended March 31,		
	2023 (Actual)	2024 (Estimated)	
		(Low) (unaudited)	(High)
		(in millions)	
Revenue	$ 14.3	$ 15.6	$ 15.9
Gross Profit	$ 12.3	$ 13.6	$ 13.9
Operating Income	$ 1.5	$ 1.9	$ 2.4

We expect unaudited preliminary estimated revenue for the three months ended March 31, 2024 will be approximately $15.6 million to $15.9 million, as compared to $14.3 million for the same period in 2023. The unaudited preliminary estimated increase in revenue from the three months ended March 31, 2023 to the three months ended March 31, 2024 is primarily due to increased demand for TCAD and EDA tools partially offset by decrease in IP sales. We expect unaudited preliminary estimated gross profit will be approximately $13.6 million to $13.9 million, as compared to $12.3 million for the same period in 2023. The unaudited preliminary estimated increase in gross profit from the three months ended March 31, 2023 to the three months ended March 31, 2024 is primarily due to the estimated increase of TCAD and EDA tool sales partially offset by decrease in IP sales. We expect unaudited preliminary estimated operating income will be approximately $1.9 million to $2.4 million, as compared to $1.5 million for the same period in 2023. The unaudited preliminary estimated increase in operating income from the three months ended March 31, 2023 to the three months ended March 31, 2024 is primarily due to higher gross profit from the estimated increase of TCAD and EDA tool sales, partially offset by a preliminary unaudited estimated increase in operating expenses. The estimated increase in operating expenses was primarily due to higher sales and marketing expenses.

Risk Factors Summary

There are a number of risks that you should consider before making an investment decision regarding this offering. These risks are discussed more fully in the section entitled "Risk Factors" following this prospectus summary. If any of these risks actually occur, our business, financial condition and results of operations could be materially and adversely affected. In such case, the trading price of our common stock would likely decline, and you may lose all or part of your investment. These risks include, but are not limited to, the following:

- We face significant competition from larger companies as well as from third-party providers who may deploy their resources to develop IP solutions internally.

- Our operating results are subject to significant fluctuations and, as a result, period-to-period comparisons of our results of operations are not necessarily meaningful and should not be relied upon as indicators of future performance.
- Our interim results of operations may be difficult to predict as a result of seasonality.
- Substantial, prolonged economic downturns in key industrial sectors and in major economic regions in which we operate, including China, may result in reduced software solutions sales and lower revenue growth.
- The success of our business depends on sustaining or growing our software license revenue and our maintenance and service revenue and the failure to increase such revenue would lead to a material decline in our results of operations.
- We also depend on growth in the semiconductor and photonics industries and in the end markets that use our products. Any slowdown in the growth of these industries and end markets could harm our business.
- If we are unable to deliver new and innovative software solutions or software license enhancements ahead of rapid technological changes in the market, our revenues could be materially adversely affected.
- We may have to invest more resources in research and development than anticipated, which could increase our operating expenses and negatively affect our operating results.
- Our international sales and operations constitute a substantial portion of our revenue and business operations and could be negatively affected by disruptions in international geographies caused by government actions, trade disputes, direct or indirect acts of war or terrorism, international political or economic instability or other similar events.
- A substantial portion of our revenue comes from our international sales channels, and we have significant operations in numerous international geographies. As such, any adverse fluctuations in exchange rates could adversely affect our performance.
- If we are unable to protect our proprietary technology and inventions through patents and other intellectual property rights, our ability to compete successfully and our financial results could be adversely impacted.
- Our success depends on the interoperability of our software solutions with our customers' intended use cases and with products and services of other companies, including our competitors.
- If our information technology systems, or those of third parties upon which we rely, or our data are or were compromised, we could experience adverse consequences resulting from such compromise, including but not limited to, regulatory investigations or actions, litigation, fines and penalties, disruptions of our business operations, reputational harm, loss of revenue or profits, and other adverse consequences.
- Adverse developments affecting the financial services industry could adversely affect our liquidity, financial condition and results of operations, either directly or through adverse impacts on certain of our vendors and customers.
- We may not realize the anticipated benefits of our acquisitions or investments, our business could be disrupted because of acquisitions or investments and, depending on how we finance such acquisitions, we could use significant amounts of cash.
- We may not be able to continue to obtain licenses to third-party software and intellectual property on reasonable terms or at all, which may disrupt our business and harm our financial results.
- Any dispute regarding our intellectual property may require us to indemnify customers, the cost of which could harm our business.
- As long as we are a controlled company, your ability to influence matters requiring stockholder approval will be limited, and the interests of our controlling shareholder may conflict with or differ from your interests as a stockholder.
- Pending or future investigations or litigation could have a material adverse effect on our results of operations and our stock price.
- We have identified a material weakness in our internal control over financial reporting. If our remediation measures are ineffective, or if we experience additional material weaknesses in the future or otherwise fail to maintain an effective system of internal controls in the future, we may not be able to report our financial condition or results of operations accurately or on a timely basis, prevent fraud or file our periodic reports in a timely manner and may incur additional costs to remediate, all of which may adversely affect investor confidence in us and our reported financial information and, as a result, the value of our common stock.

Implications of Being an Emerging Growth Company and a Smaller Reporting Company

As a company with less than $1.235 billion in revenue during our last fiscal year, we qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. An emerging growth

company may take advantage of specified reduced reporting and other requirements that are otherwise applicable generally to public companies. These provisions include, but are not limited to:

- being permitted to include only two years of consolidated financial statements and only two years of related "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure in this prospectus;
- an exemption from compliance with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended, or the Sarbanes-Oxley Act, on the design and effectiveness of our internal controls over financial reporting;
- an exemption from compliance with any requirement that the Public Company Accounting Oversight Board may adopt regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and financial statements;
- reduced disclosure obligations regarding executive compensation arrangements; and
- exemptions from the requirements of submitting certain executive compensation matters to stockholder advisory votes, such as "say-on-pay," "say-on-frequency" and "say-on-golden parachutes," and the correlation between executive compensation and performance and comparisons of the chief executive officer's compensation to our median employee compensation.

We have elected to take advantage of certain of these reduced disclosure obligations in the registration statement of which this prospectus is a part and may elect to take advantage of some or all of these reduced reporting and other requirements in the future. As a result, the information we provide to our stockholders may be different than the information you might receive from other public companies in which you hold equity interests.

In addition, Section 107 of the JOBS Act provides that an emerging growth company can take advantage of the extended transition period, provided in Section 13(a) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, for adopting new or revised accounting standards. As a result, we will be permitted to delay the adoption of new or revised accounting standards until such time as those standards would otherwise apply to private companies. We have elected to take advantage of this extended transition period for complying with new or revised accounting standards until the earlier of the date we (i) are no longer an emerging growth company; or (ii) affirmatively and irrevocably opt out of this extended transition period. As a result, our consolidated financial statements and the reported results of operations contained therein may not be directly comparable to those of other public companies.

We may take advantage of the foregoing provisions until the last day of our fiscal year following the fifth anniversary of the completion of this offering or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company upon the earliest of: (i) the last day of the first fiscal year in which our annual gross revenues are $1.235 billion or more; (ii) the date on which we have, during the previous three-year period, issued more than $1.0 billion in non-convertible debt securities; or (iii) the date on which we are deemed to be a "large accelerated filer," which will occur as of the end of any fiscal year in which we (x) have an aggregate market value of our common stock held by non-affiliates of $700.0 million or more as of the last business day of our most recently completed second fiscal quarter, (y) have been required to file annual and quarterly reports under the Exchange Act, for a period of at least 12 months and (z) have filed at least one annual report pursuant to the Exchange Act.

We qualify as a "smaller reporting company" as defined in the Exchange Act. We may continue to be a smaller reporting company even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as the market value of our voting and non-voting common stock held by non-affiliates is less than $250 million measured on the last business day of our second fiscal quarter, or our annual revenue is less than $100 million during the most recently completed fiscal year and the market value of our voting and non-voting common stock held by non-affiliates is less than $700.0 million measured on the last business day of our second fiscal quarter.

As a result, the information in this prospectus and that we provide to our investors in the future may be different than what you might receive from other public reporting companies.

For risks related to our status as an emerging growth company and a smaller reporting company, see "Risk Factors—General Risk Factors and Risks Related to Being a Public Company—We are an "emerging growth company" and a "smaller reporting company" and any decision on our part to comply with certain reduced reporting and disclosure requirements applicable to emerging growth companies could make our common stock less attractive to investors."

Corporate Information

We were incorporated in Delaware in November 2009. Our principal executive offices are located at 4701 Patrick Henry Drive, Building #23, Santa Clara, CA 95054. Our telephone number is (408) 567-1000, and our website address is www.silvaco.com. The information contained on, or that can be accessed through, our website is not incorporated by reference in this prospectus and does not form a part of this prospectus. You should not consider information contained on our website to be part of this prospectus in deciding whether to purchase shares of our common stock.

THE OFFERING

Common stock offered by us	6,000,000 shares of common stock.
Option to purchase additional shares of common stock	900,000 shares of common stock.
Common stock to be outstanding after this offering	28,545,663 shares of common stock (29,445,663 shares of common stock if the underwriters exercise their option to purchase additional shares in full).
Controlled company	Upon completion of this offering, we will be a "controlled company" within the meaning of the listing rules of Nasdaq. After the closing of this offering, our controlling stockholder will control us and will have, among other things, the ability to approve or disapprove substantially all transactions and other matters requiring approval by stockholders, including the election of directors. See the section titled "Management—Director Independence and Controlled Company Exemption."
Use of proceeds	We estimate that the net proceeds to us from this offering will be approximately $94.6 million (or approximately $109.6 million if the underwriters exercise their option to purchase additional shares in full), based on an assumed initial public offering price of $18.00 per share (the midpoint of the price range set forth on the cover page of this prospectus), and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use the net proceeds from this offering primarily for general corporate purposes, including working capital, selling and marketing activities, research and product development, general and administrative matters, the repayment of outstanding debt, and capital expenditures. We also intend to use a portion of the net proceeds from this offering to repay (i) the outstanding balance of our $4.0 million line of credit, or the 2022 Credit Line, from which we have drawn down $2.0 million as of December 31, 2023, payable to Katherine S. Ngai-Pesic, our controlling stockholder and the chair of our board of directors, or Ms. Ngai-Pesic and (ii) the outstanding balance of our $5.0 million loan agreement with East West Bank, or the East West Bank Loan, for which $4.3 million was outstanding as of April 26, 2024. If we elect, at our option, to satisfy the anticipated tax withholding and remittance obligations pursuant to the Optional RSU Net Settlement (as defined below) and pay the anticipated tax withholding and remittance obligations in lieu of applicable holders of RSUs selling shares underlying such RSUs in the open market to cover such tax obligations, a portion of the proceeds would be used to make such payments. We also may use a portion of the net proceeds to acquire complementary businesses, products, services, or technologies. However, we do not have agreements or commitments for any specific acquisitions at this time. See "Use of Proceeds."

Risk factors	You should read the section titled “Risk Factors” and the other information included in this prospectus for a discussion of certain factors to consider carefully before deciding to purchase any shares of our common stock.
Proposed Nasdaq trading symbol	“SVCO”

Unless otherwise indicated, the number of shares of our common stock to be outstanding after this offering is based on 22,545,663 shares of common stock (after giving effect to 2,235,101 shares to be issued in connection with the RSU Settlement (as defined below) and after giving effect to 310,562 shares to be issued in connection with the Micron Note conversion) outstanding as of December 31, 2023, and excludes:

- 1,337,625 shares of our common stock subject to the settlement of restricted stock units, or RSUs, outstanding as of December 31, 2023 granted under our 2014 Stock Incentive Plan, or the 2014 Plan, for which the liquidity-based vesting condition, or the Liquidity Event Requirement, will be satisfied upon the completion of this offering, but for which the time-based vesting condition, or the Time-Based Requirement (i) was not satisfied on or before December 31, 2023, or (ii) has not accelerated prior to December 31, 2023 (the Time-Based Requirement for 156,600 of these RSUs is anticipated to be satisfied on or before the closing of this offering but after December 31, 2023 (excluding any acceleration of the Time-Based Requirement), as a result of which 156,600 additional shares of our common stock are anticipated to be issued in connection with the Additional RSU Settlement, as defined below);
- 972,469 shares of our common stock subject to the settlement of RSUs granted subsequent to December 31, 2023 under the 2014 Plan for which the Liquidity Event Requirement will be satisfied upon the completion of this offering (the Time-Based Requirement for 241,311 of these RSUs is anticipated to be satisfied or accelerated in connection with the closing of this offering, as a result of which 241,311 additional shares of our common stock are anticipated to be issued in connection with the Additional RSU Settlement, as defined below);
- 3,425,278 shares of our common stock reserved for future issuance under our 2024 Stock Incentive Plan, or the 2024 Plan, which will become effective as of immediately prior to the completion of this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under the 2024 Plan and any reserved shares not issued or subject to outstanding awards under the 2014 Plan after the effective date of the 2024 Plan that are subsequently forfeited or terminated, all of which shares shall become available for issuance under the 2024 Plan; and
- 312,500 shares of our common stock reserved for future issuance under our 2024 Employee Stock Purchase Plan, or the ESPP, which will become effective as of immediately prior to the completion of this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under the ESPP.

Unless otherwise indicated, all information contained in this prospectus assumes or gives effect to:

- the filing and effectiveness of our amended and restated certificate of incorporation and the adoption of our amended and restated bylaws immediately prior to the completion of this offering;
- a 1-for-2 reverse split of our common stock, which we effected on April 29, 2024;
- the issuance of 310,562 shares of common stock upon the mandatory conversion of the Micron Note (based on the midpoint of the price range set forth on the cover page of this prospectus) in connection with this offering;
- no settlement or termination of unvested and outstanding RSUs after December 31, 2023, other than in connection with the RSU Settlement, as described below;
- the issuance of 2,235,101 shares of common stock upon the completion of this offering from the settlement of RSUs outstanding as of December 31, 2023 issued under the 2014 Plan for which the Liquidity Event Requirement will be satisfied upon the completion of this offering and the Time-Based Requirement (i) was satisfied on or before December 31, 2023 or (ii) will be accelerated in connection with the completion of this offering. We refer to this as the RSU Settlement;
  - in addition, for (i) RSUs outstanding as of December 31, 2023, for which the Liquidity Event Requirement will be satisfied upon the completion of this offering and for which the Time-Based Requirement is anticipated to be satisfied on or before the closing of this offering but after December 31, 2023 and (ii) RSUs granted after December 31, 2023 for which the Liquidity Event Requirement will be satisfied upon the completion of this offering and for which the Time-Based Requirement will be satisfied or accelerated in connection with the closing of this offering, the issuance of an aggregate of 397,911 shares of common stock upon the vesting and settlement of such RSUs. We refer to this as the Additional RSU Settlement. However, except as otherwise indicated, the information in this prospectus does not assume the vesting of these additional RSUs and the related issuance of these additional shares of common stock. See

"Executive Compensation—Agreements with Our Named Executive Officers and Potential Payments Upon Termination or Change of Control—Executive Severance Plan" and "Management—Non-Employee Director Compensation" for additional information regarding the acceleration of the Time-Based Requirement for certain RSUs of executive officers, senior management and directors;

- Further, we may, at our option, elect for the net settlement of any portion of the RSU Settlement or the Additional RSU Settlement to satisfy a portion or all of the applicable RSU holders' associated estimated tax withholding and remittance obligations, which if net settled in full, after giving effect to the withholding of an aggregate of 921,307 shares of common stock and of 160,177 shares of common stock for the RSU Settlement and the Additional RSU Settlement, respectively (based on the assumed initial public offering price of $18.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and an assumed blended 41% tax withholding rate), would result in the net issuance of an aggregate of 1,313,794 shares of common stock and an aggregate of 237,734 shares of common stock in connection with the RSU Settlement and the Additional RSU Settlement, respectively. We refer to this optional net settlement of any portion of the RSU Settlement and the Additional RSU Settlement as the Optional RSU Net Settlement. If we elect to net settle the RSU Settlement and the Additional RSU Settlement in full, the Optional RSU Net Settlement would result in an estimated cash payment of $19.5 million for the estimated tax withholding and remittance obligations. Except as otherwise indicated, the information in this prospectus does not assume the Optional RSU Net Settlement; and

- no exercise by the underwriters of their option to purchase up to 900,000 additional shares of our common stock.

SUMMARY CONSOLIDATED FINANCIAL DATA

The summary consolidated statements of operations data presented below for the years ended December 31, 2022 and 2023 and the summary balance sheet data as of December 31, 2023 presented below are derived from our audited consolidated financial statements included elsewhere in this prospectus. The summary consolidated statements of operations data presented below for the year ended December 31, 2021 are derived from our audited consolidated financial statements, which are not included in this prospectus. The following summary consolidated financial data should be read together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included elsewhere in this prospectus. The summary financial data included in this section are not intended to replace our financial statements and related notes thereto included elsewhere in this prospectus and are qualified in their entirety by our financial statements and related notes thereto included elsewhere in this prospectus. Historical results are not necessarily indicative of the results that may be expected for any period in the future.

Consolidated Statements of Operations Data	Year Ended December 31,		
	2021	2022	2023
	(in thousands, except share and per share data)		
Revenue:			
Software license revenue	$ 29,687	$ 34,411	$ 39,331
Maintenance and service	12,276	12,063	14,915
Total revenue	41,963	46,474	54,246
Cost of revenue	8,653	8,887	9,354
Gross profit	33,310	37,587	44,892
Operating expenses:			
Research and development	13,539	12,447	13,170
Selling and marketing	10,331	10,222	12,707
General and administrative	12,976	16,231	17,881
Impairment charges	—	560	—
Total operating expenses	36,846	39,460	43,758
Operating income (loss)	(3,536)	(1,873)	1,134
Gain on debt extinguishment	2,278	—	—
Interest and other expense, net	(317)	(355)	(624)
Income (loss) before income tax provision	(1,575)	(2,228)	510
Income tax provision	270	1,700	826
Net loss	$ (1,845)	$ (3,928)	$ (316)
Net loss per share attributable to common stockholders[(1)]:			
Basic and diluted	$ (0.09)	$ (0.20)	$ (0.02)
Weighted average shares used in computing per share amounts[(1)]:			
Basic and diluted	20,000,000	20,000,000	20,000,000
Pro forma net loss attributable to common stockholders, basic and diluted (unaudited)[(2)]:			$ (0.68)
Weighted-average shares used to compute pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited)[(2)]:			22,235,101

(1) See Note 2 to our financial statements as of, and for the years ended December 31, 2022 and 2023 included elsewhere in this prospectus for further information on the calculations of net income (loss) per share attributable to common stockholders.

(2) Basic and diluted unaudited pro forma net loss per share attributable to common stockholders for the year ended December 31, 2023 gives effect to the vesting and stock-based compensation expense related to RSUs subject to both the Time-Based Requirement and the Liquidity Event Requirement, for which the Liquidity Event Requirement will be satisfied in connection with this offering, as further

described in Note 2 and Note 11 to our consolidated financial statements as of, and for the year ended December 2023. The following table summarizes our unaudited pro forma net loss per share for the year ended December 31, 2023:

	Year Ended December 31, 2023
	(in thousands, except share and per share data)
Numerator:	
Net loss attributable to common stockholders	$ (316)
Pro forma stock-based compensation expense related to RSUs for which the vesting conditions will be satisfied in connection with this offering [1]	14,715
Pro forma net loss attributable to common stockholders	$ (15,031)
Denominator:	
Weighted average shares used to compute net loss per share attributable to common stockholders, basic and diluted	20,000,000
Pro forma adjustment to reflect vesting of RSUs for which the vesting conditions will be satisfied in connection with this offering[2]	2,235,101
Weighted-average shares used to compute pro forma net loss per share attributable to common stockholders, basic and diluted[3]	22,235,101
Pro forma net loss per share attributable to common stockholders, basic and diluted	$ (0.68)

(1) Reflects stock-based compensation expense to be recognized related to RSUs for which the Liquidity Event Requirement will be satisfied upon the completion of this offering, and for which the Time-Based Requirement was satisfied by the end of the period presented or will be accelerated upon the completion of this offering. See "Executive Compensation—Agreements with Our Named Executive Officers and Potential Payments Upon Termination or Change of Control—Executive Severance Plan" and "Management—Non-Employee Director Compensation."

(2) Reflects the issuance of 2,235,101 shares of our common stock in connection with the RSU Settlement as if the offering had occurred on December 31, 2023 and assuming such shares were outstanding for the entire period.

(3) Excludes 1,163,176 RSUs with respect to which the Time-Based Requirement was not satisfied as of December 31, 2023, and would not be accelerated upon the completion of this offering, because their effect would have been anti-dilutive for the periods presented.

Consolidated Balance Sheet Data	As of December 31, 2023		
	Actual	Pro Forma [1][4]	Pro Forma as Adjusted [1][2][3][4]
		(in thousands)	
Cash	$ 4,421	$ 9,421	$ 101,975
Accounts receivable, net of allowance for expected credit losses	4,006	4,006	4,006
Contract assets, net of allowance for expected credit losses	14,999	14,999	14,999
Working capital[5]	(4,105)	895	95,449
Total assets	40,885	45,885	138,439
Deferred revenue	12,953	12,953	12,953
Total liabilities	31,483	36,483	29,483
Additional paid-in capital	—	14,715	114,858
Retained earnings	11,392	(3,323)	(3,913)
Total stockholders' equity	9,402	9,402	108,956

(1) The pro forma column gives effect to (i) the filing and effectiveness of our amended and restated certificate of incorporation immediately prior to the completion of this offering, (ii) the RSU Settlement, (iii) stock-based compensation expense of approximately $14.7 million related to RSUs subject to the RSU Settlement reflected as an $14.7 million increase to additional paid-in capital and a $14.7 million decrease to retained earnings, as further described in Note 11 to our consolidated financial statements included elsewhere in this prospectus and (iv) the entry into the Micron Note.

(2) The pro forma as adjusted column gives effect to (i) the pro forma adjustment discussed in footnote (1) above, (ii) giving further effect to the sale of 6,000,000 shares of our common stock by us in this offering at an assumed initial public offering price of $18.00 per share (the midpoint of the range set forth on the cover page of this prospectus), after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, (iii) the repayment of the 2022 Credit Line following the completion of this offering and (iv) the issuance of 310,562 shares of our common stock upon the mandatory conversion of the Micron Note (based on the midpoint of the price range set forth on the cover page of this prospectus) in connection with this offering and the recognition of a $0.6 million loss on extinguishment upon the mandatory conversion of the Micron Note. Excluded from the table above are borrowings on our East West Bank Loan, which was undrawn at December 31, 2023, but for which $4.3 million has been drawn as of April 26, 2024 and is expected to be outstanding at the time of the initial public offering. Such amounts are anticipated to be repaid from the proceeds raised from the initial public offering.

(3) Each $1.00 increase (decrease) in the assumed initial public offering price of $18.00 per share (the midpoint of the price range set forth on the cover page of this prospectus) would increase (decrease) each of the amount of cash and cash equivalents, working capital

(deficit), total assets, additional paid-in capital and total stockholders' equity by approximately $5.6 million, assuming the number of shares offered, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering costs payable by us. Each 1.0 million increase (decrease) in the number of shares offered as set forth on the cover page of this prospectus, would increase (decrease) each of our cash and cash equivalents, working capital (deficit), total assets, additional paid-in capital and total stockholders' equity by approximately $16.7 million, assuming no change in the assumed initial public offering price, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

(4) The pro forma and pro forma as adjusted columns in the table above do not include the effects of the Additional RSU Settlement. The Additional RSU Settlement would result in an estimated additional stock-based compensation expense of $4.8 million, reflected as an additional increase to additional paid-in capital and decrease to retained earnings. The Optional RSU Net Settlement, if utilized at our option in full, would result in a $19.5 million decrease in cash and decrease in additional paid-in capital.

(5) Working capital is defined as current assets less current liabilities.

Key Operating Indicators and Non-GAAP Financial Measures

	Year Ended December 31,		
	2021	2022	2023
	(in millions)		
Bookings	$ 47.3	$ 49.7	$ 58.1
Non-GAAP operating income (loss)	$ (1.3)	$ 2.3	$ 4.4
Non-GAAP net income (loss)	$ (1.7)	$ 0.4	$ 3.4

We define a booking as a signed contract and related purchase commitment from a customer, based on the value set forth in a purchase order. We believe bookings are a useful metric to measure the success of customer sales and provide an indication of trends in our operating results that are not necessarily reflected in our revenue, because our revenue recognition is based on the later satisfaction of our customer obligations, and not of the sales to customers at the time of sale. Reported bookings may be subject to adjustments and potential cancellations prior to the satisfaction of our customer obligations.

We report our financial results in accordance with U.S. generally accepted accounting principles, or GAAP. However, our management believes that non-GAAP operating income (loss) and non-GAAP net income (loss) provide investors with additional useful information in evaluating our performance. These financial measure are not required by or presented in accordance with GAAP. We believe, however, that these non-GAAP financial measures, when taken together with our financial results presented in accordance with GAAP, provide meaningful supplemental information regarding our operating performance and facilitates internal comparisons of our historical operating performance on a more consistent basis by excluding certain items that may not be indicative of our business, results of operations or outlook. In particular, we believe non-GAAP operating income (loss) and non-GAAP net income (loss) provide useful supplemental information to investors and others in understanding and evaluating our results of operations, as well as provide a useful measure for period-to-period comparisons of our business performance.

Certain items are excluded from our non-GAAP operating income (loss) and non-GAAP net income (loss) because these items are non-cash in nature or are not indicative of our core operating performance, and render comparisons with prior periods and competitors less meaningful. We adjust operating income (loss) and net income (loss) for these items to arrive at non-GAAP operating income (loss) and non-GAAP net income (loss) because these amounts can vary substantially from company to company within our industry depending upon accounting methods and book values of assets, capital structure and the method by which the assets were acquired. For further explanation of the uses and limitations of these measures and a reconciliation of our non-GAAP operating income (loss) and non-GAAP net income (loss) to the most directly comparable GAAP measure, operating income (loss) and net income (loss), please see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Operating Indicators and Non-GAAP Financial Measures."

This key performance indicator and non-GAAP financial measures are presented for supplemental informational purposes only, should not be considered a substitute for financial information presented in accordance with GAAP and may differ from similarly titled metrics or measures presented by other companies.

The following table reconciles operating income (loss) to non-GAAP operating income (loss).

	Year Ended December 31,		
	2021	2022	2023
	(in thousands)		
Operating income (loss)	$ (3,536)	$ (1,873)	$ 1,134
Add:			
Acquisition-related litigation costs[1]	1,148	1,340	1,707
Executive severance[2]	280	—	—
Amortization of acquired intangible assets[3]	808	316	339
IPO preparation costs[4]	—	1,429	1,221
Regulatory compliance costs[5]	—	523	—
Impairment charges[6]	—	560	—
Non-GAAP operating income (loss)	$ (1,300)	$ 2,295	$ 4,401

The following table reconciles net loss to non-GAAP net income (loss).

	Year Ended December 31,		
	2021	2022	2023
	(in thousands)		
Net loss	$ (1,845)	$ (3,928)	$ (316)
Add:			
Acquisition-related litigation costs[1]	1,148	1,340	1,707
Executive severance[2]	280	—	—
Amortization of acquired intangible assets[3]	808	316	339
IPO preparation costs[4]	—	1,429	1,221
Regulatory compliance costs[5]	—	523	—
Impairment charges[6]	—	560	—
Change in fair value of contingent consideration[7]	295	(211)	325
Foreign exchange (gain) loss	(93)	525	335
Gain on debt[8]	(2,278)	—	—
Income tax effect of non-GAAP adjustments[9]	—	(137)	(169)
Non-GAAP net income (loss)	$ (1,685)	$ 417	$ 3,442

(1) Reflects litigation-related expenses incurred in connection with our acquisitions.
(2) Includes executive severance which occurred in connection with management changes.
(3) Reflects the amortization of intangible assets attributable to our acquisitions.
(4) Reflects one-time costs including third-party professional services fees and costs incurred in connection with, and in preparation for, this offering. Such costs do not include those costs that were considered direct and incremental to the offering and therefore capitalized as deferred transaction costs.
(5) Represents certain legal fees and costs associated with export compliance that are considered non-recurring.
(6) Reflects impairment charges related to certain intangible assets assumed through our acquisition of PolytEDA Cloud LLC, or PolytEDA. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Components of Results of Operations—Impairment Charges."
(7) Includes the change in fair value of contingent consideration recorded in connection with our acquisitions.
(8) Reflects one-time loan forgiveness for our unsecured loan under the Paycheck Protection Program in June 2021.
(9) Reflects the increase in income tax expenses due to Non-GAAP adjustments.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all other information in this prospectus, including our audited consolidated financial statements and the related notes and the section of this prospectus titled "Management's Discussion and Analysis of Financial Condition and Results of Operations," before investing in our common stock. If any of the following risks are realized, in whole or in part, our business, financial condition, results of operations, and prospects could be materially and adversely affected. In that event, the price of our common stock could decline, and you could lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business, financial condition, results of operations, and prospects. The risks described below, and statements found elsewhere in this prospectus, contain forward-looking statements. You should read the explanation of the qualifications and limitations on forward-looking statements discussed under the caption "Special Note Regarding Forward-Looking Statements" beginning on page 52.

Risks Related to Our Business and Industry

We face significant competition from larger companies as well as from third-party providers who may deploy their resources to develop IP solutions internally.

We are engaged in a competitive segment of the global semiconductor and photonics industries. Our competitive landscape is characterized by competition from companies that have greater resources than us. A variety of factors could adversely impact our ability to compete, including rapid technological change in our software solution design, customers that make purchase decisions based on a mix of factors of varying importance and continuous declines in average selling prices of our software solutions. We compete principally on the basis of technology, license quality and features, license terms, compatibility, reliability, interoperability among products and price and payment terms.

We compete against larger companies including Synopsys, Inc., or Synopsys, Coventor, Inc., a Lam Research company, Cadence Design Systems, Inc., or Cadence, Siemens EDA, Ansys, Inc., Arm Limited, and CEVA, Inc. Such companies have greater name recognition than us and possess substantial financial, technical, research and development and engineering resources that can be deployed so they can develop competing TCAD, EDA and SIP solutions. Varying combinations of these resources provide advantages to these competitors that enable them to influence industry trends and the pace at which industries adapt to these trends. A strong competitive response from one or more of our competitors to our marketplace efforts, or a shift in customer preferences to competitors' products, could result in increased pressure to lower our prices more rapidly than anticipated, increased selling and marketing expense, and/or market share loss. The consolidation of our competitors or collaboration among our competitors to deliver more comprehensive offerings than they could prior to consolidation may also impact our ability to compete effectively. To the extent our revenue is negatively impacted by competitive pressures and reduced pricing, our business could be harmed.

In addition, our ability to compete in our market is subject to a variety of factors, many of which are beyond our control. In particular, any of the below factors could significantly affect our ability to compete and could harm our business:

- Our ability to anticipate and lead critical software solution development cycles and technological shifts as driven by our target markets, to innovate rapidly and efficiently and to improve our existing solutions;
- Decisions by semiconductor companies and/or OEMs to develop IP internally, rather than license IP from outside vendors due to strategic changes, enhanced internal capability, budget constraints or excess engineering capacity;
- Our ability to maintain and improve upon our current research and development collaboration agreements;
- Whether any competitor substantially increases its engineering and marketing resources to compete with our software solutions;
- The challenges of developing, or acquiring externally developed, technology solutions that are adequate and competitive in meeting the rapidly evolving requirements of next-generation design challenges;
- Our ability to expand into established market segments;
- Our ability to compete on the basis of payment terms; and
- The potential effects of geopolitical conflicts, such as the ongoing trade disputes between the United States and China and Russia's invasion of Ukraine, including retaliatory and regulatory actions, on purchasing, development, sales and innovation responses and trends in response to such conflicts.

We may also be unable to reduce the cost of our software solutions sufficiently to enable us to compete with our competitors or other third-party providers who may deploy their resources to develop IP solutions internally. Our cost

reduction efforts may not allow us to keep pace with competitive pricing pressures and could adversely affect our gross margins. To the extent we are unable to reduce the prices of our software solutions and remain competitive, our revenue will likely decline, resulting in further pressure on our gross margins, which could harm our business.

Our operating results are subject to significant fluctuations and, as a result, period-to-period comparisons of our results of operations are not necessarily meaningful and should not be relied upon as indicators of future performance.

The majority of our software license revenue is treated as point in time revenue at the start of the license period, so past revenue may not be indicative of the amount of revenue in any future period. Significant portions of our anticipated future revenue, therefore, will likely depend upon our success in attracting new customers or continuing or expanding our relationships with existing customers. However, revenue recognized from licensing arrangements vary significantly from period to period, depending largely on bookings recorded during a quarter, and is difficult to predict. In addition, as we expand our business into new markets, our licensing contracts may be smaller in volume but greater in value, which may result in further fluctuations in our software license revenue quarter to quarter. Our ability to succeed in our licensing efforts will depend on a variety of factors, including the market positioning, performance, quality, breadth and depth of our current and future IP and solutions as well as our sales and marketing success. Our failure to obtain future licensing customers would impede our future revenue growth and could materially harm our business.

Additionally, fluctuations may be caused by many other factors, including the timing of new software license releases or enhancements by us or our competitors, the license mix and timing of bookings and TBL renewals, software bugs or defects or other software solution quality problems, competition and pricing changes, customer booking or renewal deferrals in anticipation of new software solutions or enhancements, changes in demand for our software solutions, changes in operating expenses, changes in the mix of software license and maintenance and service revenue, timing of our collection of cash, personnel changes and general economic conditions.

Further, we and our customers are affected by general business and economic conditions in the United States and globally. These conditions include short-term and long-term interest rates, inflation, money supply, political issues, legislative and regulatory changes, including the imposition of new tariffs affecting our or our customers' products and services, fluctuations in both debt and equity capital markets and broad trends in industry and finance, all of which are beyond our control. Any adverse changes in general domestic and global economic conditions that may occur in the future, including any recession, economic slowdown or disruption of credit markets, may lead to lower demand for products that incorporate our solutions. Macroeconomic conditions that affect the economy and the economic outlook of the United States and the rest of the world, including inflation and changes in currency valuations, could adversely affect us, our customers and vendors, which could have a material adverse effect on our business, financial condition and results of operations.

As a result of these and other factors, you should not rely on the results of any prior interim or annual periods, or any historical trends reflected in such results, as indications of our future revenue or operating performance. Fluctuations in our revenue and operating results could cause our stock price to decline and, as a result, you may lose some or all of your investment.

Our interim results of operations may be difficult to predict as a result of seasonality.

Our results of operations also have fluctuated significantly as a result of seasonality. For example, new year celebrations in certain countries in Asia, summer holidays in Europe and the United States, and winter holidays globally have, in the past, resulted in a slowdown in demand for our software solutions in affected locations. The impact of this cyclicality on our business is evident in lower bookings, including software license renewals and revenue in the second and third quarters of certain years as compared to first and fourth quarters of that year. The seasonality of our business is also affected by our customers' research and development cycles. For example, our bookings generally increase when our customers' increase their research and development spend on their next generation products, which we traditionally see occur in the first quarter and last quarter of each year in part due to our customers' budgetary cycles. We may also be affected by additional seasonal trends in the future, particularly as our business continues to mature. Such seasonality may result from a number of factors, including a slowdown in our customers' procurement process during certain times of the year, both domestically and internationally, and customers choosing to spend remaining budgets shortly before the end of their fiscal years. Seasonality has in the past caused, and may cause in the future, fluctuations in our results of operations and financial metrics, and make forecasting our future results of operations and financial metrics more difficult.

Substantial, prolonged economic downturns in key industrial sectors and in major economic regions in which we operate, including China, may result in reduced software solution sales and lower revenue growth.

Our sales are based significantly on end user demand for our software solutions in the display, power devices, automotive, memory, HPC, IoT, and 5G/6G mobile markets. Many of these markets periodically experience economic declines. These economic declines may be exacerbated by other economic factors, such as the recent increase in global energy prices. These economic factors may adversely affect our business by extending sales cycles and reducing revenue.

Our customers supply semiconductor solutions to a wide spectrum of goods and services providers in all major economic regions. Our performance is materially impacted by general economic conditions and the performance of our customers. Our management team forecasts macroeconomic trends and developments and integrates them through long-range planning into budgets, research and development strategies and a wide variety of general management duties. To the extent that our forecasts are overly optimistic or overly pessimistic about the performance of an economy or sector, our performance may be hindered because of a failure to properly match corporate strategy with economic conditions.

Terrorist attacks, war and other increased global hostilities, including the ongoing conflicts between Russia and Ukraine and Israel and Hamas, pandemics, including the COVID-19 pandemic, and natural disasters have, at times, contributed to widespread uncertainty and speculation in the semiconductor markets. For example, 60% and 60% of our revenue was derived from customers in Asia for the years ended December 31, 2022 and 2023, respectively.

For each of the years ended December 31, 2022 and 2023, 23% of our revenue was derived from our China-based operations. China has been recently experiencing an economic slowdown, which, if continued, could adversely impact our revenue derived from China-based operations in future periods. Further, geopolitical disruptions among the United States and China could result in the suspension or delay of purchases of our software solutions by our customers in China, which could inhibit our ability to secure similar levels of revenue in the future from such customers or otherwise. See "—We face risks associated with doing business in China." Similar uncertainties and speculation may result in further economic contraction, resulting in the suspension or delay of purchases of our software solutions by our customers, which could harm our business, financial condition and results of operations.

The success of our business depends on sustaining or growing our software license revenue and our maintenance and service revenue and the failure to increase such revenue would lead to a material decline in our results of operations.

Our revenue consists of software license fees and other fees and royalties paid for access to our technologies and other maintenance and services we provide to our customers. Our success at continuing to derive revenue from existing customers requires that we continue to service their needs adequately and provide them with solutions that drive value for them. Our ability to secure and renew the software licenses from which our revenue is derived depends on our customers adopting our solutions and may require us to incur significant expenditures and dedicate engineering resources to the development or enhancement of our software licenses without assurance that our solutions will be licensed. If we incur such expenditures and fail to secure revenue from such customers, our results of operations may be adversely affected. If we fail to grow our software license revenue, we are likely to consequently fail to grow our maintenance and service revenue, which would further adversely affect our results of operation. Further, because of the significant costs associated with qualifying new suppliers, customers are likely to use the same or an enhanced version of solution from existing suppliers across a number of similar and successor products for a lengthy period of time. As a result, if we fail to sell our solutions to any particular potential new customer, we may lose the opportunity to make future sales of those solutions to that potential customer for a significant period of time, or at all, and we may experience an associated decline in revenue relating to those products.

From 2016 through 2023, we generated revenues from licensing a certain SIP to our customers, which we licensed from a third party. See "Business—Agreement with NXP." The license agreement relating to this SIP expired on October 30, 2023. During the years ended December 31, 2022 and 2023, we generated $4.2 million, and $4.5 million in software license revenue, respectively, from licensing this SIP to our customers. In connection with this license agreement, we recognized $2.1 million, and $2.0 million in royalty expense during the years ended December 31, 2022 and 2023, respectively. As of April 11, 2024, we amended the license agreement with NXP, which extended the term of the licensing agreement for an additional five years. However, during the period between October 30, 2023 and April 11, 2024, we experienced a decline in revenue associated with the expiration of the agreement with NXP. If in the future, we enter into additional licensing agreements with other third parties and are unable to extend the term of those licensing arrangements, we may experience an associated decline in revenue relating to those products.

We may not be able to maintain or expand sales to our significant customers for a variety of reasons, and our customers can stop incorporating or using our solutions, decline to renew their agreements or terminate their

agreements, often with limited notice to us and often with little or no penalty. The loss of any significant customers, a reduction in sales to any significant customers, a significant delay or negative development in our customers' product development plans, or our inability to attract new significant customers or secure new significant design wins, could negatively impact our business.

The cyclical nature of the semiconductor and photonics industries may limit our ability to maintain or improve our revenue.

The semiconductor and photonics industries are highly cyclical and are prone to significant downturns from time to time. Cyclical downturns can result from a variety of market forces including constant and rapid technological change, rapid product obsolescence, price erosion, evolving standards, short product life cycles and wide fluctuations in product supply and demand, all of which can result in significant declines in semiconductor demand and thus demand for our software solutions. We have experienced downturns in the past and may experience such downturns in the future. For example, the industry experienced a significant downturn in connection with the most recent global recession in 2008, and further experienced a downturn in 2020 as a result of the COVID-19 pandemic.

These downturns have been characterized by diminished product demand, production overcapacity, high inventory levels and accelerated erosion of average selling prices. Recently, downturns in the semiconductor and photonics industries have been attributed to a variety of factors, including the COVID-19 pandemic, ongoing trade disputes between the United States and China, weakness in demand and pricing for semiconductors across applications and shortages. Recent downturns have directly impacted our business, as has been the case with many other companies, suppliers, distributors and customers in the semiconductor and photonics industries and other industries around the world, and any prolonged or significant future downturns in the semiconductor and photonics industries could harm our business.

We also depend on growth in the semiconductor and photonics industries and in the end markets that use our products. Any slowdown in the growth of these industries and end markets could harm our business.

The growth of our TCAD, EDA and SIP markets are dependent on the semiconductor and photonics industries. A substantial portion of our business and revenue depends upon the commencement of new design projects by semiconductor manufacturers, systems companies and their customers. The increasing complexity of designs of or SoC, ICs, electronic systems and customers' concerns about managing costs, have previously led to, and in the future could lead to, a decrease in design starts and design activity in general. For example, in response to this increasing complexity, some customers may choose to focus on one discrete phase of the design process or opt for less advanced, but less risky, manufacturing processes that may not require new or enhanced design solutions. Demand for our software solutions and services could decrease and our financial condition and results of operations could be adversely affected if growth in the semiconductor and photonics industries slows or stalls, including due to the impact of inflation or a sustained global supply chain disruption. Inflation has accelerated in the United States and globally as a result of global supply chain issues, a rise in energy prices, and strong consumer demand. An inflationary environment can increase our cost of labor, energy and other operating costs and could also impact and reduce the number of customers who purchase our software solutions as credit becomes more expensive or unavailable.

Furthermore, many of our customers outsource the manufacturing of their semiconductor designs to foundries. Our customers also frequently incorporate third-party IP, whether provided by us or other vendors, into their designs to improve the efficiency of their design process. However, if we fail to optimize our EDA and SIP solutions for use with major foundries' manufacturing processes or major IP providers' products, or if our access to such foundry processes or third-party IP licenses is hampered, then our solutions may become less desirable to our customers, resulting in an adverse effect on our business and financial condition.

Our continued success will also depend in large part on general economic growth and growth within our target markets including the display, power devices, automotive, memory, HPC, IoT, and 5G/6G mobile markets. Factors affecting these markets could seriously harm our customers and/or end customers and, as a result, harm us, examples of which include:

- Reduced sales of our customers' and/or end customers' products;
- The effects of catastrophic and other disruptive events at our customers' and/or end customers' offices or facilities;
- Increased costs associated with potential disruptions to our customers' and/or end customers' supply chain and other manufacturing and production operations, including to ongoing supply chain issues caused by the current COVID-19 pandemic and similar disruptions that may occur in future;
- The deterioration of our customers' and/or end customers' financial condition;

- Delays and project cancellations as a result of design flaws in the products developed by our customers and/or end customers;
- The inability of our customers and/or end customers to dedicate the resources necessary to promote and commercialize their products;
- The inability of our customers and/or end customers to adapt to changing technological demands resulting in their products becoming obsolete; and
- The failure of our customers' and/or end customers' products to achieve market success and gain broad market acceptance.

Any slowdown in the growth of these end markets could harm our business.

If we are unable to deliver new and innovative software solutions or software license enhancements ahead of rapid technological changes in the market, our revenues could be materially adversely affected.

We operate in an industry generally characterized by rapidly changing technology and frequent new product introductions that can render existing products obsolete or unmarketable. A major factor in our future success will be our ability to anticipate technological changes and to develop and introduce, in a timely manner, enhancements to our existing software solutions to meet those changes. If we are unable to introduce new software solutions and to respond quickly to industry changes, our business, financial condition, results of operations and cash flows could be materially adversely affected.

The introduction and marketing of new or enhanced software solutions requires us to manage the transition from existing software licenses to minimize disruptions in customer purchasing patterns. There can be no assurance that we will be successful in developing and marketing, on a timely basis, new software solutions, or software license enhancements that our new software licenses will address the changing needs of the marketplace, or that we will successfully manage the transition from existing products. From time to time, we may agree to hold back certain of our software license enhancements for exclusive use of one or a small number of customers, which may limit our ability to timely adapt our broader software solutions range to meet technological innovation by our competitors or the needs of our other customers.

We may have to invest more resources in research and development than anticipated, which could increase our operating expenses and negatively affect our operating results.

To contend with industry performance requirements and new applications, engineers, researchers, and other professionals rely extensively on TCAD and EDA software tools to design and optimize advanced IC components. Reliance on TCAD and EDA software tools has increased in recent years as design challenges have become increasingly complex, which influences our development cycle and consequently our performance and results of operations. Additionally, shrinking manufacturing process geometries, application specific customization to improve computing performance, and adoption of new materials for high voltage applications and photonics computing has led to a rapid increase in the complexity of SoCs. We currently devote substantial resources to the research and development of new and enhanced software solutions. However, we may be required to devote more resources than anticipated to address requirements for specific target markets, new competitors, technological advances in the semiconductor and photonics industries or by competitors, our acquisitions, our entry into new markets, or other competitive factors. If we are required to invest significantly greater resources than anticipated without a corresponding increase in revenue, our operating results could decline. Additionally, our periodic research and development expenses may be independent of our level of revenue, which could negatively impact our financial results. We expect these expenses to increase in the foreseeable future as our technology development efforts continue, and there can be no guarantee that our research and development investments will result in software solutions that result in additional revenue.

We may also decide to increase our research and development investment to seize customer or market opportunities, which could negatively impact our financial results.

Consolidation among our customers and within the industries in which we operate may negatively impact our operating results.

A number of business combinations, including mergers, asset acquisitions and strategic partnerships, among our customers in the semiconductor and photonics industries have occurred over the last several years, and more could occur in the future. Consolidation among our customers could lead to fewer customers or the loss of customers, increased customer bargaining power or reduced customer spending on software and services. Consolidation among our customers could also reduce the demand for our software solutions and services if customers streamline research and development or operations, reduce purchases or delay purchasing decisions.

Reduced customer spending or the loss of a number of customers, particularly our large customers, could adversely affect our business, financial position and results of operations. In addition, we and our competitors from time to time acquire businesses and technologies to complement and expand our respective software solutions offerings. Consolidated competitors could have considerable financial resources, channel influence, and broad geographic reach, allowing them to engage in competition on the basis of software solution differentiation, pricing, marketing, services, support and more. If any of our competitors consolidate or acquire businesses and technologies that we do not offer, they may be able to offer a larger technology portfolio, additional support and service capability or lower prices, which could negatively impact our business and results of operations.

Our international sales and operations constitute a substantial portion of our revenue and business operations and could be negatively affected by disruptions in international geographies caused by government actions, trade disputes, direct or indirect acts of war or terrorism, international political or economic instability or other similar events.

A significant portion of our revenue comes from outside the United States. For example, for the years ended December 31, 2022 and 2023, 68%, and 70%, respectively, of our revenue was from international customers. Risks inherent in our international business activities include imposition of government controls, export license requirements, restrictions on the export of critical technology, products and services, political and economic instability, trade restrictions, changes in tariffs and taxes, difficulties in staffing and managing international operations, longer accounts receivable payment cycles and the burdens of complying with a wide variety of foreign laws and regulations. Effective patent, copyright and trade secret protection may not be available in every foreign country in which we sell our software solutions and services. Our business, financial condition, results of operations and cash flows could be materially adversely affected by any of these risks.

In addition, we have offices globally with our sales and research and development being conducted in offices located in numerous geographical locations. Moreover, conducting business outside the United States subjects us to a number of additional risks and challenges, including:

- Changes in a specific country's or region's political, regulatory or economic conditions;
- Our ability to maintain our offices and/or operations in countries or regions experiencing military, political or social instability;
- A pandemic, epidemic or other outbreak of an infectious disease, including the current COVID-19 pandemic, which may cause us or our distributors, vendors and/or customers to temporarily or completely suspend our or their respective operations in the affected city or country;
- Compliance with a wide variety of domestic and foreign laws and regulations (including those of municipalities or provinces where we have operations) and unexpected changes in those laws and regulatory requirements, including uncertainties regarding taxes, social insurance contributions and other payroll taxes and fees to governmental entities, tariffs, quotas, export controls, export licenses and other trade barriers;
- Unanticipated restrictions on our ability to sell to foreign customers where sales of software solutions and the provision of services may require export licenses or are prohibited by government action, unfavorable foreign exchange controls and currency exchange rates;
- Imposition of tariffs and other barriers and restrictions, including trade tensions such as U.S.-China trade tensions;
- Potential for substantial penalties and litigation related to violations of a wide variety of laws, treaties and regulations, including labor regulations, export control, sanctions and anti-corruption regulations (including the U.S. Foreign Corrupt Practices Act of 1977, as amended, and the U.K. Bribery Act);
- Difficulties and costs of staffing and managing international operations across different geographic areas, time zones and cultures;
- Changes in diplomatic and trade relationships.
- Potential political, legal and economic instability, armed conflict, and civil unrest in the countries in which we and our customers are located;
- Difficulty and costs of maintaining effective data security;
- Inadequate protection of our IP;
- Nationalization and expropriation;
- Restrictions on the transfer of funds to and from foreign countries, including withholding taxes and other potentially negative tax consequences;
- Unfavorable and/or changing foreign tax treaties and policies;
- Increased exposure to general market and economic conditions outside of the United States; and

- Currency exchange rate fluctuations and the resulting effect on our revenue and expenses, and the cost and risk of entering into hedging transactions if we choose to do so in the future.

Additionally, countries in certain international regions in which we operate have continued to experience weaknesses in their currency, banking, and equity markets. These weaknesses could adversely affect customer demand for our software solutions and could have an adverse effect on our business, financial condition and results of operations.

We face risks associated with doing business in China.

We face increased regulatory uncertainties with respect to our China-based operations, including our wholly foreign-owned enterprise operating in China, any joint ventures we may form or contribute IP or other resources to in the future and sales to China-based customers.

For each of the years ended December 31, 2022 and 2023, 23% of our revenue was derived from our China-based operations. Our operating expenses in China were $2.8 million, and $3.2 million, respectively, for the years ended December 31, 2022 and 2023.

On June 3, 2021, President Biden issued Executive Order 14032 (Addressing the Threat from Securities Investments that Finance Certain Companies of the People's Republic of China) targeting entities that are deemed part of the Chinese military-industrial complex. Additionally, on October 7, 2022, the Bureau of Industry and Security of the U.S. Department of Commerce, or BIS, issued new export controls related to the Chinese semiconductor manufacturing, advanced computing and supercomputer industries. The new export controls impose broad end-use and other restrictions on facilities in China that develop or produce semiconductor chips or manufacturing equipment, which may impact our ability to license or support our software solutions to entities in or doing business with certain advanced AI or "supercomputer" design companies, foundries and manufacturers of assemblies and components in China. In addition, in October 2023 the BIS tightened restrictions and compliance burdens on the transfer to China of certain advanced artificial intelligence chips, semiconductors and supercomputing items, software and technology subject to U.S. export controls, in addition to restricting sales to certain semiconductor fab facilities in China. Moreover, restrictions were implemented on U.S. persons' activities in support of the transfer of certain items not subject to U.S. export controls. The extraordinary complexity of these rules, combined with the likelihood of further amendments from BIS, significantly increases our risk of non-compliance, which could result in fines and other penalties, and could change how these rules impact us. While we continue to adjust our policies and practices to ensure compliance with these regulations, and we will seek to mitigate their impact, there can be no assurances that current or future regulations and tariffs will not have a material adverse effect on our business. We maintain policies and procedures reasonably designed to ensure compliance with applicable trade control requirements, laws, and restrictions, including prohibiting the export, re-export or transfer of technology to companies on the Entity List maintained by BIS or other governmental restricted party lists, as well as prohibiting the sale of our products in certain countries. However, due to our global operations, we cannot ensure that our policies and procedures, including related safeguards, will effectively prevent violations, including the unauthorized diversion of products to countries or persons that are the target of U.S. sanctions; the export, re-export, or transfer of technology to companies on BIS's Entity List or other governmental restricted party lists; failure to comply with rules related to import and export of products; appropriate import product classifications; or other trade accounting requirements, laws, and restrictions.

On August 9, 2023, President Biden issued an executive order addressing investments by U.S. persons in companies located in designated countries of concern, currently, China (including Hong Kong and Macau) that engage with certain categories of sensitive technology and products, including semiconductors and microelectronics, quantum information technologies and AI. The executive order requires regulations that would implement limits and potential notification requirements on such investments and was accompanied by an advance notice of proposed rule-making that outlines the intended scope of the program and solicits input from the public regarding the implementation of the executive order. There are no currently effective restrictions or notification requirements; further rule-making is needed to implement the executive order. While we believe it is possible that such regulations may impact our customers, our suppliers, or our business with respect to China, given the uncertainties with respect to the timing and ultimate requirements of these regulations, we are unable to assess the extent of any such impact.

Further U.S. government escalation of restrictions related to China and increased restrictions on Chinese exports may lead to regulatory retaliation by the Chinese government and possibly further escalate geopolitical tensions, and any such scenarios may adversely impact our business. Furthermore, we may, in the future, develop or sell software solutions that are subject to such rules and restrictions. In addition, such export control rules may change or be expanded or interpreted to include the sale of our current software solutions. In addition, geopolitical disruptions among the United States and China could cause general market disruptions and subject our sales efforts in China to licensing restrictions in the future. The prospect of future export controls that are implemented in a similar manner may continue to have an ongoing impact on our business, results of operations or financial conditions. To the extent

we are unable to license our software solutions or support to customers in China, our business, including our revenues and our prospects, would be adversely affected.

Downturns or volatility in general economic conditions could harm our business.

Our revenue, gross margin, and ability to achieve and maintain profitability depend significantly on general economic conditions and the demand for software solutions in the markets in which our customers compete. Weaknesses in the global economy and financial markets and any adverse changes in general domestic and global economic conditions that may occur in the future, including any recession, economic slowdown or disruption of credit markets, may lead to, lower demand for products that incorporate our solutions.

As we have grown, we have become increasingly subject to the risks arising from adverse changes in domestic and global economic conditions. As a result of the current economic slowdown, many companies are delaying or reducing technology purchases, which has had an impact on our visibility into the closing of new business, as opposed to our recurring business. This slowdown has also contributed to, and may continue to contribute to, reductions in sales, longer sales cycles, and increased price pressures, which could adversely affect our business, financial condition, and results of operations.

Additionally, countries in certain international regions in which we operate have continued to experience weaknesses in their currency, banking, and equity markets. These weaknesses could adversely affect customer demand for our software solutions and could have an adverse effect on our financial condition, results of operations and cash flow.

Our customers may fail to pay us in accordance with the terms of their agreements.

If our customers fail to pay us in accordance with the terms of our agreements, we may be adversely affected both from the inability to collect amounts due and the cost of enforcing the terms of our agreements, including litigation and arbitration costs. The risk of these issues increases with the term length of our customer arrangements. Furthermore, some of our customers may seek bankruptcy protection or other similar relief and fail to pay amounts due to us, which we have experienced in the past, or may pay those amounts more slowly, either of which could adversely affect our results of operations, financial condition and cash flow.

Our operations could be disrupted by geopolitical conditions, trade disputes, international boycotts and sanctions, political and social instability, acts of war, terrorist activity or other similar events, which could adversely affect our business, financial condition, and results of operations.

Since we operate on a global basis, our operations could also be disrupted by geopolitical conditions, trade disputes, international boycotts and sanctions, political and social instability, acts of war, terrorist activity or other similar events.

For example, in October 2023, following a series of attacks by Hamas on Israeli civilian and military targets, Israel declared war on Hamas in Gaza. While we do not currently consider the conflict between Israel and Hamas to have had a material impact on our business, the ongoing Israel-Hamas conflict could have a negative impact on the economy and business activity globally, and therefore could adversely affect our results of operations, financial condition and cash flow.

In addition, in February 2022, Russia initiated significant military action against Ukraine. In response, the United States and certain other countries imposed significant sanctions and export controls against Russia, Belarus and certain individuals and entities connected to Russian or Belarusian political, business and financial organizations, and the United States and certain other countries could impose further sanctions, trade restrictions, and other retaliatory actions should the conflict continue or worsen.

Our board of directors is responsible for overseeing the risks to our business, including risks related to the ongoing conflict between Israel and Hamas and between Russia and Ukraine. Such risks include an increased risk of cybersecurity attacks, sanctions, risks related to our employees, service-providers and operations in the affected regions and supply chain disruptions that may affect our customers globally. During 2023, we generated $0.6 million in revenues from the Middle East, including Israel, and had one employee located in the Middle East. While none of our revenue is derived from Russia or Ukraine, we have employees based in both countries and had, prior to the beginning of the conflict, offices in both countries. In response to the ongoing conflict, we recently closed our office in Moscow, Russia, and our office in Kyiv, Ukraine, has been temporarily closed. Our board of directors has received periodic reports from management regarding the impact of the conflict on us and considered whether such events have had, or are reasonably likely to have, a material impact on us. As a result of economic uncertainties and disruption created by the Russian invasion, we recorded in 2022, an impairment charge of $0.6 million associated with intangible assets assumed in connection with our acquisition of PolytEDA, which is based in Ukraine. Unless and until the conflict in Ukraine is stabilized, we do not intend to reopen office locations in either country.

As of December 31, 2023, we had 2 employees and 2 contractors in Russia and 7 employees and 6 contractors in Ukraine, all of which were working remotely. If our employees in Russia or Ukraine become subject to a military draft or are unable to work due to the ongoing conflict, the development of our next generation software could be delayed, which could negatively impact our business.

We have taken security measures designed to help protect against cyber-attacks, security breaches and impermissible downloads in Russia and Ukraine. To the extent that our security measures do not timely detect or prevent such cyber-attacks, security breaches or impermissible downloads, we may be subject to a number of risks, including those risks discussed below in "—Risks Related to Intellectual Property, Information Technology and Data Privacy and Security—If our information technology systems, information, or other resources or those of third parties upon which we rely are or were compromised, we could experience adverse consequences resulting from such compromise, including but not limited to damage to our reputation and our business, exposure to liability, and material and adverse effects to our results of operations, potentially irreparably."

It is not possible to predict the broader consequences of either Hamas' invasion of Israel or Russia's invasion of Ukraine, including related geopolitical tensions, and the measures and retaliatory actions taken by the United States, and other countries in respect thereof as well as any counter measures or retaliatory actions by Russia or Belarus in response, including, for example, potential cyberattacks or the disruption of energy exports, which are likely to cause regional instability, geopolitical shifts, and could materially adversely affect global trade, currency exchange rates, regional economies and the global economy. The situations remain uncertain, and while it is difficult to predict the impact of any of the foregoing, the conflict and actions taken in response to either conflict could, but are not presently expected to, materially increase our costs, disrupt our supply chain, reduce our sales and earnings, impair our ability to raise additional capital when needed on acceptable terms, if at all, or otherwise further adversely affect our business, financial condition, and results of operations.

A substantial portion of our revenue comes from our international sales channels, and we have significant operations in numerous international geographies. As such, any adverse fluctuations in exchange rates could adversely affect our performance.

For the years ended December 31, 2022 and 2023, 68%, and 70%, respectively, of our revenue was from international customers. We expect to continue to generate a significant amount of revenue through international sales in the future. Our international sales team sells our software solutions to new and existing customers, expands installations within the existing customer base, offers consulting services and provides the first line of technical support. The revenues and expenses associated with our international direct sales channels are subject to foreign currency exchange fluctuations, including the potential of a stronger American dollar which has the potential of impacting our ability to compete internationally, and, as a result, our future financial results may be impacted by fluctuations in exchange rates, including Korean Won, Chinese Yuan, and Japanese Yen. For example, our reported revenues for the years ended December 31, 2022 and 2023 were higher than they would have been if the exchange rate in effect on December 31, 2020 remained constant throughout 2022 and 2023. As exchange rates fluctuate in the future, this could adversely affect our reported revenues.

We currently do not hedge any of our foreign currency exposure. However, our financial strategies may include hedging practices aimed at mitigating risks associated with foreign exchange fluctuations. However, if our hedging strategies are not executed accurately or if market conditions evolve unpredictably, it could result in significant financial misjudgments. This misalignment in our hedging approach could adversely impact our financial performance.

Our ability to increase our customer base and achieve broader market acceptance of our software solutions will depend to a significant extent on our ability to expand our international sales force. We plan to continue expanding our sales force, both domestically and internationally. We also plan to dedicate significant resources to our sales and marketing programs. All of these efforts will require us to invest significant financial and other resources. Our business will be harmed if our sales and marketing efforts do not generate significant increases in revenue or if the increases in revenue are smaller than anticipated. We may not achieve anticipated revenue growth from expanding our sales force if we are unable to hire, develop, integrate and retain talented and effective sales personnel, if our new and existing sales personnel, on the whole, are unable to achieve desired productivity levels in a reasonable period of time, or if our sales and marketing programs are not effective, the occurrence of which could adversely affect our business, financial condition, and results of operations.

Our ability to raise additional capital in the future may be limited and could prevent us from executing our growth strategy.

Our ability to operate and expand our business depends on the availability of adequate capital, which in turn depends on cash flow generated by our business and the availability of borrowings under our outstanding loans, line of credit and future debt, equity or other applicable financing arrangements. We believe that our cash flow from operations,

existing cash, availability under our existing credit line and bank loans, and the anticipated net proceeds of this offering will satisfy our anticipated cash requirements for at least the next 12 months. However, we have based this estimate on our current operating plans and expectations, which are subject to change, and cannot assure you that that our existing resources will be sufficient to meet our future liquidity needs. We may require additional capital to respond to business opportunities, challenges, acquisitions or other strategic transactions and/or unforeseen circumstances. The timing and amount of our working capital and capital expenditure requirements may vary significantly depending on numerous factors, including:

- market acceptance of our SIP and other solutions, and our IP deployment solutions;
- the need to adapt to changing technologies and technical requirements;
- the existence of opportunities for expansion; and
- access to and availability of sufficient management, technical, marketing and financial personnel.

If our capital resources are insufficient to satisfy our liquidity requirements, we may seek to sell additional equity securities or debt securities or obtain additional debt financing. The sale of additional equity securities or convertible debt securities would result in additional dilution to our stockholders. Additional debt would result in increased expenses and could result in covenants that would restrict our operations and our ability to incur additional debt or engage in other capital-raising or other activities. There can be no assurance that additional financing, if required, will be available in amounts or on terms acceptable to us, if at all. If we are unable to obtain adequate financing or financing on terms satisfactory to us, when we require it, our ability to continue to grow and support our business and respond to business opportunities and challenges could be significantly limited.

Adverse developments affecting the financial services industry could adversely affect our liquidity, financial condition and results of operations, either directly or through adverse impacts on certain of our vendors and customers.

Actual events involving limited liquidity, defaults, non-performance or other adverse developments that affect financial institutions, transactional counterparties or other companies in the financial services industry or the financial services industry generally, or concerns or rumors about any events of these kinds or other similar risks, have in the past and may in the future lead to market-wide liquidity problems. For example, on March 10, 2023, Silicon Valley Bank, or SVB, was closed by the California Department of Financial Protection and Innovation, which appointed the Federal Deposit Insurance Corporation, or FDIC, as receiver. Similarly, on March 12, 2023, Signature Bank and Silvergate Capital Corp. were each swept into receivership. Although a statement by the Department of the Treasury, the Federal Reserve and the FDIC indicated that all depositors of SVB would have access to all of their money after only one business day of closure, including funds held in uninsured deposit accounts, borrowers under credit agreements, letters of credit and certain other financial instruments with SVB, Signature Bank or any other financial institution that is placed into receivership by the FDIC may be unable to access undrawn amounts thereunder. Although we are not a borrower or party to any such instruments with SVB, Signature Bank or any other financial institution currently in receivership, if any of the banks which hold our cash deposits were to be placed into receivership, we may be unable to access such funds. As of December 31, 2023, $1.0 million, or 23%, of our cash on deposit was maintained with one financial institution in the United States, and our current deposits are in excess of federally insured limits. In addition, if any of our customers, suppliers or other parties with whom we conduct business are unable to access funds pursuant to such instruments or lending arrangements with such a financial institution, such parties' ability to pay their obligations to us or to enter into new commercial arrangements requiring additional payments to us could be adversely affected.

Software bugs or defects could expose us to liability and harm our reputation and we could lose market share.

Software products frequently contain bugs or defects, especially when first introduced, when new versions are released, or when integrated with technologies developed by acquired companies, and the likelihood of bugs or defects may increase for our business if we accelerate the frequency of its product releases. Customers have in the past identified bugs or defects in our products, and there can be no assurance that bugs or defects will not be found in the future in new or enhanced products after commencement of commercial shipments. Product bugs or defects, including those resulting from third-party licensors, have in the past and may in the future affect the performance or interoperability of our products, could delay the development or release of new products or new versions of products and could adversely affect market acceptance or perception of our products. We are currently in receipt of a request from a customer for compensation as a result of alleged product bugs or defects, and there can be no assurance that we will resolve this matter, or any similar future complaint, in a manner that preserves the customer relationship and does not otherwise adversely affect our business or operating results. In addition, any allegations of manufacturability issues resulting from use of our IP products could, even if untrue, adversely affect our reputation and our customers' willingness to license IP products from us. Any such bugs or defects or delays in releasing new products or new

versions of products or allegations of unsatisfactory performance could cause us to lose customers, increase our service costs, result in diversion of resources, damage to our reputation and subject us to liability for damages, any one of which could materially and adversely affect our business and operating results.

Our employees, consultants and third-party providers have in the past and may in the future engage in misconduct that materially adversely affects us.

Our employees, consultants and third-party providers have in the past and may in the future engage in misconduct that materially and adversely affects us. For example, a former employee in China impermissibly used our computers and software to write and configure software for other companies. Misconduct by these parties could include intentional failures to comply with the applicable laws and regulations in the United States and abroad, report financial information or data accurately, violate our internal security policies or duties of confidentiality or disclose unauthorized activities to us. Such misconduct could result in loss of proprietary information or trade secrets, legal or regulatory sanctions, loss of important business information and cause serious harm to our reputation. It is not always possible to identify and deter misconduct, and any precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses, or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could result in the imposition of significant civil, criminal and administrative penalties, which could have a significant impact on our business. Whether or not we are successful in defending against such actions or investigations, if any of our employees, consultants or third-party providers were to engage in or be accused of misconduct, we could be exposed to legal liability, incur substantial costs, loss of proprietary information, our business and reputation could be materially adversely affected, and we could fail to retain key employees.

We use certain third-party services to manage and operate our business, and any failure or interruption in the services provided by these third parties could adversely affect our business, financial condition and results of operations.

We use a number of third-party services to manage and operate our business, including software to assist our sales and marketing teams and our finance and accounting teams. These services are critical to our ability to increase our sales to customers, operate, and maintain our platform, and accurately maintain books and records. Any disruption in these services could impair our ability to execute on our operating plan and disrupt our business. Further, if these services cease to be available to us on commercially reasonable terms, or at all, we may be required to use additional or alternative services, or to develop additional capabilities within our business, any of which could require significant resources and adversely affect our business, financial condition and results of operations.

Periodic reorganizations and adjustments to our sales force could temporarily impact productivity and adversely disrupt our sales.

We rely heavily on our direct sales force. From time to time, we reorganize and make adjustments to our sales force in response to such factors as management changes, performance issues, market opportunities and other considerations. These changes may result in a temporary lack of sales production and may adversely impact revenue in future quarters. There can be no assurance that we will not restructure our sales force in future periods or that the transition issues associated with such a restructuring will not recur.

Variations in actual sales activity from sales forecasts could adversely affect our business, financial condition and results of operations.

We make many operational and strategic decisions based upon short-term and long-term sales forecasts. Our sales personnel continually monitor the status of all proposals, including the estimated closing date and the value of the sale, in order to forecast quarterly and annual sales. These forecasts are subject to significant estimation and are impacted by many external factors. For example, a slowdown in research and development spending or economic factors could cause purchasing decisions to be delayed. A variation in actual sales activity from that forecasted could cause us to plan or to budget incorrectly and, therefore, could adversely affect our business, financial condition and results of operations.

We may not realize the anticipated benefits of our acquisitions or investments, our business could be disrupted because of acquisitions or investments and, depending on how we finance such acquisitions or investments, we could use significant amounts of cash.

Our success depends in part on our ability to continually enhance and broaden our software solutions offerings in order to support our long-term strategic direction, strengthen our competitive position, expand our customer base, provide greater scale to increase our investments in research and development to accelerate innovation, provide

increased capabilities to our existing software solutions, supply new software solutions and services, and enhance our distribution channels. Accordingly, our success depends in part on our ability to identify, complete and integrate acquisitions. Over the past several years, we have completed ten such acquisitions of companies or strategic assets, and in the future, from time to time we will likely seek to acquire or invest in businesses, products, or technologies. Any acquisition, investment or business relationship may result in unforeseen operating difficulties and expenditures, as we have experienced historically. In particular, we may encounter difficulties assimilating or integrating the businesses, technologies, products, personnel or operations of the acquired companies, particularly if the key personnel of the acquired company choose not to work for us, their software is not easily adapted to work with our software solutions or we have difficulty retaining the customers of any acquired business due to changes in ownership, management or otherwise. For example, we have in the past and may in the future face challenges associated with the integration and migration of processes, including issue tracking, release procedures and standardization of license models, which can delay introduction of software solutions. We may be unable to successfully integrate previously acquired businesses and technologies or those acquired in the future, which could adversely impact our business, financial condition and results of operations.

Acquisitions and investments involve numerous risks, including:

- the inability to complete the acquisition or investment on commercially acceptable terms;
- the inability to obtain timely approvals from governmental authorities under competition and antitrust laws and the resulting delay in consummating the acquisition;
- the risk that we may have difficulty incorporating the acquired technologies or products with our existing software solutions and maintaining uniform standards, controls, procedures, and policies;
- the risk that we may not realize the anticipated increase in our revenue if a larger than predicted number of customers decline to renew annual leases or software license updates and license support or, if we are unable to sell or license the acquired solutions to our customer base;
- unforeseen difficulties in legal entity merger integration activities that may result in legal and tax exposures or the loss of anticipated tax benefits;
- disruption of our ongoing businesses and diversion of management attention;
- the risk that our relationships with current and new employees, customers, partners and distributors could be impaired;
- difficulties in integrating the acquired entities, products or technologies and overcoming any unforeseen technical problems with the acquired products or technologies;
- difficulties in operating the acquired business profitably;
- difficulties in preserving and transitioning important licensing, research and development, and customer, distributor and supplier relationships;
- difficulties in implementing the appropriate controls and procedures to ensure the acquired entity is in compliance with the Sarbanes-Oxley Act;
- the risk that the acquisition may result in increased litigation or contingencies, including as described in –“Pending or future investigations or litigation could have a material adverse effect on our results of operations and our stock price” below;
- risks associated with entering lines of business or geographies in which we have no or limited prior experience; and
- unanticipated costs, expenses or liabilities.

In addition, any future acquisitions or investments may result in:

- issuances of dilutive equity securities, which may be at a discount to market price;
- use of significant amounts of cash;
- the incurrence of debt;
- the assumption of significant liabilities;
- unfavorable financing terms;
- large one-time expenses; and
- the creation of certain intangible assets, including goodwill, the write-down of which may result in significant charges to earnings.

Any of these factors could have a material adverse effect on our business, financial condition and results of operations.

If we lose the services of our senior executives or key technical personnel who possess specialized industry knowledge and technical skills, or are unable to hire additional key personnel, it could reduce our ability to compete, to manage our operations effectively, or to develop new software solutions and services.

We are highly dependent upon the ability and experience of our senior executives and our key technical and other management employees, and we do not maintain key person insurance for any of our employees. Although we have employment agreements with certain employees, the loss of these employees, or any of our other key employees, could adversely affect our ability to conduct our operations.

Further, to be successful, we must also attract and retain key employees who join us organically and through acquisitions. There are a limited number of qualified engineers with specialized applicable skills, and competition for these individuals and other qualified employees is intense and has increased globally, including in major markets such as Asia. Our employees are often recruited aggressively by our competitors and our customers worldwide. Any failure to recruit and retain key employees could harm our business, results of operations and financial condition. Additionally, efforts to recruit and retain qualified employees could be costly and negatively impact our operating expenses.

Historically we have issued equity awards as a key component of our overall compensation. If we are unable to grant attractive equity-based packages in the future, it could limit our ability to attract and retain key employees.

We may not be able to effectively manage our growth, and we may need to incur significant expenditures to address the additional operational and control requirements of our growth, either of which could harm our business and operating results.

In order to succeed in executing our business plan, we will need to manage our growth effectively as we make significant investments in research and development and sales and marketing and expand our operations and infrastructure both domestically and internationally. In addition, in connection with operating as a public company, we will incur additional significant legal, accounting and other expenses that we did not incur as a private company. If our revenue does not increase to offset these increases in our expenses, we may not achieve or maintain profitability in future periods.

To continue to grow and to meet our ongoing obligations as a public company, we must continue to expand our operational, engineering, accounting and financial systems, procedures, controls, personnel and other internal management systems. We must also expand our reporting and compliance infrastructure to ensure that relevant information is shared with and among management and our board of directors, including with respect to actual or alleged wrongdoing within our Company. We have in the past experienced inadequate reporting and communication regarding wrongdoing, which resulted in delays and inefficiencies in taking appropriate action. Such expansions may require substantial managerial and financial resources, and our efforts in this regard may not be successful. Our current systems, procedures and controls may not be adequate to support our future operations and we may be unable to meet reporting obligation deadlines under the Exchange Act or may face additional failures with respect to our reporting and compliance infrastructure. Unless our growth results in an increase in our revenue that is proportionate to the increase in our costs associated with this growth, our operating margins will be adversely affected. If we fail to adequately manage our growth, improve our operational, financial and management information systems, improve our reporting and compliance infrastructure or effectively motivate and manage our new and future employees, it could harm our business.

The global COVID-19 pandemic affected our business and operations.

The COVID-19 pandemic and efforts to control its spread significantly curtailed the movement of people, goods, and services worldwide. In light of the uncertain situation relating to the spread of COVID-19, we took precautionary measures intended to minimize the risk of the virus to our employees, our customers, and the communities in which we operate. These measures included modifications to employee travel policies, office closures when and as employees are advised to work from home, and other similar measures, some of which are still in place.

The COVID-19 pandemic has had, and may continue to have, adverse effects on economies and financial markets globally, leading to an economic downturn, which may decrease technology spending generally and could adversely affect demand for our services. It is not possible at this time to estimate the full impact that COVID-19 will have on our business, as the impact will depend on future developments, the emergence of additional strains and subsequent effects of the repercussions, which are highly uncertain and cannot be predicted.

To the extent the COVID-19 pandemic adversely affects our business, financial condition and results of operations, it may also have the effect of heightening many of the other risks described in this “Risk Factors” section, including but not limited to, those related to our ability to increase sales to existing and new customers due to shifting demand, our

performance in international markets, our ability to continue to perform on existing contracts, develop and deploy new technologies and expand our marketing capabilities and sales organization.

We received a Paycheck Protection Program loan, and our application for the PPP Loan and loan forgiveness could in the future be determined to have been impermissible or could result in damage to our reputation.

In May 2020, we received an unsecured loan in the amount of $2.3 million under the Paycheck Protection Program, or the PPP Loan. On June 29, 2021, the PPP Loan was forgiven. The Paycheck Protection Program was established under the Coronavirus Aid, Relief, and Economic Security Act, or the CARES Act, and is administered by the U.S. Small Business Administration, or the SBA. If we are later determined to have been ineligible to receive the PPP Loan or loan forgiveness, we may be subject to significant penalties, including significant civil, criminal and administrative penalties, we could be required to repay the PPP Loan in its entirety and our reputation could suffer. A review or audit by the SBA or other government entity or claims under the U.S. False Claims Act could consume significant financial and management resources and may have an adverse effect on our business, results of operations and financial condition.

Our estimates of market opportunity and forecasts of market growth may prove to be inaccurate.

Market opportunity estimates and growth forecasts whether obtained from third-party sources or developed internally, are subject to significant uncertainty and are based on assumptions and estimates that may prove to be inaccurate. The estimates and forecasts included in this prospectus relating to the size and expected growth of the target market and market demand may also prove to be inaccurate. For example, the Electronic System Design Alliance's EDA market data may be inaccurate or incomplete. Further, Grand View Research's estimations for the size of the 2022 and 2030 global EDA market and the growth thereof are based on assumptions, including as to the future growth of the integrated circuits and electronic manufacturing markets, and the continued advancement of technology in those industries that may prove to be inaccurate or incorrect. In addition, the estimated global EDA market may not materialize in the timeframe we expect, if ever, and even if the markets meet the estimates presented in this prospectus, this should not be taken as indicative of our future growth or prospects. In order to be successful, we will need to continue to develop and advance our software solutions, secure new and renewed bookings, obtain sufficient capital to finance our business and otherwise successfully scale our business and operations. We face a number of challenges in achieving these objectives, including those described elsewhere in these risk factors. There can be no assurance that we will be able to achieve our objectives or successfully grow our business, capture meaningful market share or take advantage of market opportunities.

Risks Related to Intellectual Property, Information Technology and Data Privacy and Security

If we are unable to protect our proprietary technology and inventions through patents and other intellectual property rights, our ability to compete successfully and our financial results could be adversely impacted.

We seek to protect our proprietary technology and innovations, particularly those relating to our software solutions, through patents, trade secrets and other intellectual property rights. Maintenance of our patent portfolios, particularly outside of the United States, is expensive, and the process of seeking patent protection is lengthy and costly. While we intend to maintain our current portfolio of patents and to continue to prosecute our currently pending patent applications and file future patent applications when appropriate, the value of these actions may not exceed their expense. Existing patents and those that may be issued from any pending or future applications may be subject to challenges, invalidation or circumvention, and the rights granted under our patents may not provide us with meaningful protection or any commercial advantage. In addition, the protection afforded under the patent laws of one country may not be the same as that in other countries. This means, for example, that our right to exclusively commercialize a product in those countries where we have patent rights for that product can vary on a country-by-country basis. We also may not have the same scope of patent protection in every country where we do business.

Additionally, it is difficult and costly to monitor the use of our intellectual property. It may be the case that our intellectual property is already being infringed and infringement may occur in the future without our knowledge. Litigation may be necessary to enforce our intellectual property rights. Additionally, defending our intellectual property rights might necessitate significant financial and legal resources. Any such expenditure could negatively impact our financial performance.

While it is our policy to protect and defend our rights to our intellectual property, we cannot predict whether steps taken by us to enforce and protect our intellectual property rights will be adequate to prevent infringement, misappropriation, or other violations of our intellectual property rights. Any inability to meaningfully enforce our intellectual property rights could harm our ability to compete. Moreover, in any lawsuit we bring to enforce our intellectual property rights, a court may refuse to stop the other party from using the technology at issue on grounds that our intellectual property rights do not cover the technology in question. Further, in such proceedings, the

defendant could counterclaim that our intellectual property is invalid or unenforceable and the court may agree, in which case we could lose valuable intellectual property rights. Any litigation of this nature, regardless of outcome or merit, could materially harm our business and hurt our competitive advantage.

We generally control access to and use of our confidential information and trade secrets using internal and external controls, including contractual protections with employees, contractors, and customers. We rely in part on the laws of the United States and international laws to protect our trade secrets. All employees and consultants are required to execute confidentiality agreements in connection with their employment and consulting relationships with us. We also require them to agree to disclose and assign to us all inventions conceived or made in connection with the employment or consulting relationship. However, we cannot guarantee that we have entered into such agreements with every such party and we may not have adequate remedies in case of a breach of any such agreements. Our trade secrets could be disclosed to our competitors or others may independently develop substantially equivalent technologies or otherwise gain access to our trade secrets. Trade secrets can be difficult to protect and some courts inside and outside of the United States are less willing or unwilling to protect trade secrets.

Despite our efforts to protect our intellectual property, unauthorized parties may still copy, misappropriate, or otherwise obtain and use our software, technology, or other information that we regard as our proprietary intellectual property. In addition, we intend to expand our international operations, and effective patent, copyright, trademark, and trade secret, and other intellectual property protection may not be available or may be limited in some foreign countries. We currently have no trademark registrations or pending applications to register trademarks in foreign countries. Further, intellectual property law, including statutory and case law, particularly in the United States, is constantly developing, and any changes in the law could make it harder for us to enforce our rights.

We have predominantly developed our proprietary technology and other intellectual property internally, through development by our employees and independent contractors and externally, including through our research institution partners and their students. Our development has taken place globally, including the United States, Brazil, Europe, the Middle East and India. We attempt to protect our intellectual property, technology, and confidential information by requiring our employees, consultants, contractors and developer partners who develop intellectual property on our behalf to enter into confidentiality and invention assignment agreements. However, these agreements may not have been properly entered into on every occasion with the applicable counterparty, and such agreements may not always have been effective when entered into in granting ownership of, controlling access to and distribution of our proprietary information or technology. Certain state laws may require that we provide certain notices with respect to the assignment of particular inventions in such agreements, and we may not have been able to include such specific notice requirements in every occasion that it required. Further, if we failed to enter into one of these agreements, or if the assignment language is found to be insufficient under applicable laws, it may not have effectively granted ownership of certain technology or other intellectual property to us. In such an event, there would be a risk that the applicable counterparty would not be available to (or would not be willing to) assist us in perfecting our ownership of the technology or intellectual property, or the counterparty may even assert ownership rights against us and make claims for fees, damages, or equitable relief with respect to such technology or intellectual property, which may have an adverse effect on our ability to utilize, perfect, or protect our proprietary rights over such technology and intellectual property. Each jurisdiction has different rules regarding the correct language and procedures required to effectively assign intellectual property rights, and we may not have effectively implemented such language and procedures in each jurisdiction on every occasion, which may also limit our ability to perfect and protect our technology and intellectual property rights. Further, these agreements do not prevent our competitors or partners from independently developing technologies that are substantially equivalent or superior to our products. In addition, these agreements may not effectively prevent unauthorized use or disclosure of our confidential information, intellectual property, or technology and may not provide an adequate remedy in the event of unauthorized use or disclosure of our confidential information or technology, or infringement of our intellectual property.

From time to time, particularly over the last several years, we have acquired a portion of our intellectual property from one or more third parties. While we have conducted diligence with respect to such acquisitions, because we did not participate in the development or prosecution of such acquired intellectual property, we cannot guarantee that our diligence efforts identified and/or remedied all issues related to such intellectual property, including potential ownership errors, potential errors during prosecution of such intellectual property, and potential encumbrances that could limit our ability to enforce such intellectual property rights.

Our technology is subject to the threat of piracy, unauthorized copying and other forms of intellectual property infringement.

We regard our technology as proprietary and take measures to protect our technology and other confidential information from infringement. Piracy and other forms of unauthorized copying and use of our technology may become persistent, and policing is difficult. Further, the laws of some countries in which our products are or may be

distributed either do not protect our intellectual property rights to the same extent as the laws of the United States, or are poorly enforced. Legal protection of our rights may be ineffective in such countries. In addition, although we take steps to enforce and police our rights, we have in the past and may in the future experience piracy, as factors such as the proliferation of technology designed to circumvent the protection measures used by our business partners or by us, may expand the unauthorized copying and use of our technology.

If we are unable to protect our proprietary technology and inventions through trade secrets, our competitive position and financial results could be adversely affected.

As noted above, we seek to protect our proprietary technology and innovations, particularly those relating to our software solutions, as patents, trade secrets and other forms of intellectual property. Additionally, while software and other forms of our proprietary works may be protected under patent or copyright law, in some cases we have chosen not to seek any patents or register any copyrights in these works, and instead, primarily rely on protecting our software as a trade secret. In the United States, trade secrets are protected under the federal Economic Espionage Act of 1996 and the Defend Trade Secrets Act of 2016, or the Defend Trade Secrets Act, and under state law, with many states having adopted the Uniform Trade Secrets Act, or the UTSA. In addition to these federal and state laws inside the United States, under the World Trade Organization's Trade Related-Aspects of Intellectual Property Rights Agreement, or the TRIPS Agreement, trade secrets are to be protected by World Trade Organization member states as "confidential information." Under the UTSA and other trade secret laws, protection of our proprietary information as trade secrets requires us to take steps to prevent unauthorized disclosure to third parties or misappropriation by third parties. In addition, the full benefit of the remedies available under the Defend Trade Secrets Act requires specific language and notice requirements in the relevant agreements, which may not be present in all of our agreements. While we require our officers, employees, consultants, distributors, and existing and prospective customers and collaborators to sign confidentiality agreements and take various security measures to protect unauthorized disclosure and misappropriation of our trade secrets, we cannot assure or predict that these measures will be sufficient. The semiconductor and photonics industries are generally subject to high turnover of employees, so the risk of trade secret misappropriation may be amplified. If any of our trade secrets are subject to unauthorized disclosure or are otherwise misappropriated by third parties, our competitive position may be materially and adversely affected.

We may be subject to claims that we have wrongfully hired an employee from a competitor, or that our employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties or that our employees have wrongfully used or disclosed alleged trade secrets of their former employers.

Many of our employees, consultants and advisors, or individuals that may in the future serve as our employees, consultants and advisors, are currently or were previously employed at companies including our competitors or potential competitors. Although we try to ensure that our employees, consultants, independent contractors and advisors do not use the confidential or proprietary information, trade secrets or know-how of others in their work for us, we may be subject to claims that we have inadvertently or otherwise used or disclosed confidential or proprietary information, trade secrets, or know-how of these third parties, or that our employees, consultants, independent contractors or advisors have inadvertently or otherwise used or disclosed confidential information, trade secrets, or know-how of such individual's current or former employer. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial cost and be a distraction to our management and employees. Claims that we, our employees, consultants, or advisors have misappropriated the confidential or proprietary information, trade secrets, or know-how of third parties could have a material adverse effect on our business, financial condition, results of operations and prospects.

Our success depends on the interoperability of our software solutions with our customers' intended use cases and with products and services of other companies, including our competitors.

The success of our software solutions depends on the interoperability of our software with our customers' intended use cases and often depends on the existing products and services of other companies, including our direct competitors. As a result, our customers' bookings may rapidly evolve, utilize multiple standards, include multiple versions and generations of our software. In addition, to the extent that hardware and software vendors, including our competitors, perceive that their applications or technologies compete with our software solutions or services, they may have an incentive to withhold any cooperation necessary to ensure interoperability, decline to share access or sell to us their proprietary protocols or formats, or engage in practices to actively limit the functionality, compatibility and certification of our software solutions. In addition, competitors may fail to certify or support or continue to certify or support our software solutions for their systems.

If any of the foregoing occurs, our software solutions development efforts may be delayed or foreclosed and it may be difficult and more costly for us to achieve functionality that would make our offerings attractive to our customers or

potential customers, and we may, among other consequences, lose or fail to increase our market share and experience reduced demand for our services, any of which could negatively impact our business, financial condition and results of operations.

If our information technology systems, or those of third parties upon which we rely, or our data are or were compromised, we could experience adverse consequences resulting from such compromise, including but not limited to, regulatory investigations or actions, litigation, fines and penalties, disruptions of our business operations, reputational harm, loss of revenue or profits, and other adverse consequences.

In the ordinary course of our business, we and the third parties upon which we rely, routinely receive, collect, store, process, generate, use, transfer, disclose, make accessible, protect, secure, dispose of, transmit, and share (collectively, process) personal data and other sensitive information, including proprietary technology, trade secrets and other confidential information about our business and our customers, suppliers, and business partners (collectively, sensitive data).

As a result, we and the third parties upon which we rely face a variety of evolving risks and threats that could cause security incidents. Cyber-attacks, malicious internet-based activity, online and offline fraud, and other similar activities threaten the confidentiality, integrity, and availability of our sensitive data and information technology systems, and those of the third parties upon which we rely. Such threats are prevalent and continue to rise, are increasingly difficult to detect, and come from a variety of sources, including traditional computer “hackers,” threat actors, “hacktivists,” organized criminal threat actors, personnel (such as through theft or misuse), sophisticated nation-states, and nation-state supported actors.

Some actors now engage, and are expected to continue to engage, in cyber-attacks, including without limitation, nation-state actors for geopolitical reasons and in connection with military conflicts and defense operations. During times of war and other major conflicts, we and the third parties upon which we rely may be vulnerable to a heightened risk of these attacks, including retaliatory cyber-attacks that could materially disrupt our systems, supply chain and operations and ability to provide our services.

We and the third parties upon which we rely are subject to a variety of evolving threats, including but not limited to social-engineering attacks (including through deep fakes, which may be increasingly more difficult to identify as fake, and phishing attacks), malicious code (such as viruses and worms), malware (including as a result of advanced persistent threat intrusions), denial-of-service attacks (credential stuffing), credential harvesting, personnel misconduct or error, ransomware attacks, supply chain attacks, software bugs, server malfunctions, software or hardware failures, loss of data or other information technology assets, adware, attacks enhanced or facilitated by AI, telecommunications failures, earthquakes, fires, floods, and other similar threats.

In particular, severe ransomware attacks are becoming increasingly prevalent and can lead to significant interruptions in our operations, ability to provide our services, loss of sensitive data and income, reputational harm, and diversion of funds. Extortion payments may alleviate the negative impact of a ransomware attack, but we may be unwilling or unable to make such payments due to, for example, applicable laws or regulations prohibiting such payments.

Remote work has become more common and has increased risks to our information technology systems and data, as more of our employees utilize network connections, computers, and devices outside our premises or network, including working at home, while in transit and in public locations. Additionally, future or past business transactions (such as acquisitions or integrations) could expose us to additional cybersecurity risks and vulnerabilities, as our systems could be negatively affected by vulnerabilities present in acquired or integrated entities’ systems and technologies. Furthermore, we may discover security issues that were not found during due diligence of such acquired or integrated entities, and it may be difficult to integrate companies into our information technology environment and security program.

In addition, our reliance on third-party service providers could introduce new cybersecurity risks and vulnerabilities, including supply chain attacks, and other threats to our business operations. We rely on third-party service providers and technologies to operate critical business systems to process sensitive data in a variety of contexts, including, without limitation, cloud-based infrastructure, data center facilities, encryption and authentication technology, employee email, content delivery to customers, and other functions. We also rely on third-party service providers to provide other products, services, parts, or otherwise to operate our business. Our ability to monitor these third parties’ information security practices is limited and these third parties may not have adequate information security measures in place. If our third-party service providers experience a security incident or other interruption, we could experience adverse consequences. While we may be entitled to damages if our third-party service providers fail to satisfy their data privacy or security-related obligations to us, any award may be insufficient to cover our damages, or we may be unable to recover such award. In addition, supply-chain attacks have increased in frequency and severity, and we

cannot guarantee that third parties' infrastructure in our supply chain or our third-party partners' supply chains have not been compromised.

While we have implemented security measures designed to protect against security incidents, there can be no assurance that these measures will be effective. We take steps to detect, mitigate and remediate vulnerabilities in our information systems (such as our hardware and/or software, including that of third parties upon which we rely). We may not, however, detect and remediate all such vulnerabilities on a timely basis. Further, we may experience delays in developing and deploying remedial measures designed to address any such identified vulnerabilities. Such vulnerabilities could be exploited and result in a security incident.

Any of the previously identified or similar threats could cause a security incident or other interruption that could result in unauthorized, unlawful, or accidental acquisition, modification, destruction, loss, alteration, encryption, disclosure of, or access to our sensitive data or our information technology systems, or those of the third parties upon whom we rely. A security incident or other interruption could disrupt our ability (and that of third parties upon whom we rely) to provide our services.

We may expend significant resources or modify our business activities to try to protect against security incidents. Additionally, certain data privacy and security obligations may require us to implement and maintain specific security measures or industry-standard or reasonable security measures to protect our information technology systems and sensitive data.

Additionally, applicable data privacy and security obligations may require us to notify relevant stakeholders, including affected individuals, customers, regulators and investors, of security incidents. Such disclosures are costly, and the disclosure or the failure to comply with such requirements could lead to adverse consequences.

If we (or a third party upon whom we rely) experience a security incident or are perceived to have experienced a security incident, we may experience adverse consequences, such as government enforcement actions (for example, investigations, fines, penalties, audits, and inspections); additional reporting requirements and/or oversight; restrictions on processing sensitive data (including personal data); litigation (including class claims); indemnification obligations; negative publicity; reputational harm; monetary fund diversions; diversion of management attention; interruptions in our operations (including availability of data); financial loss; and other similar harms. Security incidents and attendant consequences may prevent the use of our services or cause customers to stop using our services, deter new customers from using our services, and negatively impact our ability to grow and operate our business.

Our contracts may not contain limitations of liability, and even where they do, there can be no assurance that limitations of liability in our contracts are sufficient to protect us from liabilities, damages, or claims related to our data privacy and security obligations. Furthermore, we cannot be sure that our cyber insurance policies will be adequate or sufficient to protect us from or to mitigate liabilities arising out of our privacy and security practices, that such coverage will continue to be available on commercially reasonable terms or at all, or that such coverage will pay future claims.

In addition to experiencing a security incident, third parties may gather, collect, or infer sensitive data about us from public sources, data brokers, or other means that reveals competitively sensitive details about our organization and could be used to undermine our competitive advantage or market position. Additionally, our sensitive data or our customers' sensitive data could be leaked, disclosed, or revealed as a result of or in connection with our employees', personnel's, or vendors' use of generative AI technologies.

Our software licenses contain third-party open source software components, and failure to comply with the terms of the underlying open source software licenses could restrict our ability to deliver our software licenses or subject us to litigation or other actions.

Some of our software licenses contain software modules licensed to us under "open source" licenses, and we expect to continue to incorporate such open source software in our software licenses in the future. Use and distribution of open source software may entail greater risks than use of third-party commercial software, as open source licensors generally do not provide support, warranties, indemnification, or other contractual protections regarding infringement claims or the quality of the code. In addition, the public availability of such software may make it easier for others to compromise our products.

Some open source licenses contain requirements that we make available source code for modifications or derivative works we create based upon the type of open source software we use, or grant other licenses to our intellectual property. We seek to ensure that our proprietary software is not combined with, and does not incorporate, open source software in ways that would require the release of the source code of our proprietary software to the public. However, if we combine our proprietary software with open source software in a certain manner, we could, under

certain open source licenses, be required to release the source code of our proprietary software to the public. This would allow our competitors or new entrants to create similar offerings with lower development effort and time and ultimately could result in a loss of our competitive advantages. Alternatively, to avoid the public release of the affected portions of our source code, we could be required to expend substantial time and resources to re-engineer some or all of our software. We incorporate software that is licensed under open source licenses which could require release of proprietary code if such license was released or distributed in any manner that would trigger such a requirement to third parties. We take steps to ensure that such software is not released or distributed. Additionally, some open source projects have vulnerabilities and architectural instabilities and are provided without warranties or services to actively provide us patched versions when available, and which, if not properly addressed, could negatively affect the performance of our products.

Although we have certain processes in place to monitor and manage our use of open source software to avoid subjecting our software licenses to conditions we do not intend, the terms of many open source licenses have not been interpreted by U.S. or foreign courts, and there is a risk that these licenses could be construed in a way that could impose unanticipated conditions or restrictions on our ability to provide or distribute our products. From time to time, there have been claims challenging the ownership of open source software against companies that incorporate open source software into their products, and the licensors of such open source software provide no warranties or indemnities with respect to such claims. As a result, we and our customers could be subject to lawsuits by parties claiming ownership of what we believe to be open source software. Moreover, we cannot assure you that our processes for monitoring and managing our use of open source software in our software licenses has been, or will be, effective.

If we are held to have breached or failed to fully comply with all the terms and conditions of an open source software license, or if an author or other third party that distributes such open source software were to allege that we had not complied with the conditions of one or more of these licenses, we could be required to incur significant legal expenses defending against such allegations, could be subject to significant damages, enjoined from the licensing of our software licenses or other liability, or be required to seek costly licenses from third parties to continue providing our software on terms that, if available at all, are not economically feasible, to re-engineer our software, to discontinue or delay the provision of our software if re-engineering could not be accomplished on a timely basis, or to make generally available, in source code form, our proprietary code, any of which would adversely affect our business, financial condition and results of operations.

We may not be able to continue to obtain licenses to third-party software and intellectual property on reasonable terms or at all, which may disrupt our business and harm our financial results.

We license third-party software and other intellectual property for use in research and development and, in several instances, inclusion in our products. We also license third-party software, including the software of our competitors, to test the interoperability of our software solutions with other industry software tools and in connection with our professional services. Our rights to use and employ software and other intellectual property that has been licensed to us, including our rights to develop, manufacture, or sell products covered by claims in licensed patents that are a subject of these licenses, are and will be subject to the continuation of and compliance with the terms of those licenses. We have and may in the future be in breach of a license, which may lead to the termination of rights granted to us under such license. This could result in competitors being able to enter our target markets and compete with us. We also may not be able to further develop, manufacture, or sell the affected products. Our third-party licenses may need to be renegotiated or renewed from time to time, or we may need to obtain new licenses in the future. Some of these licenses may also be terminated by the counterparty for convenience with limited notice to us. Third parties may stop adequately supporting or maintaining their technology, they may become insolvent or cease conducting business in the ordinary course, or they or their technology may be acquired by our competitors. From time to time, our licensors may license their technology to us on condition that we do not provide such technology or licenses incorporating such technology to certain customers. If we are unable to obtain licenses to these third-party software and intellectual property on reasonable terms or at all, we may not be able to sell the affected products, our customers' use of the licenses may be interrupted, or our software solutions development processes and professional services offerings may be disrupted, which could in turn harm our financial results, our customers, and our reputation.

The inclusion of third-party intellectual property in our software solutions can also subject us and our customers to intellectual property infringement claims. Although we seek to mitigate this risk contractually, we have not always been able to, and may not in future be able to sufficiently limit our potential liability. Regardless of outcome, infringement claims may require us to use significant resources and may divert management's attention. See the risk factor "—If we are unable to protect our proprietary technology and inventions through patents and other intellectual property rights, our ability to compete successfully and our financial results could be adversely impacted."

We are subject to stringent and evolving U.S. and foreign laws, regulations, and rules, contractual obligations, industry standards, policies and other obligations related to data privacy and security. Our actual or perceived failure to comply with such obligations could lead to regulatory investigations or actions, litigation (including class claims) and mass arbitration demands, fines and penalties, disruptions of our business operations, reputational harm, loss of revenue or profits, and other adverse business consequences.

As a regular part of our business, we process sensitive data and these processing activities subject us to numerous data privacy and security obligations, such as various laws, regulations, guidance, industry standards, external and internal privacy and security policies, contractual requirements, and other obligations relating to data privacy and security.

In the United States, federal, state, and local governments, have enacted numerous data privacy and security laws, including data breach notification laws, personal data privacy laws, consumer protection laws (e.g., Section 5 of the Federal Trade Commission Act), and other similar laws (e.g., wiretapping laws).

In the past few years, numerous U.S. states, including California, Virginia, Colorado, Connecticut, and Utah, have enacted comprehensive privacy laws that impose certain obligations on covered businesses, including providing specific disclosures in privacy notices and affording residents with certain rights concerning their personal data. As applicable, such rights may include the right to access, correct, or delete certain personal data, and to opt-out of certain data processing activities, such as targeted advertising, profiling, and automated decision-making. The exercise of these rights may impact our business and ability to provide our products and services. Certain states also impose stricter requirements for processing certain personal data, including sensitive information, such as conducting data privacy impact assessments. These state laws allow for statutory fines for noncompliance. For example, the California Consumer Privacy Act of 2018, as amended by the California Privacy Rights Act of 2020 (“CPRA”) (collectively, “CCPA”) applies to personal data of consumers, business representatives, and employees who are California residents, and requires businesses to provide specific disclosures in privacy notices and honor requests of such individuals to exercise certain privacy rights. The CCPA provides for fines of up to $7,500 per intentional violation and allows private litigants affected by certain data breaches to recover significant statutory damages.

Similar laws are being considered in several other states, as well as at the federal and local levels, and we expect more states to pass similar laws in the future. These developments may further complicate compliance efforts and increase legal risk and compliance costs for us and the third parties upon whom we rely.

Outside the United States, an increasing number of laws, regulations, and industry standards may govern data privacy and security. For example, the EU General Data Protection Regulation (“GDPR”), the UK’s GDPR, and China’s Personal Information Protection Law (“PIPL”) impose strict requirements for processing personal data. For example, under the GDPR, companies may face temporary or definitive bans on data processing and other corrective actions, fines of up to 20 million Euros under the EU GDPR, 17.5 million pounds sterling under the UK GDPR or, in each case, up to 4% of annual global revenue, whichever is greater, or private litigation related to processing of personal data brought by classes of data subjects or consumer protection organizations authorized at law to represent their interests. Additionally, we also target customers in Asia and have operations in China, Korea, Japan, Taiwan and Singapore and may be subject to new and emerging data privacy regimes in Asia, including Japan’s Act on the Protection of Personal Information, and Singapore’s Personal Data Protection Act.

Our employees and personnel use generative AI technologies to perform their work, and the disclosure and use of personal data in generative AI technologies is subject to various privacy laws and other privacy obligations. Governments have passed and are likely to pass additional laws regulating generative AI. Our use of this technology could result in additional compliance costs, regulatory investigations and actions, and consumer lawsuits. If we are unable to use generative AI, it could make our business less efficient and result in competitive disadvantages.

In addition, we may be unable to transfer personal data from the EU, the UK and other jurisdictions to the United States or other countries due to data localization requirements or limitations on cross-border data flows. The EU, UK, and other jurisdictions have enacted laws requiring data to be localized or limiting the transfer of personal data to other countries. In particular, the EU and UK have significantly restricted the transfer of personal data to the United States and other countries whose privacy laws it generally believes are inadequate. Other jurisdictions may adopt similarly stringent interpretations of their data localization and cross-border data transfer laws. Although there are currently various mechanisms that may be used to transfer personal data from the EU and UK to the United States in compliance with law, such as the EU standard contractual clauses, the UK’s International Data Transfer Agreement / Addendum, and the EU-U.S. Data Privacy Framework and UK extension thereto (which allows for transfers to relevant U.S.-based organizations who self-certify compliance and participate in the Framework), these mechanisms are subject to legal challenges, and there is no assurance that we can satisfy or rely on these measures to lawfully transfer personal data to the United States. If there is no lawful manner for us to transfer personal data from the EU,

UK, or other jurisdictions to the United States, or if the requirements for a legally-compliant transfer are too onerous, we could face significant adverse consequences, including the interruption or degradation of our operations, the need to relocate part of or all of our business or data processing activities to other jurisdictions (such as the EU) at significant expense, increased exposure to regulatory actions, substantial fines and penalties, the inability to transfer data and work with partners, vendors and other third parties, and injunctions against our processing or transferring of personal data necessary to operate our business. Additionally, companies that transfer personal data out of the EEA and UK to other jurisdictions, particularly to the United States, are subject to increased scrutiny from regulators, individual litigants, and activist groups. Some European regulators have ordered certain companies to suspend or permanently cease certain transfers of personal data out of Europe for allegedly violating the GDPR's cross-border data transfer limitations.

In addition to data privacy and security laws, we are contractually subject to industry standards adopted by industry groups and may become subject to such obligations in the future. We are also bound by other contractual obligations related to data privacy and security, and our efforts to comply with such obligations may not be successful. We publish privacy policies, marketing materials, and other statements, such as compliance with certain certifications or self-regulatory principles, regarding data privacy and security. If these policies, materials or statements are found to be deficient, lacking in transparency, deceptive, unfair, or misrepresentative of our practices, we may be subject to investigation, enforcement actions by regulators or other adverse consequences.

Obligations related to data privacy and security (and consumers' data privacy expectations) are quickly changing, becoming increasingly stringent, and creating uncertainty. Additionally, these obligations may be subject to differing applications and interpretations, which may be inconsistent or conflict among jurisdictions. Preparing for and complying with these obligations requires us to devote significant resources and may necessitate changes to our services, information technologies, systems, and practices and to those of any third parties that process personal data on our behalf.

We may at times fail (or be perceived to have failed) in our efforts to comply with our data privacy and security obligations. Moreover, despite our efforts, our personnel or third parties on whom we rely may fail to comply with such obligations, which could negatively impact our business operations. If we or the third parties on which we rely fail, or are perceived to have failed, to address or comply with applicable data privacy and security obligations, we could face significant consequences, including but not limited to: government enforcement actions (e.g., investigations, fines, penalties, audits, inspections, and similar); litigation (including class-action claims) and mass arbitration demands; additional reporting requirements and/or oversight; bans on processing personal data; and orders to destroy or not use personal data. In particular, plaintiffs have become increasingly more active in bringing privacy-related claims against companies, including class claims and mass arbitration demands. Some of these claims allow for the recovery of statutory damages on a per violation basis, and, if viable, carry the potential for monumental statutory damages, depending on the volume of data and the number of violations. Any of these events could have a material adverse effect on our reputation, business, or financial condition, including but not limited to: loss of customers; inability to process personal data or to operate in certain jurisdictions; limited ability to develop or commercialize our products; expenditure of time and resources to defend any claim or inquiry; adverse publicity; or substantial changes to our business model or operations.

Risks Related to Intellectual Property Litigation

We may be subject to litigation, regardless of success or merit, that could cause us to incur substantial expenses, reduce our sales, and divert the efforts of our management and other personnel.

The semiconductor and photonics industries are characterized by vigorous protection and pursuit of intellectual property rights and positions, which has resulted in protracted and expensive litigation for many companies. We may receive, communications alleging liability for damages or challenging the validity of our intellectual property or proprietary rights. Any litigation, regardless of success or merit, could cause us to incur substantial expenses, reduce our sales, and divert the efforts of our management and other personnel. In the event we receive an adverse result in any litigation, we could be required to pay substantial damages, seek licenses from third parties, which may not be available on reasonable terms or at all, cease sale of products, expend significant resources to develop alternative technology, or discontinue the use of processes requiring the relevant technology. Furthermore, an adverse determination of any litigation or defense proceedings could put our intellectual property at risk of being invalidated or interpreted narrowly and could put our related pending patent applications at risk of not issuing. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential or sensitive information could be compromised by disclosure in the event of litigation. In addition, during the course of litigation, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock.

Our ability to compete successfully depends in part on our ability to commercialize our intellectual property solutions without infringing the patent, trade secret, trademark, copyright, or other intellectual property rights of others.

Just as we seek to protect our technology and inventions with patents, trademarks, copyrights, trade secrets and other intellectual property rights, our competitors and other third parties do the same for their technology and inventions. We have no means of knowing the content of patent applications filed by third parties until they are published and we may not be aware of any patent applications even following their publication or issue.

The semiconductor and photonics industries are rife with patent assertion entities and is characterized by frequent litigation regarding patent and other intellectual property rights. From time to time, we receive communications from third parties that allege that our software solutions or technologies infringe their patent or other intellectual property rights. We are currently subject to litigation alleging we have misappropriated trade secrets, as described in further described in the risk factor "—Risks Related to Legal, Regulatory, Accounting and Tax Matters—Pending or future investigations or litigation could have a material adverse effect on our results of operations and our stock price." As a public company with an increased profile and visibility, we may receive similar communications or lawsuits in the future. In a patent infringement claim against us, we may assert, as a defense, that we do not infringe the relevant patent claims, that the patent is invalid or both. The strength of our defenses will depend on the patents asserted, the interpretation of these patents, and our ability to invalidate the asserted patents. However, we may not be successful in advancing non-infringement and/or invalidity arguments in our defense. In the United States, issued patents enjoy a presumption of validity, and the party challenging the validity of a patent claim must present clear and convincing evidence of invalidity, which is a high burden of proof. Conversely, the patent owner need only prove infringement by a preponderance of the evidence, which is a lower burden of proof. Lawsuits or other proceedings resulting from allegations of infringement could subject us to significant liability for damages, invalidate our proprietary rights and harm our business.

In the event that any third party succeeds in asserting a valid claim against us or any of our customers, we could be forced to do one or more of the following:

- discontinue selling access to certain technologies that contain the allegedly infringing intellectual property which may result in a decline in our revenue and could result in breach of contract claim by our affected customers and damage to our reputation;
- discontinue using trademarks that allegedly infringe the trademarks of others;
- stop receiving payment from a customer that can no longer sell the end-product if it contains allegedly infringing intellectual property;
- seek to develop non-infringing technologies, which may be expensive and not be feasible;
- incur significant legal expenses;
- pay substantial monetary damages to the party whose intellectual property rights we may be found to be infringing; and/or
- we or our customers could be required to seek licenses to the infringed technology that may not be available on commercially reasonable terms, if at all.

If a third party causes us to discontinue the use of any of our technologies, we could be required to design around those technologies. If a third party causes us to discontinue using any of our trademarks, we could be required to adopt alternative brand names. If a third party establishes that they are co-authors of a copyrighted work that we use, we could be required to account for profits arising from exploiting such intellectual property. Each of these scenarios could be costly and time consuming and could have an adverse effect on our results of operations. Any significant impairments of our intellectual property rights from any litigation we face could harm our business and our ability to compete in our industry.

Any dispute regarding our intellectual property may require us to indemnify customers, the cost of which could harm our business.

In any potential dispute involving our patents or other intellectual property, our customers could also become the target of litigation. While we generally try to avoid indemnifying our customers, some of our agreements provide for indemnification, and some require us to provide technical support and information to a customer that is involved in litigation involving use of our technology. In addition, we may be exposed to indemnification obligations, risks and liabilities that were unknown at the time that we acquired assets or businesses. Any of these indemnification and support obligations could result in substantial and material expenses. In addition to the time and expense required for us to indemnify or supply such support to our customers, a customer's development, marketing and sales of licensed semiconductors, mobile communications and data security technologies could be severely disrupted or shut down as a result of litigation, which in turn could severely harm our business as a result of lower licensing or royalty payments.

Risks Related to Our Status as a Controlled Company

Upon completion of this offering, we will be a "controlled company" within the meaning of the Nasdaq listing rules and as such are exempt from certain corporate governance requirements.

As a result of Ms. Ngai-Pesic and the SMIK Grantor Retained Annuity Trust, of which Ms. Ngai-Pesic and members of her immediate family are beneficiaries, or SMIK Trust, collectively holding more than 50% of the voting power of our company, following the completion of this offering, we will be a "controlled company" within the meaning of the Nasdaq listing rules. Therefore, we are not required to comply with certain corporate governance rules that would otherwise apply to us as a listed company on Nasdaq, including the requirement that (i) we have a majority of independent directors on our board of directors; (ii) the compensation of our executive officers be determined by a majority of the independent directors or a compensation committee comprised solely of independent directors; and (iii) director nominees selected or recommended for our board be approved either by a majority of the independent directors or a nominating committee comprised solely of independent directors. Following this offering, we intend to utilize some or all of these exemptions. As a result, we may not have a majority of independent directors on our board of directors. In addition, our compensation and nominating and corporate governance committees may not consist entirely of independent directors and may not be subject to annual performance evaluations. Should the interests of Ms. Ngai-Pesic and the SMIK Trust differ from those of our other stockholders, it is possible that the other stockholders might not be afforded such protections as might exist if our board of directors, or our committees, were required to have a majority, or be composed exclusively, of directors who were independent of Ms. Ngai-Pesic and the SMIK Trust or our management.

As long as we are a controlled company, your ability to influence matters requiring stockholder approval will be limited, and the interests of our controlling shareholder may conflict with or differ from your interests as a stockholder

Following the completion of this offering, the Pesic Family (as defined below) and the SMIK Trust, will own 20,000,000 shares of our common stock, collectively representing approximately 70.1% of our total outstanding common stock, assuming the underwriters do not exercise their over-allotment option, and approximately 67.9% if the underwriters exercise their over-allotment option in full. For so long as the Pesic Family and the SMIK Trust continue to collectively hold at least 50% of our outstanding common stock, they will be able to elect the members of our board of directors and could at any time replace our entire board of directors.

In addition, our amended and restated certificate of incorporation and amended and restated bylaws to be effective upon completion of this offering will provide that, after Ms. Ngai-Pesic, Iliya Pesic, and Yelena Pesic, and each of their respective affiliates, (collectively voting together as a single entity, the "Pesic Family") cease to beneficially own, in the aggregate, at least 50% of the voting power of the outstanding shares of our common stock, all stockholder actions must be effected at a duly called meeting of stockholders and not by written consent. As a result, Ms. Ngai-Pesic and the SMIK Trust will have the ability to control all matters affecting us, including:

- through our board of directors, any determination with respect to our business plans and policies, including the appointment and removal of our officers;
- any determinations with respect to mergers and other business combinations;
- our acquisition or disposition of assets;
- our financing activities;
- the allocation of business opportunities that may be suitable for us;
- the payment of dividends on our common stock; and
- the number of shares available for future issuance and also issuance under our stock plans.

Further, for so long as the Stockholders Agreement (as defined below) remains in effect and the Pesic Family owns in the aggregate, at least 25% of the voting power of the then outstanding shares of our capital stock, our amended and restated certificate of incorporation to be effective upon completion of this offering will provide that the prior written approval or consent of the Pesic Family shall be required for us to (i) implement any amendments to our amended and restated certificate of incorporation or bylaws that would adversely affect the Pesic Family's rights thereunder, (ii) effect or consummate a change of control or approve another merger, consolidation, business combination, sale or acquisition that results in changes in the rights and privileges of holders of equity securities, and (iii) effect the liquidation or dissolution or winding up of our business operations.

Additionally, the Stockholders Agreement provides the Pesic Family and the SMIK Trust together have the ability to designate up to four nominees for our board of directors and one non-voting board observer, depending on ownership levels.

The Pesic Family and the SMIK Trust's collective voting control may discourage transactions involving a change of control of us, including transactions in which you as a holder of our common stock might otherwise receive a premium for your shares over the then current market price.

The Pesic Family and the SMIK Trust are not prohibited from selling a controlling interest in us to a third party and may do so without your approval and without providing for a purchase of your shares of common stock. Accordingly, your shares of common stock may be worth less than they would be if the Pesic Family and the SMIK Trust did not maintain voting control over us.

The interests of the Pesic Family and the SMIK Trust could conflict with or differ from your interests as a holder of our common stock. For example, the concentration of ownership held by the Pesic Family and the SMIK Trust could delay, defer or prevent a change of control of us or impede a merger, takeover or other business combination that you as a stockholder may otherwise view favorably. So long as the Pesic Family and the SMIK Trust continue to beneficially own a significant amount of our equity, even if such amount is less than 50%, they may continue to be able to strongly influence or effectively control our decisions.

Our inability to resolve any disputes that arise between us and Ms. Ngai-Pesic, or other members of the Pesic Family, with respect to our past, future and ongoing relationships may adversely affect our operating results.

In 2022, we entered into the 2022 Credit Line with Ms. Ngai-Pesic. As of December 31, 2023, we had drawn down $2.0 million from the 2022 Credit Line. We also lease several office facilities from entities controlled by Ms. Ngai-Pesic pursuant to which we recorded a rent expense $0.4 million, and $0.5 million during the years ended December 31, 2022 and 2023, respectively. Because we are controlled by the Pesic Family and the SMIK Trust, we may not have the leverage to negotiate extensions or amendments to our agreements on terms as favorable to us compared to those we would negotiate with an unaffiliated third party. See "Certain Relationships and Related Party Transactions" and "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources."

More generally, disputes may arise between Ms. Ngai-Pesic, or other members of the Pesic Family, and us in a number of areas relating to our past and ongoing relationships. We may not be able to resolve any potential conflicts, and even if we do, the resolution may be less favorable than if we were dealing with an unaffiliated party.

Risks Related to Legal, Regulatory, Accounting and Tax Matters

We are subject to anti-corruption and anti-money laundering laws with respect to our operations and non-compliance with such laws can subject us to criminal and/or civil liability and harm our business.

We are subject to anti-corruption, anti-bribery, anti-money laundering, and similar laws in the United States and other countries in which we conduct activities, including the U.S. Foreign Corrupt Practices Act of 1977, as amended, or the FCPA, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Travel Act, the USA PATRIOT Act, and the United Kingdom Bribery Act 2010. Anti-corruption and anti-bribery laws, which have been enforced aggressively and are interpreted broadly, generally prohibit companies and their employees, agents, intermediaries and other third parties from directly or indirectly promising, authorizing, making or offering improper payments or other benefits to government officials and others in the private sector. We use third parties, including intermediaries and partners, to support sales of our products. We and these third parties may have direct or indirect interactions with officials and employees of government agencies or state-owned or affiliated entities and we may be held liable for the corrupt or other illegal activities of these third-party intermediaries and partners, our employees, representatives, contractors, and other third parties, even if we do not explicitly authorize such activities. While we have policies and procedures intended to address compliance with anti-corruption, anti-bribery, anti-money laundering and similar laws, we cannot assure you that all of our employees, representatives, contractors, partners, agents, intermediaries or other third parties have not taken, or will not take, actions in violation of our policies and applicable law, for which we may be ultimately held responsible.

Noncompliance with anti-corruption, anti-bribery, and anti-money laundering laws could subject us to investigations, severe criminal or civil sanctions, settlements, prosecution, loss of export privileges, other enforcement actions, disgorgement of profits, significant fines, damages, other civil and criminal penalties or injunctions, whistleblower complaints, adverse media coverage and other consequences. Any investigations, actions or sanctions could harm our reputation, business, operating results and financial condition.

We are subject to governmental export and import controls and sanctions that could impair our ability to compete in international markets due to licensing requirements and subject us to liability if we are not in compliance with applicable laws.

Our software solutions and technology are subject to export control and import laws and regulations of applicable jurisdictions. Certain of our software solutions are subject to U.S. export controls and sanctions, including the Export Administration Regulations, U.S. Customs regulations, and the economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Control, or OFAC. These laws and regulations may limit our ability to export our software solutions and technology or may require export authorizations and conditions prior to export. Export control and sanctions laws may also prohibit us from selling or providing our software solutions and technology to embargoed countries, regions, governments, persons, and entities. In addition, various countries regulate the importation of certain products, including through import licensing and permitting requirements, which could limit or restrict our ability to sell our products. The exportation, re-exportation, and importation of our software solutions and technology must comply with these laws and regulations. If we fail to comply with these laws and regulations, we and certain of our employees could be subject to substantial civil or criminal penalties, including the possible loss of export or import privileges, as well as reputational harm.

Complying with export control and sanctions laws and regulations can be time-consuming and result in the delay or loss of sales opportunities. We have taken precautions to prevent our software solutions and technology from being provided in violation of such laws and regulations. However, our software solutions and technology have previously been, and could in the future be, provided in violation of such laws despite the precautions in place. Between August 2019 and June 2022, we filed various voluntary disclosures with BIS regarding potential violations of U.S. export control laws and regulations, specifically, the export of our licenses to certain parties designated on BIS's Entity List and Unverified List, and the export of certain software modules without a license which was required at the time of the transaction but that were declassified by BIS in October 2020 to a lesser controlled export classification, meaning that such software generally no longer requires an export license. In July and October 2022 and January 2023, we also filed voluntary disclosures with OFAC regarding potential violations of OFAC sanctions programs, specifically the download of certain Company software modules by users in U.S. embargoed countries. In October 2023, we also filed voluntary disclosures with OFAC regarding certain banking transactions made by our third party service provider in Russia on our behalf, through a bank that was sanctioned by OFAC. These voluntary disclosures remain pending before BIS and OFAC and if either organization chose to bring an enforcement action against us in relation to such potential violations, such actions could result in the imposition of significant penalties against us.

Changes in our software solutions or technology or changes in applicable export or import laws and regulations may create delays in the introduction and sale of our software solutions and technology in international markets, prevent our customers from deploying our software solutions and technology or, in some cases, prevent the export or import of our software solutions and technology to certain countries, governments or persons altogether.

Any change in export or import laws and regulations, shift in the enforcement or scope of existing laws and regulations, or change in the countries, governments, persons or technologies targeted by such laws and regulations, could also result in decreased use of our software solutions and technology, or in our decreased ability to export or sell our software solutions and technology to existing or potential customers. Any decreased use of our software solutions and technology or limitation on our ability to export or sell our software solutions and technology would likely adversely affect our business, financial condition and results of operations.

Pending or future investigations or litigation could have a material adverse effect on our results of operations and our stock price.

We are involved in various investigations, claims and legal proceedings from time to time that arise in the ordinary course of our business activities, including intellectual property, collaboration, licensing agreement, product liability, employment, class action, whistleblower and other litigation claims, and governmental and other regulatory investigations and proceedings. For example, we have previously commenced legal proceedings against certain of our customers to protect our intellectual property rights and we may do so again in the future, which could result in resentment within our customer base and adversely affect our business, financial condition and results of operations. Our proceedings currently include customary audit activities by various taxing authorities and legal proceedings. For example, in December 2020, Silvaco, Inc., one of our subsidiaries, filed suit against Ole Christian Andersen et al., or Andersen, in California Superior Court for the County of Santa Clara seeking declaratory relief related to a dispute concerning the interpretation of an earnout agreement with Andersen in connection with the acquisition of the shares of Nangate Denmark ApS, or Nangate. In January 2022, Andersen filed a third amended cross-complaint against Silvaco, Inc. and certain of its board members alleging breach of contract, fraud, and unfair business practices and is seeking $20 million in damages, along with punitive damages. Discovery in the matter is ongoing and a trial date has been set for May 2024. Silvaco, Inc. intends to contest this matter vigorously. In August 2021, Aldini AG filed suit

against Silvaco, Inc. in the United States District Court for the Northern District of California alleging various tort claims against Silvaco, Inc., Silvaco France, and certain of its board members. On August 23, 2022, Aldini AG filed a Second Amended Complaint against Silvaco, Inc., Silvaco France, and certain of its board members that included claims of trade secret theft, conspiracy, and intentional interference with a prospective economic advantage in relation to Silvaco's acquisition of certain assets of Dolphin Design SAS, or Dolphin. Aldini AG seeks $703 million and punitive damages. On March 17, 2023, the Second Amended Complaint was dismissed on all counts, subject to a right of appeal. Aldini has filed a notice of appeal.

Changes in our tax rates or exposure to additional tax liabilities or assessments could affect our profitability, and audits by tax authorities could result in additional tax payments for prior periods.

We are subject to various U.S. and non-U.S. taxes, including direct and indirect taxes, such as corporate income, withholding, customs, excise, value-added, sales and other taxes imposed on our global activities. Significant judgment is required in determining our provisions for taxes, and there are many transactions and calculations where the ultimate tax determination is uncertain.

Our tax returns are subject to audit by U.S. federal, state and local tax authorities and by non-U.S. tax authorities. If audits result in tax liabilities or assessments different from our reserves, our future results may include unfavorable adjustments to our tax liabilities, and our financial statements could be adversely affected.

Changes in tax laws could adversely affect our business, financial position and results of operations.

Any significant changes to the tax system in the United States or in other jurisdictions could adversely affect our business, financial condition and results of operations.

The U.S. Congress, government agencies in non-U.S. jurisdictions where we and our affiliates do business, and the Organization for Economic Cooperation and Development, or OECD, have recently focused on issues related to the taxation of multinational corporations. One example is in the area of "base erosion and profit shifting," where profits are claimed to be earned for tax purposes in low-tax jurisdictions, or payments are made between affiliates from a jurisdiction with high tax rates to a jurisdiction with lower tax rates. The OECD has released several components of its comprehensive plan to create an agreed set of international rules for addressing base erosion and profit shifting.

Because we operate in numerous taxing jurisdictions, the application of the relevant tax laws can be subject to diverging and sometimes conflicting interpretations by the taxing authorities of these jurisdictions. It is not uncommon for taxing authorities in different countries to have conflicting views with respect to, among other things, whether a permanent establishment exists in a particular jurisdiction, the manner in which the arm's length standard is applied for transfer pricing purposes, or the valuation of intellectual property. For example, if the taxing authority in one country where we operate were to reallocate income from another country where we operate, and the taxing authority in the second country did not agree with the reallocation asserted by the first country, we could become subject to tax on the same income in both countries, resulting in double taxation.

If taxing authorities were to allocate income to a higher tax jurisdiction, subject our income to double taxation or assess interest and penalties, it could increase our tax liability, which could adversely affect our business, financial position and results of operations.

In the United States, the Tax Cuts and Jobs Act enacted in 2017, the Coronavirus Aid, Relief, and Economic Security Act enacted in 2020, and the Inflation Reduction Act enacted in 2022 made many significant changes to U.S. tax laws. For example, the Tax Cuts and Jobs Act of 2017 eliminated the option to deduct research and experimental expenditures in the year incurred in tax years beginning after December 31, 2021, and taxpayers are instead required to capitalize and amortize such expenditures over five years for research activities conducted in the United States and fifteen years for research activities conducted outside the United States. Although there have been legislative proposals to repeal or defer the capitalization requirement, there can be no assurance that such changes will be made. Future guidance from the Internal Revenue Service and other tax authorities with respect to any tax legislation may affect us, and certain aspects of such legislation could be repealed or modified in future legislation.

Due to the potential for changes in tax laws and regulations or changes in the interpretation thereof (including regulations and interpretations pertaining to recent tax reform in the United States), the ambiguity of tax laws and regulations, the subjectivity of factual interpretations, uncertainties regarding the geographic mix of earnings in any particular period and other factors, our estimates of our effective tax rate and our income tax assets and liabilities may be incorrect and our financial statements could be adversely affected. The impact of these factors may be substantially different from period-to-period.

Risks Related to This Offering and Ownership of Our Common Stock

The price of our common stock could be volatile and you may not be able to resell your shares at or above our initial public offering price. Declines in the price of our common stock could subject us to litigation.

Our stock price may be volatile and may decline, resulting in a loss of some or all of your investment. The trading price and volume of our common stock could fluctuate significantly in response to numerous factors, many of which are beyond our control, including:

- variations in our operating results and other financial and operational metrics, including the key financial and operating metrics disclosed in this prospectus, as well as how those results and metrics compare to analyst and investor expectations;
- speculation in the market about our operating results;
- the financial guidance we may provide to the public, any changes in guidance or our failure to meet guidance;
- failure of securities analysts to initiate or maintain coverage of us, changes in financial estimates or ratings by any securities analysts who follow us, or our failure to meet these estimates or the expectations of investors;
- results of operations that otherwise fail to meet the expectations of securities analysts and investors;
- changes in earnings estimates or recommendations by securities analysts, or other changes in investor perceptions of the investment opportunity associated with our common stock relative to other investment alternatives;
- events or factors resulting from global health crises such as the COVID-19 pandemic, war, incidents of terrorism or responses to these events;
- announcements of software solutions or enhancements, strategic alliances or significant agreements or other developments by us or our competitors;
- announcements by us or our competitors of mergers or acquisitions or rumors of such transactions involving us or our competitors;
- changes in management, other key personnel or our board of directors;
- disruptions in our operations due to security breaches or other issues;
- the strength of the global economy or the economy in the jurisdictions in which we operate, and market conditions in our industry and those affecting our customers;
- trading activity by our controlling stockholders, Ms. Ngai-Pesic and the SMIK Trust, including upon the expiration of contractual lock-up agreements, and other market participants, in whom ownership of our common stock may be concentrated following this offering;
- the potential effects arising if U.S. or global inflationary and/or currency devaluation trends appear or increase;
- market conditions in the semiconductor and photonics industries
- the performance of the equity markets in general and in our industry;
- the operating performance of other similar companies;
- actual or anticipated developments in our business or our competitors' businesses or the competitive landscape generally;
- new laws or regulations or new interpretations of existing laws, or regulations applicable to our business;
- changes in regulations, including import, export and economic sanctions, laws and regulations, that may expose us to liability and increase our costs;
- litigation or other claims against us;
- the number of shares of our common stock that are available for public trading; and
- any other factors discussed in this prospectus.

Furthermore, the stock market in general has experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of particular companies. Broad market and industry factors may significantly affect the market price of our common stock, regardless of our actual operating performance. These fluctuations may be even more pronounced in the trading market for our common stock shortly following the closing of this offering. In addition, if the market for EDA, TCAD, SIP or other technology stocks or the stock market in general experiences a loss of investor confidence, the price of our common stock could decline for reasons unrelated to our business, results of operations or financial condition. The price of our common stock might also decline in reaction to events that affect other companies, even if those events do not directly affect us. Some companies that have experienced volatility in the trading price of their stock have been the subject of securities class action litigation. If we are the subject of such litigation, it could result in substantial costs and could divert our management's attention and resources, which could adversely affect our business, financial position and results of operations.

We have not operated as a public company, which will require us to incur substantial costs and will require substantial management attention, and we may not be able to manage our transition to a public company effectively or efficiently.

We have never operated as a public company and will incur significant legal, accounting and other expenses that we did not incur as a private company. We also expect to incur stock-based compensation expenses, which we have not incurred in any material amount as a private company. Our management team and other personnel will need to devote a substantial amount of time to, and we may not effectively or efficiently manage, our transition to a public company. For example, we will be subject to the reporting requirements of the Exchange Act, the applicable requirements of the Sarbanes-Oxley Act and the Dodd-Frank Wall Street Reform and Consumer Protection Act and the rules and regulations of the SEC. The rules and regulations of Nasdaq will also apply to us following this offering. To comply with the various requirements applicable to public companies, we will need to establish and maintain effective disclosure and financial controls and make changes to our corporate governance practices. If, notwithstanding our efforts to comply with these laws, regulations and standards, we fail to comply, regulatory authorities may initiate legal or administrative proceedings against us and our business may be harmed. Further, failure to comply with these rules might make it more difficult for us to obtain some types of insurance, including director and officer liability insurance, and we might be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. The impact of these events could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, on committees of our board of directors or as members of senior management. As such, we intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from revenue-generating activities.

We also expect that our management and other personnel will need to divert attention from other business matters to devote substantial time to the reporting and other requirements applicable to a public company. We may be unable to locate and hire qualified professionals with requisite technical and public company experience when and as needed. In addition, new employees will require time and training to learn our business and operating processes and procedures. If we are unable to recruit and retain additional finance personnel or if our finance and accounting team is unable for any reason to respond adequately to the increased demands that will result from being a public company, the quality and timeliness of our financial reporting may suffer, which could result in late filings or the identification of additional material weaknesses in our internal controls. Any consequences resulting from inaccuracies or delays in our public reporting could cause our stock price to decline, result in litigation and could harm our business, financial condition and results of operations.

Additionally, as a public company, we may, from time to time, be subject to proposals and other requests from stockholders urging us to take certain corporate actions, including proposals seeking to influence our corporate policies or effect a change in our management. In the event of such stockholder proposals, particularly with respect to matters which our management and board of directors, in exercising their fiduciary duties, disagree with or have determined not to pursue, our business could be harmed because responding to actions and requests of stockholders can be costly and time-consuming, disrupting our operations and diverting the attention of management and our employees. Additionally, perceived uncertainties as to our future direction may result in the loss of potential business opportunities and may make it more difficult to attract and retain qualified personnel, business partners and customers.

We are, and following the completion of this offering will be, subject to significant regulatory compliance and internal governance requirements, and the failure to comply with such regulatory and governance requirements could result in a loss of sales or the loss of investor confidence in our financial reports, which could have an adverse effect on our stock price.

Following the completion of this offering, we will be subject to the rules and regulations of the SEC, including those that require us to report on our internal controls. Compliance with these requirements has and will cause us to incur additional expenses and cause management to divert time from our day-to-day operations. While we anticipate being able to fully comply with these internal control requirements, if we are not able to comply with the Sarbanes-Oxley reporting or certification requirements relating to internal controls, we may be subject to investigations or sanctions by the SEC, Nasdaq or other regulatory authorities.

Our stock will be listed on Nasdaq and we are subject to ongoing financial and corporate governance requirements of Nasdaq. While we anticipate being able to fully comply with applicable Nasdaq requirements, if we are not able to comply, our name may be published on Nasdaq's daily Non-Compliant Companies list until Nasdaq determines that we have regained compliance or we no longer trade on Nasdaq.

There has been no prior public market for our common stock, and an active trading market for our common stock may not develop or be sustained and you may not be able to sell your shares at or above the initial public offering price, or at all.

There has been no public market for our common stock prior to this offering. The initial public offering price for our common stock will be determined through negotiations between the underwriters and us and may vary from the market price of our common stock following this offering. If you purchase our common stock in this offering, you may not be able to resell those shares at or above the initial public offering price, or at all.

An active market in our common stock may not develop upon completion of this offering or, if it does develop, it may not be sustainable or liquid enough for you to sell your shares, especially given the concentration of outstanding shares. If an active market for our common stock does not develop, it may be difficult for you to sell shares you purchase in this offering at the price you paid. An inactive trading market may also impair our ability to raise capital by selling shares of our common stock and enter into strategic partnerships or acquire other complementary products, technologies or businesses by using shares of our common stock as consideration. Furthermore, although we intend to apply to have our common stock listed on Nasdaq, even if listed, there can be no guarantee that we will continue to satisfy the continued listing standards of Nasdaq. If we fail to satisfy the continued listing standards, we could be delisted, which would negatively impact the value and liquidity of your investment.

If you purchase our common stock in this offering, you will incur immediate and substantial dilution.

The initial public offering price of our common stock will be substantially higher than the pro forma net tangible book value per share of our common stock immediately after this offering. If you purchase shares of our common stock in this offering, you will suffer immediate dilution of $14.51 per share, or $14.11 per share if the underwriters exercise their over-allotment option in full, representing the difference between our pro forma as adjusted net tangible book value per share after giving effect to the sale of common stock in this offering and the assumed public offering price of $18.00 per share, the midpoint of the price range set forth on the cover page of this prospectus. You will experience additional dilution upon the vesting of RSUs issued under our equity incentive plans, if we issue restricted stock to our employees under our equity incentive plans or if we otherwise issue additional shares of our common stock. See “Dilution.”

Future issuances of our common stock or sales of a substantial number of shares of our common stock in the public market following this offering, or the perception that such sales could occur, could cause the price of our common stock to decline.

The market price of our common stock could decline as a result of substantial sales of our common stock, particularly sales by our directors, executive officers and significant stockholders, a large number of shares of our common stock becoming available for sale, or the perception in the market that such sales could occur. We may issue additional common stock, preferred stock, convertible securities or other equity or equity linked securities following the completion of this offering. We also expect to issue common stock to our employees, directors and other service providers pursuant to our equity incentive plans. Such issuances will be dilutive to investors and could cause the price of our common stock to decline. New investors in such issuances could also receive rights senior to those of holders of our common stock.

Upon the closing of this offering, we will have approximately 28,545,663 shares of common stock outstanding, assuming no exercise of the underwriters’ option to purchase additional shares. All of the shares of common stock sold in this offering and pursuant to the Selling Stockholder Resale Prospectus will be freely transferable without restriction or additional registration under the Securities Act of 1933, as amended, or the Securities Act.

Substantially all of the remaining shares of our common stock, including all shares held by our executive officers, directors and the holders of substantially all of our equity securities, will be subject to the lock-up agreements with the underwriters of this offering described in “Underwriting.” We also intend to register all shares of common stock that we may issue under equity compensation plans. Once we register these shares, they can be freely sold in the public market upon issuance, subject to volume limitations applicable to affiliates and the lock-up agreements described in the “Underwriting” section of this prospectus. As these restrictions on resale end, the market price of our common stock could drop significantly if the holders of those shares sell them or are perceived by the market as intending to sell them.

In addition, we do not anticipate satisfying the anticipated tax withholding and remittance obligations as a result of the RSU Settlement and the Additional RSU Settlement. In such case, applicable holders of RSUs will be able to sell shares underlying their RSUs into the open market to the extent needed to satisfy the anticipated tax withholding and remittance obligations, subject to the restrictions set forth in the lock-up agreements discussed in “Underwriting.” If we make such an election, the sales of shares underlying RSUs into the open market could cause the market price of our

common stock to decline significantly. The market's expectation that such sales could occur (even if they do not) could also cause the market price of our common stock to decline significantly. Any of the aforementioned declines in our stock price could occur even if our business is otherwise doing well and, as a result, you may lose all or a part of your investment.

If securities analysts or industry analysts downgrade our common stock, publish negative research or reports, or fail to publish reports about our business, our stock price and trading volume could decline.

The market price and trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us, our business and our market. As a newly public company, we may be slow to attract research coverage and the analysts who publish information about our common stock will have had relatively little experience with us, which could affect their ability to accurately forecast our results and could make it more likely that we fail to meet their estimates. If no or few securities or industry analysts commence coverage of us, the trading price for our common stock will be negatively impacted. In the event we do obtain industry or equity research analyst coverage, we will not have any control over the analysts' content and opinions included in their reports. If one or more analysts adversely change their recommendation regarding our stock or change their recommendation about our competitors' stock, our stock price could decline. If one or more analysts cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline or become volatile.

We will have broad discretion in the use of the net proceeds to us from this offering and may not apply the proceeds in ways that increase our market value or improve our operating results.

Our management will have considerable discretion in the application of the net proceeds to us of this offering, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. The net proceeds to us may be used for corporate purposes that do not increase the value of our business, which could cause our stock price to decline. The failure by our management to apply the net proceeds from this offering effectively could impair our growth prospects and result in financial losses that could harm our business and cause the price of our common stock to decline. We intend to use a portion of the proceeds of this offering to repay (i) the 2022 Credit Line, from which we have drawn $2.0 million as of December 31, 2023, payable to Ms. Ngai-Pesic and (ii) the East West Bank Loan, from which $4.3 million was drawn as of April 26, 2024. Until the net proceeds we receive are used, they may be placed in investments that do not produce income or that lose value. Additionally, we will have broad discretion in the use of the net proceeds from this offering when determining whether to satisfy the anticipated tax withholding and remittance obligations related to RSU Settlement and the Additional RSU Settlement or whether to elect to allow RSU holders to sell into the open market shares underlying RSUs to the extent needed to satisfy tax obligations associated with RSU settlement.

We do not intend to pay dividends on our common stock, so any returns on your investment will be limited to changes in the value of our common stock.

We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any dividends for the foreseeable future. Any future determination to pay dividends will be at the discretion of our board of directors and subject to, among other things, our compliance with applicable law, and depending on, among other things, our business prospects, financial condition, results of operations, cash requirements and availability, debt repayment obligations, capital expenditure needs, the terms of any preferred equity securities we may issue in the future, covenants in the agreements governing any future indebtedness, other contractual restrictions and industry trends and any other factors or considerations our board of directors may regard as relevant. Any return to stockholders will therefore be limited to the increase, if any, in our stock price, which may never occur.

Our amended and restated charter and bylaws that will be in effect upon the closing of this offering will designate the Court of Chancery of the State of Delaware as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, and provides that federal district courts will be the sole and exclusive forum for Securities Act claims, which could limit our stockholders' ability to obtain what they believe to be a favorable judicial forum for disputes with us or our directors, officers or other employees.

Our charter and bylaws that will be in effect upon the closing of this offering provide that, unless we consent in writing to the selection of an alternative forum, to the fullest extent permitted by law, the Court of Chancery of the State of Delaware (or, if that court lacks subject matter jurisdiction, another federal or state court situated in the State of Delaware) shall be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General

Corporation Law, or the DGCL, our certificate of incorporation, or our bylaws, or any issue, in one or more series, of all or any of the remaining shares of preferred stock, and, in the resolution or resolutions providing for such issue; (iv) any action to interpret, apply, enforce, or determine the validity of our certificate of incorporation or our bylaws; or (v) any action asserting a claim against us governed by the internal affairs doctrine. If any such action is filed in a court other than a court located within the State of Delaware, or a Foreign Action, in the name of any stockholder, that stockholder shall be deemed to have consented to: (x) the personal jurisdiction of the state and federal courts located within the State of Delaware in connection with any action brought in any such court to enforce our choice of forum, or an Enforcement Action, and (y) having service of process made upon such stockholder in any such Enforcement Action by service upon such stockholder's counsel in the Foreign Action as agent for such stockholder, in each case, to the fullest extent permitted by law. Our charter and bylaws that will be in effect upon the closing of this offering further provide that, unless we consent in writing to the selection of an alternative forum, the federal district courts are the sole and exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act. The choice of forum provisions will not apply to suits brought to enforce any liability or duty created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction.

These provisions would not apply to suits brought to enforce a duty or liability created by the Exchange Act. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all such Securities Act actions. Accordingly, both state and federal courts have jurisdiction to entertain such claims. To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, our amended and restated certificate of incorporation will further provide that, unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States shall, to the fullest extent permitted by law, be the sole and exclusive forum for the resolutions of any complaint asserting a cause of action arising under the Securities Act, including all causes of action asserted against any defendant named in such complaint. For the avoidance of doubt, this provision is intended to benefit and may be enforced by us, our officers and directors, the underwriters to any offering giving rise to such complaint and any other professional entity whose profession gives authority to a statement made by that person or entity and who has prepared or certified any part of the documents underlying this offering.

We believe these provisions may benefit us by providing increased consistency in the application of Delaware law and federal securities laws by chancellors and judges, as applicable, particularly experienced in resolving corporate disputes, efficient administration of cases on a more expedited schedule relative to other forums, and protection against the burdens of multi-forum litigation. These choice of forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, other employees or stockholders, which may discourage lawsuits with respect to such claims or make such lawsuits more costly for stockholders, although our stockholders will not be deemed to have waived our compliance with federal securities laws and the rules and regulations thereunder. Furthermore, the enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be inapplicable or unenforceable. While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions, and there can be no assurance that such provisions will be enforced by a court in those other jurisdictions. If a court were to find one or more of the choice of forum provisions that will be contained in our amended and restated certificate of incorporation and amended and restated bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could seriously harm our business.

General Risk Factors and Risks Related to Being a Public Company

We have identified a material weakness in our internal control over financial reporting. If our remediation measures are ineffective, or if we experience additional material weaknesses in the future or otherwise fail to maintain an effective system of internal controls in the future, we may not be able to report our financial condition or results of operations accurately or on a timely basis, prevent fraud or file our periodic reports in a timely manner and may incur additional costs to remediate, all of which may adversely affect investor confidence in us and our reported financial information and, as a result, impact the value of our common stock.

We have been a private company and, as such, we have not been subject to the internal control and financial reporting requirements applicable to a publicly traded company. As a public company, we will be subject to Section 404 of the Sarbanes-Oxley Act, or Section 404, which requires that we maintain effective internal control over financial reporting and disclosure controls and procedures. Section 404(a) of the Sarbanes-Oxley Act requires that we include a management report on our internal controls, including an assessment of the effectiveness of our internal controls and financial reporting procedures, beginning with annual report for our fiscal year ending December 31, 2024. We will also be required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act,

or Section 404(b), following the later of the date we are deemed to be an "accelerated filer" or a "large accelerated filer," each as defined in the Exchange Act, or the date we are no longer an "emerging growth company," as defined in the JOBS Act. See "—We are an "emerging growth company" and a "smaller reporting company" and any decision on our part to comply with certain reduced reporting and disclosure requirements applicable to emerging growth companies could make our common stock less attractive to investors." In order to comply with Section 404, we must perform system and process evaluations, document our controls and perform testing of our key controls over financial reporting to allow management to report on the effectiveness of our internal control over financial reporting. Our testing will need to include the disclosure of any material weaknesses or significant deficiencies in our internal control over financial reporting identified by our management or our independent registered public accounting firm. Our testing, or the subsequent testing by our independent public accounting firm, may reveal deficiencies in our internal control over financial reporting that are deemed to be material weaknesses. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of our financial statements will not be prevented or detected on a timely basis. If we are not able to comply with the requirements of Section 404 in a timely manner, or if we or our accounting firm identify deficiencies in our internal control over financial reporting that are deemed to be material weaknesses, the market price of our stock would likely decline and we could be subject to lawsuits, sanctions or investigations by regulatory authorities, which would require additional financial and management resources.

We have in the past and continue to identify material weaknesses in our internal control over financial reporting ("ICFR"). The material weakness as of December 31, 2023, identified in connection with the preparation of our consolidated financial statements, related to a lack of formalized accounting processes over ICFR and an insufficient complement of personnel possessing the technical accounting and financial reporting knowledge and experience to support a timely and accurate close and financial statement reporting process.

Any failure to maintain internal control over financial reporting or to identify any additional material weaknesses could severely inhibit our ability to timely and accurately report our financial condition, results of operations or cash flow. If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm determines we have a material weakness or significant deficiency in our internal control over financial reporting, investors may lose confidence in the accuracy and completeness of our financial reports, the market price of our common stock could decline, and we could be subject to sanctions or investigations by Nasdaq, the SEC, or other regulatory authorities. Failure to remedy any material weakness in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also adversely affect our future access to the capital markets.

We are working to remediate the material weakness and are taking steps to strengthen our internal control over financial reporting through the enhancement and formalization of our accounting processes over ICFR and the hiring of additional finance and accounting personnel, and we may take additional actions, including hiring additional personnel, implementing system upgrades or other organizational changes. With the additional personnel, we intend to take appropriate and reasonable steps to remediate this material weakness through the formalization of accounting policies and controls and retention of appropriate expertise for complex accounting transactions. We are also reviewing and documenting our accounting and financial processes and internal controls, building out our financial management and reporting systems infrastructure, and further developing and formalizing our accounting policies and financial reporting procedures, which includes ongoing senior management reviews. While we are taking measures and plan to continue to take measures to design and implement an effective control environment, we cannot assure you that the measures we have taken to date and other remediation and internal control measures we implement in the future will be sufficient to remediate our current material weakness or prevent future material weaknesses. We may discover additional material weaknesses in our system of internal financial and accounting controls and procedures that could result in a material misstatement of our financial statements. Our internal control over financial reporting will not prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud will be detected.

If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal control over financial reporting, when required, investors may lose confidence in the accuracy and completeness of our financial reports, we may not be able to access to the capital markets, and our stock price may be materially adversely affected. Moreover, we could become subject to investigations by regulatory authorities, which could require additional financial and management resources and result in the imposition of fines or penalties.

We are an "emerging growth company" and a "smaller reporting company" and any decision on our part to comply with certain reduced reporting and disclosure requirements applicable to emerging growth companies could make our common stock less attractive to investors.

We are an "emerging growth company" as defined in the JOBS Act. We intend to take advantage of certain exemptions under the JOBS Act from various public company reporting requirements, including not being required to have our internal control over financial reporting audited by our independent registered public accounting firm pursuant to Section 404(b), reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and any golden parachute payments not previously approved. We may take advantage of these exemptions for up to five years or until we are no longer an "emerging growth company," whichever is earlier.

In addition, Section 107 of the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This provision allows an emerging growth company to delay the adoption of some accounting standards until those standards would otherwise apply to private companies. We have elected to use the extended transition period under the JOBS Act. Accordingly, our consolidated financial statements may not be comparable to the financial statements of public companies that comply with such new or revised accounting standards.

We cannot predict if investors will find our common stock less attractive if we choose to rely on any of the exemptions afforded to emerging growth companies. If some investors find our common stock less attractive because we rely on any of these exemptions, there may be a less active trading market for our common stock and the market price of our common stock may be more volatile.

We will remain an emerging growth company until the earlier of (ii) the last day of the fiscal year (a) in which the fifth anniversary of the completion of this offering occurs, (b) in which we have total annual gross revenue of at least $1.2 billion or (c) in which we become a large accelerated filer, which means that we have been public for at least 12 months, have filed at least one annual report and the market value of our common stock that is held by non-affiliates exceeds $700.0 million as of the last day of our then-most recently completed second fiscal quarter, and (ii) the date on which we have issued more than $1.0 billion in non-convertible debt during the prior three-year period.

We are also a "smaller reporting company." We may continue to be a smaller reporting company after this offering if either (i) the market value of our common stock held by non-affiliates is less than $250.0 million or (ii) our annual revenue is less than $100.0 million during the most recently completed fiscal year and the market value of our common stock held by non-affiliates is less than $700.0 million. If we are a smaller reporting company at the time we cease to be an emerging growth company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K, we are not required to comply with the auditor attestation requirements of Section 404 and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve substantial risks and uncertainties. Any statements contained in this prospectus that are not statements of historical facts may be deemed to be forward-looking statements. Statements regarding our future results of operations and financial position, business strategy and plans and objectives of management for future operations, including, among others, statements regarding the offering, liquidity, growth and profitability strategies and factors and trends affecting our business are forward-looking statements The forward-looking statements are contained principally in the sections titled "Prospectus Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations," and "Business," but are also contained elsewhere in this prospectus. In some cases, you can identify forward-looking statements by the words "may," "might," "will," "can," "could," "would," "should," "expect," "intend," "plan," "objective," "target," "anticipate," "believe," "estimate," "predict," "project," "potential," "continue" and "ongoing," or the negative of these terms or other comparable terminology intended to identify statements about the future. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance, or achievements to be materially different from the information expressed or implied by these forward-looking statements. Forward-looking statements in this prospectus include, but are not limited to, statements about:

- market conditions;
- anticipated trends, challenges and growth in our business and the markets in which we operate;
- our ability to appropriately respond to changing technologies on a timely and cost-effective basis;
- our expectations regarding our revenue, gross margin and capacity to increase bookings;
- the size and growth potential of the markets for our software solutions, and our ability to serve those markets;
- our expectations regarding competition in our existing and new markets;
- the level of demand in our customers' end markets;
- regulatory developments in the United States and foreign countries;
- changes in trade policies, including the imposition of tariffs;
- proposed new software solutions, services or developments;
- our ability to attract and retain key management personnel;
- our customer relationships and our ability to retain and expand our customer relationships;
- our ability to diversify our customer base and develop relationships in new markets;
- the strategies, prospects, plans, expectations, and objectives of management for future operations;
- public health crises, pandemics, and epidemics, such as the COVID-19 pandemic, and their effects on our business and our customers' businesses;
- the impact of the current conflict between Ukraine and Russia and the ongoing trade disputes among the United States and China on our business, financial condition or prospects, including extreme volatility in the global capital markets making debt or equity financing more difficult to obtain, more costly or more dilutive, delays and disruptions of the global supply chains and the business activities of our suppliers, distributors, customers and other business partners;
- changes in general economic or business conditions or economic or demographic trends in the United States and foreign countries including changes in interest rates and inflation;
- our ability to raise additional capital;
- our ability to accurately forecast demand for our software solutions;
- our expectations regarding the outcome of any ongoing litigation;
- our expectations regarding the period during which we qualify as an emerging growth company under the JOBS Act and as a smaller reporting company under the Exchange Act;
- our expectations regarding our ability to obtain, maintain, protect and enforce intellectual property protection for our technology;
- our status as a controlled company; and
- our use of the net proceeds from this offering.

These forward-looking statements reflect our management's beliefs and views with respect to future events and are based on estimates and assumptions as of the date of this prospectus and are subject to risks and uncertainties. You should refer to the "Risk Factors" section of this prospectus for a discussion of crucial factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this prospectus will prove to be accurate.

Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. Considering the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified timeframe, or at all. Moreover, we operate in a competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. Given these uncertainties, you should not place undue reliance on these forward-looking statements.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based on information available to us as of the date of this prospectus. While we believe that such information provides a reasonable basis for these statements, such information may be limited or incomplete. Our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all relevant information. These statements are inherently uncertain, and investors are cautioned not to unduly rely on them.

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. Such forward-looking statements relate only to events as of the date of this prospectus. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this prospectus to conform these statements to actual results or to changes in our expectations, except as required by law.

You should read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement of which this prospectus is a part completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in this prospectus by these cautionary statements.

INDUSTRY AND MARKET DATA

This prospectus includes statistical and other industry and market data that we obtained from industry publications and research, surveys, studies and other similar third-party sources, as well as our estimates based on such data. The market data and estimates used in this prospectus involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such data and estimates. We believe that the information from these third-party sources is reliable; however, we have not independently verified them, and our business and the industry in which we operate is subject to a high degree of risk and uncertainty. See "Risk Factors" for additional information regarding risks that could cause results to differ materially from those expressed in the estimates made by the third-party sources and by us.

Market and industry data are subject to change and may be limited by the availability of raw data, the voluntary nature of the data gathering process and other limitations inherent in any statistical survey of such data. In addition, projections, assumptions and estimates of the future performance of the markets in which we operate are necessarily subject to uncertainty and risk due to a variety of factors, including those described in "Risk Factors" and "Special Note Regarding Forward-Looking Statements." These and other factors could cause results to differ materially from those expressed in the estimates made by third parties and by us. Accordingly, you are cautioned not to place undue reliance on such market and industry data or any other such estimates. The content of, or accessibility through, the sources and websites identified herein, except to the extent specifically set forth in this prospectus, does not constitute a part of this prospectus and are not incorporated herein and any websites are an inactive textual reference only.

Certain information in this prospectus is based on independent or third-party sources, including:

1. Allied Market Research, Automotive Semiconductor Market by Component: Global Opportunity Analysis and Industry Forecast, 2023-2032, August 2023.
2. Allied Market Research, IoT Market by Component (Processor, Connectivity IC, Sensors, Others), by Connectivity Technology (WiFi, Bluetooth, Zigbee, Cellular, NFC, RFID, Others), by End-Use (Consumer Electronics, Retail, Logistics, Automotive, Healthcare, Manufacturing, Others): Global Opportunity Analysis and Industry Forecast, 2021-2031, August 2022.
3. Allied Market Research, Display Market, Global Opportunity Analysis and Industry Forecast, 2023-2032, August 2023.
4. Allied Market Research, High Performance Computing (HPC) Chipset Market: Global Opportunity Analysis and Industry Forecast, 2023-2032, August 2023.
5. Allied Market Research, Power Electronics Market by Device Type (Power Discrete, Power Module, Power IC), by Material (Silicon Carbide, Gallium Nitride, Sapphire, Others), by Application (Power Management, UPS, Renewable, Others), by End Use (Telecommunication, Industrial, Automotive, Consumer Electronics, Military and defense, Energy and Power, Others): Global Opportunity Analysis and Industry Forecast, 2021-2031, May 2022.
6. Display Supply Chain Consultants, Quarterly Display Supply Chain Financial Health Report, Fourth Quarter 2022 through Third Quarter 2023 Report, January 2024.
7. Electronic Design Market Data Annual Report, Electronic System Design Alliance, April 2024.
8. Electronic Design Market Data Fourth Quarter Report, Electronic System Design Alliance, April 2024.
9. Grand View Research, Electronic Design Automation Software Market Size, Share & Trends Analysis Report By End-use (Microprocessors & Controllers, Memory Management Units), By Region And Segment Forecasts, 2023-2030.
10. Grand View Research, Semiconductor Memory Market Size, Share & Trends Analysis Report By Type (SRAM, MRAM, DRAM, Flash ROM), By Application (Consumer Electronics, Automotive), By Region, And Segment Forecasts, 2020-2027.
11. Handel Jones, Chief Executive Officer of IBS, as cited in "The cost of a 3nm chip is nearly $600 million. Where is it?", iMedia.
12. Semiconductor Industry Association World Fab Forecast Report, March 2024.
13. FACT.MR, SiC & GaN Power Semiconductor Market Report (Worldwide), December 2023.
14. IDC, Worldwide Mobile Phone Semiconductor Forecast, May 2022, #US47829222.

USE OF PROCEEDS

We estimate that we will receive net proceeds of approximately $94.6 million (or approximately $109.6 million if the underwriters exercise their option to purchase additional shares of our common stock in full) from the sale of the shares of our common stock offered by us in this offering, based on an assumed initial public offering price of $18.00 per share (the midpoint of the price range set forth on the cover page of this prospectus), and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Each $1.00 increase (decrease) in the assumed initial public offering price of $18.00 per share would increase (decrease) the net proceeds to us from this offering by approximately $5.6 million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Similarly, each 1.0 million share increase (decrease) in the number of shares offered, as set forth on the cover page of this prospectus, would increase (decrease) the net proceeds that we receive from this offering by approximately $16.7 million, assuming no change in the assumed initial public offering price per share, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The principal purposes of this offering are to increase our capitalization and financial flexibility, establish a public market for our common stock, facilitate future access to the public equity markets by us, our employees and our stockholders, obtain additional capital to support our operations and increase our visibility in the marketplace.

We currently intend to use the net proceeds from this offering for general corporate purposes, including working capital, selling and marketing activities, research and product development, general and administrative matters, the repayment of outstanding debt, and capital expenditures. We also may use a portion of the net proceeds to acquire complementary businesses, products, services or technologies. However, we do not have agreements or commitments for any specific acquisitions at this time.

Additionally, we intend to use a portion of the offering proceeds to repay the 2022 Credit Line, from which we have drawn $2.0 million as of December 31, 2023, payable to Ms. Ngai-Pesic, our controlling stockholder and the chair of our board of directors, and any amount drawn under the East West Bank Loan, from which $4.3 million was drawn as of April 26, 2024. Any amounts due under the 2022 Credit Line is subordinated to the amounts due under the East West Bank Loan. The interest rate on the 2022 Credit Line is the prime rate plus 1% per annum. The 2022 Credit Line has no restrictions or covenants. We have drawn $2.0 million on the 2022 Credit Line as of December 31, 2023. The total outstanding balance of the 2022 Credit Line was due in full upon the earlier of (i) June 13, 2024 or (ii) 10 days following the date that we secure financing in an amount equal to or greater than the 2022 Credit Line. Concurrent with entering into the East West Bank Loan agreement, Ms. Ngai-Pesic agreed to (i) extend the repayment term of the 2022 Credit Line to be the later of (a) the expiration or termination date of the East West Bank Loan or (b) June 13, 2024, and (ii) subordinate the right of repayment of any outstanding amount under the 2022 Credit Line to any amount outstanding under the East West Bank Loan. See "Certain Relationships and Related Party Transactions—Related Party Loans and Lines of Credit" for more information regarding the 2022 Credit Line. The East West Bank Loan bears interest at a per annum rate equal to one half of one percent (0.5%) above the greater of (i) the prime rate or (ii) four and one half percent (4.5%) and terminates on December 14, 2025.

We may use a portion of the net proceeds we receive from this offering, if we so elect, to satisfy the anticipated tax withholding and remittance obligations pursuant to the Optional RSU Net Settlement. We may elect to utilize the Optional RSU Net Settlement in full, in part or not at all. If we elect to utilize the Optional RSU Net Settlement in full, the estimated tax withholding and remittance obligations that we would pay on behalf of applicable RSU holders would be approximately $19.5 million.

The estimated portion of the net proceeds we may elect to use to satisfy any anticipated tax withholding and remittance obligations is based on the initial public offering price. Accordingly, the amount of the proceeds we use will vary depending on the market price of our common stock on the date we elect to settle the applicable RSUs. For example, each $1.00 increase or decrease in the assumed initial public offering price per share of $18.00, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase or decrease the amount we would be required to pay to satisfy our tax withholding and remittance obligations related to the Optional RSU Net Settlement by approximately $1.1 million.

We may, at our discretion, elect not to satisfy the anticipated tax withholding and remittance obligations as a result of the RSU Settlement and the Additional RSU Settlement. Upon such election, applicable holders of RSUs will be required to sell shares underlying their RSUs into the open market to the extent needed to satisfy the anticipated tax

withholding and remittance obligations, subject to the restrictions set forth in the lock-up agreements discussed in “Underwriting.”

Pending the uses described above, we intend to invest the net proceeds from this offering in short term, interest-bearing securities such as money market accounts, certificates of deposit, commercial paper and guaranteed obligations of the U.S. government.

The amounts and timing of our actual use of the net proceeds will vary depending on numerous factors, including our ability to gain access to additional financing, the pace of our operational expansion relative to revenue growth, and the relative success and cost of our research and development programs. As a result, our management will have broad discretion in the application of the net proceeds, and investors will be relying on our judgment regarding the application of the net proceeds of this offering.

DIVIDEND POLICY

We have never declared or paid cash dividends on our common stock, and we currently intend to retain all available funds and any future earnings to support our operations and finance the growth and development of our business and we do not anticipate declaring or paying, in the foreseeable future, any cash dividends on our common stock. In addition, the East West Bank Loan contains certain negative covenants affecting our ability to pay certain dividends. Any future determination related to our dividend policy will be made at the discretion of our board of directors and will depend upon, among other factors, our results of operations, financial condition, capital requirements, contractual restrictions, business prospects and other factors our board of directors may deem relevant.

CAPITALIZATION

The following table sets forth our cash and cash equivalents, and our capitalization as of December 31, 2023:

- on an actual basis (reflecting a 1-for-2 reverse split of our common stock, which we effected on April 29, 2024);
- on a pro forma basis, giving effect to (i) the filing and effectiveness of our amended and restated certificate of incorporation immediately prior to the completion of this offering, (ii) the RSU Settlement, (iii) stock-based compensation expense of approximately $14.7 million related to RSUs subject to the RSU Settlement reflected as a $14.7 million increase to additional paid-in capital and a $14.7 million decrease to retained earnings and (iv) the entry into the Micron Note; and
- on a pro forma as adjusted basis, giving effect to (i) the pro forma adjustment discussed above, (ii) giving further effect to the sale of 6,000,000 shares of our common stock by us in this offering at an assumed initial public offering price of $18.00 per share (the midpoint of the range set forth on the cover page of this prospectus), after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, (iii) the repayment of the 2022 Credit Line following the completion of this offering, (iv) the issuance of 310,562 shares of our common stock by us pursuant to the mandatory conversion of the Micron Note at an assumed initial public offering price of $18.00 per share (the midpoint of the range set forth on the cover page of this prospectus) and (v) the recognition of a $0.6 million loss on extinguishment upon the mandatory conversion of the Micron Note. Excluded from the table below are borrowings on our East West Bank Loan, which were undrawn at December 31, 2023, but for which $4.3 million has been drawn as of April 26, 2024 and are expected to be outstanding at the time of the initial public offering. Such amounts are anticipated to be repaid from the proceeds raised from the initial public offering.

The pro forma and pro forma as adjusted information below is illustrative only, and our capitalization following the completion of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing. You should read this table together with the sections titled “Prospectus Summary—Summary Consolidated Financial Data” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements and the related notes appearing elsewhere in this prospectus.

	As of December 31, 2023		
	Actual	Pro Forma[1]	Pro Forma As Adjusted [1][2]
	(unaudited)		
	(in thousands, except for per share data)		
Cash	$ 4,421	$ 9,421	$ 101,975
Debt:			
2022 Credit Line [3]	$ 2,000	$ 2,000	$ —
Micron Note [4]	—	5,000	—
Stockholders’ equity:			
Preferred stock, $0.0001 par value per share; no shares authorized, issued and outstanding, actual; 10,000,000 shares authorized, no shares issued and outstanding pro forma and pro forma as adjusted	—	—	—
Common stock, $0.0001 par value; 25,000,000 shares authorized; 20,000,000 shares issued and outstanding, actual; 500,000,000 shares authorized, 22,545,663 shares issued and outstanding pro forma; 500,000,000 shares authorized, 28,545,663 shares issued and outstanding pro forma as adjusted	2	2	3
Additional paid-in capital	—	14,715	114,858
Retained earnings	11,392	(3,323)	(3,913)
Accumulated other comprehensive loss	(1,992)	(1,992)	(1,992)
Total stockholders’ equity	9,402	9,402	108,956
Total capitalization	$ 11,402	$ 16,402	$ 108,956

(1) The pro forma and pro forma as adjusted columns in the table above do not include the effects of the Additional RSU Settlement and the Optional RSU Net Settlement. The Additional RSU Settlement would result in (i) the issuance of an aggregate of 397,911 shares of common stock and (ii) an estimated additional stock-based compensation expense of $4.8 million, reflected as an additional increase

to additional paid-in capital and decrease to retained earnings. The Optional RSU Net Settlement, if utilized at our option in full, would result in a $19.5 million decrease in cash and decrease in additional paid-in capital.

(2) Each $1.00 increase (decrease) in the assumed initial public offering price of $18.00 per share (the midpoint of the price range set forth on the cover page of this prospectus) would increase (decrease) each of the amount of cash and cash equivalents, additional paid-in capital, total stockholders' equity and total capitalization by approximately $5.6 million, assuming the number of shares offered, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering costs payable by us. Each 1.0 million increase (decrease) in the number of shares offered as set forth on the cover page of this prospectus, would increase (decrease) each of our cash and cash equivalents, additional paid-in capital, total stockholders' equity and total capitalization by approximately $16.7 million, assuming no change in the assumed initial public offering price per share, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

(3) Reflects the repayment of the 2022 Credit Line following the completion of this offering.

(4) Reflects our entry into the Micron Note and the mandatory conversion of the Micron Note into 310,562 shares of our common stock at an assumed initial public offering price of $18.00 per share and the recognition upon conversion of a loss on extinguishment of the Micron Note of $0.6 million.

The number of shares of our common stock to be outstanding on a pro forma and a pro forma as adjusted basis in the table above is based on 22,545,663 shares of common stock (after giving effect to 2,235,101 shares to be issued in connection with the RSU Settlement and after giving effect to 310,562 shares to be issued in connection with the Micron Note conversion) outstanding as of December 31, 2023, and excludes:

- 1,337,625 shares of our common stock subject to the settlement of RSUs, outstanding as of December 31, 2023 granted under the 2014 Plan, for which the Liquidity Event Requirement, will be satisfied upon the completion of this offering, but for which the Time-Based Requirement (i) was not satisfied on or before December 31, 2023, or (ii) has not accelerated prior to December 31, 2023 (the Time-Based Requirement for 156,600 of these RSUs is anticipated to be satisfied on or before the closing of this offering (excluding any acceleration of the Time-Based Requirement) but after December 31, 2023, as a result of which 156,600 additional shares of our common stock are anticipated to be issued in connection with the Additional RSU Settlement);
- 972,469 shares of our common stock subject to the settlement of RSUs granted subsequent to December 31, 2023 under the 2014 Plan for which the Liquidity Event Requirement will be satisfied upon the completion of this offering, (the Time-Based Requirement for 241,311 of these RSUs is anticipated to be satisfied or accelerated in connection with the closing of this offering, as a result of which 241,311 additional shares of our common stock are anticipated to be issued in connection with the Additional RSU Settlement);
- 3,425,278 shares of our common stock reserved for future issuance under the 2024 Plan which will become effective as of immediately prior to the completion of this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under the 2024 Plan and any reserved shares not issued or subject to outstanding awards under the 2014 Plan after the effective date of the 2024 Plan that are subsequently forfeited or terminated, all of which shares shall become available for issuance under the 2024 Plan; and
- 312,500 shares of our common stock reserved for future issuance under the ESPP which will become effective as of immediately prior to the completion of this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under the ESPP.

DILUTION

If you invest in our common stock in this offering, your ownership interest will be immediately diluted to the extent of the difference between the initial public offering price per share of our common stock and the pro forma as adjusted net tangible book value per share of our common stock immediately after this offering.

Our historical net tangible book value as of December 31, 2023, was approximately $0.0 million , or $0.00 per share of our common stock. Our historical net tangible book value is the amount of our total tangible assets less our total liabilities. Historical net tangible book value per share is our historical net tangible book value divided by the number of shares of common stock outstanding as of December 31, 2023, after giving effect to a 1-for-2 reverse split of our common stock, which we effected on April 29, 2024.

Our pro forma net tangible book value as of December 31, 2023, was $0.0 million, or $0.00 per share of common stock. Our pro forma net tangible book value per share represents the amount of our total tangible assets less our total liabilities, divided by the number of our shares of common stock outstanding as of December 31, 2023, after giving effect to (i) the filing and effectiveness of our amended and restated certificate of incorporation immediately prior to the completion of this offering, (ii) the RSU Settlement, (iii) stock-based compensation expense of approximately $14.7 million related to RSUs subject to the RSU Settlement reflected as an $14.7 million increase to additional paid-in capital and a $14.7 million decrease to retained earnings and (iv) the entry into the Micron Note.

Our pro forma as adjusted net tangible book value as of December 31, 2023 was $99.6 million, or $3.49 per share of common stock. Pro forma as adjusted net tangible book value per share represents the amount of our total tangible assets less our total liabilities, divided by the number of shares of common stock outstanding as of December 31, 2023, after giving effect to the pro forma adjustment discussed above and after giving further effect to (i) the sale of 6,000,000 shares of our common stock by us in this offering at an assumed initial public offering price of $18.00 per share (the midpoint of the range set forth on the cover page of this prospectus), after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, (ii) the repayment of the 2022 Credit Line following the completion of this offering, (iii) the repayment of the outstanding balance on the East West Bank Loan following the completion of this offering, from which $4.3 million was drawn as of April 26, 2024, and (iv) the issuance of 310,562 shares of our common stock by us pursuant to the mandatory conversion of the Micron Note at an assumed initial offering price of 18.00 per share (the midpoint of the range set forth on the cover page of this prospectus). Our pro forma as adjusted net tangible book value as of December 31, 2023 would have been $99.6 million, or $3.49 per share. This represents an immediate increase in pro forma as adjusted net tangible book value per share of $3.49 to our existing stockholders and an immediate dilution in pro forma as adjusted net tangible book value per share of $14.51 to new investors purchasing common stock in this offering.

Our pro forma and pro forma as adjusted net tangible book values do not include the effects of the Additional RSU Settlement. The Additional RSU Settlement would result in an estimated additional stock-based compensation expense of $4.8 million, reflected as an additional increase to additional paid-in capital and a decrease to retained earnings. The Optional RSU Net Settlement, if utilized at our option in full, would result in a $19.5 million decrease in cash and decrease in additional paid-in capital.

Dilution per share to new investors is determined by subtracting pro forma as adjusted net tangible book value per share after this offering from the initial public offering price per share paid by new investors. The following table illustrates this dilution on a per share basis:

Assumed initial public offering price per share		$18.00
Historical net tangible book value per share as of December 31, 2023	$0.00	
Pro forma increase in net tangible book value per share as of December 31, 2023 before giving effect to this offering	$0.00	
Pro forma net tangible book value per share as of December 31, 2023	$0.00	
Increase in pro forma net tangible book value per share attributable to investors participating in this offering	$3.49	
Pro forma as adjusted net tangible book value per share after giving effect to this offering		$3.49
Pro forma as adjusted dilution per share to investors participating in this offering		$14.51

Each $1.00 increase (decrease) in the assumed initial public offering price of $18.00 per share (the midpoint of the price range set forth on the cover page of this prospectus) would increase (decrease) the pro forma as adjusted net tangible book value per share after this offering by approximately $0.80 per share and the dilution in pro forma per

share to investors participating in this offering by approximately $0.80 per share, assuming that the number of shares offered, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

A 1.0 million share increase in the number of shares offered, as set forth on the cover of this prospectus, would increase the pro forma as adjusted net tangible book value per share after this offering by approximately $0.45, and decrease the dilution in pro forma per share to investors participating in this offering by approximately $0.45, and a 1.0 million share decrease in the number of shares offered by us would decrease the pro forma as adjusted net tangible book value per share after this offering by approximately $0.48 and increase the dilution in pro forma per share to investors participating in this offering by approximately $0.48, in each case assuming the assumed initial public offering price of $18.00 per share (the midpoint of the price range set forth on the cover of this prospectus) remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

If the underwriters exercise their option to purchase additional shares in full, the pro forma as adjusted net tangible book value will increase to $3.89 per share, representing an immediate increase in pro forma as adjusted net tangible book value to our existing stockholders of $0.40 per share and an immediate decrease of dilution of $0.40 per share to new investors participating in this offering.

The following table summarizes, on a pro forma as adjusted basis as of December 31, 2023, the number of shares purchased or to be purchased from us, the total consideration paid or to be paid to us, and the average price per share paid to us by our existing stockholders and paid us to by investors participating in this offering at an assumed initial public offering price of $18.00 per share (the midpoint of the price range set forth on the cover page of this prospectus), before deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. As the table below shows, investors participating in this offering will pay an average price per share substantially higher than our existing stockholders paid.

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders	22,545,663	79 %	20,305,123	16 %	$0.90
Investors participating in this offering	6,000,000	21 %	108,000,000	84 %	$18.00
Total	28,545,663	100 %	$ 128,305,123	100 %	

The table above assumes no exercise of the underwriters' option to purchase up to an additional 900,000 shares in this offering. If the underwriters' option to purchase additional shares is exercised in full, the number of shares of our common stock held by the existing stockholders would be reduced to 14.1% of the total number of shares of our common stock outstanding after this offering, and the number of shares of common stock held by new investors participating in the offering would be increased to 85.9% of the total number of shares outstanding after this offering.

Except as otherwise indicated, the discussion and tables above are based on 22,545,663 shares of our common stock (after giving effect to 2,235,101 shares to be issued in connection with the RSU Settlement and after giving effect to 310,562 shares to be issued in connection with the Micron Note conversion) outstanding as of December 31, 2023, and excludes:

- 1,337,625 shares of our common stock subject to the settlement of RSUs, outstanding as of December 31, 2023 granted under the 2014 Plan, for which the Liquidity Event Requirement, will be satisfied upon the completion of this offering, but for which the Time-Based Requirement (i) was not satisfied on or before December 31, 2023, or (ii) has not accelerated prior to December 31, 2023 (the Time-Based Requirement for 156,600 of these RSUs is anticipated to be satisfied (excluding any acceleration of the Time-Based Requirement) on or before the closing of this offering but after December 31, 2023, as a result of which 156,600 additional shares of our common stock are anticipated to be issued in connection with the Additional RSU Settlement);
- 972,469 shares of our common stock subject to the settlement of RSUs granted subsequent to December 31, 2023 under the 2014 Plan for which the Liquidity Event Requirement will be satisfied upon the completion of this offering he Time-Based Requirement for 241,311 of these RSUs is anticipated to be satisfied or accelerated in connection with the closing of this offering, as a result of which 241,311 additional shares of our common stock are anticipated to be issued in connection with the Additional RSU Settlement);
- 3,425,278 shares of our common stock reserved for future issuance under the 2024 Plan which will become effective as of immediately prior to the completion of this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under the 2024 Plan and any reserved

shares not issued or subject to outstanding awards under the 2014 Plan after the effective date of the 2024 Plan that are subsequently forfeited or terminated, all of which shares shall become available for issuance under the 2024 Plan; and

- 312,500 shares of our common stock reserved for future issuance under the ESPP which will become effective as of immediately prior to the completion of this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under the ESPP.

To the extent that any outstanding RSUs vest and settle or RSUs are issued under our stock-based compensation plans, or we issue additional shares of common stock or other equity or convertible debt securities in the future, there will be further dilution to investors participating in this offering.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of financial condition and results of operations together with our audited consolidated financial statements and related notes included elsewhere in this prospectus. This discussion and other parts of this prospectus contain forward-looking statements that involve risks, uncertainties and assumptions. Our actual results could differ materially from those discussed in or implied by these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in the section titled "Risk Factors." Please also see the section titled "Special Note Regarding Forward-Looking Statements."

Overview

We are a provider of TCAD software, EDA software and SIP. TCAD, EDA and SIP solutions enable semiconductor and photonics companies to increase productivity, accelerate their products' time-to-market and reduce their development and manufacturing costs. We have decades of expertise developing the "technology behind the chip" and providing solutions that span from atoms to systems, starting with providing software for the atomic level simulation of semiconductor and photonics material for devices, to providing software and SIP for the design and analysis of circuits and system level solutions. We provide SIP for SoC and ICs, and SIP management tools to enable team collaborations on complex SoC designs. Our customers include semiconductor manufacturers, OEMs and design teams who deploy our solutions in production flows across our target markets, including display, power devices, automotive, memory, HPC, IoT and 5G/6G mobile markets.

EDA offerings, including our solutions, enable companies to streamline their IC design workflows, develop complex IC designs in a cost-efficient manner, and maintain acceptable IC manufacturing yield, by providing interoperable tools that capture and simulate designs from concept to analysis. Our TCAD device and process simulation tools provide compatible data structures that can be used with our EDA modeling, analysis, simulation, verification and yield enhancement tools. Further, our EDA tools are used for designing SIP and IC designs that can be managed and validated by our SIP management tools.

Our go-to-market strategy centers on selling software solutions and associated maintenance and services. Our software solutions accounted for 74% and 73% of our revenue for the years ended December 31, 2022 and 2023, respectively, and associated maintenance and services accounted for 26% and 27% of our revenue for the years ended December 31, 2022 and 2023, respectively. For the years ended December 31, 2022 and 2023, approximately 83% and 81% of our bookings came from existing customers and 17% and 19% came from new customers, respectively. See "—Key Operating Indicators and Non-GAAP Financial Measures—Bookings" for a description of how we define bookings.

We have experienced an increase in bookings and revenue over the past two years. Our revenue was $46.5 million, and $54.2 million for the years ended December 31, 2022 and 2023, respectively. Our bookings were $49.7 million and $58.1 million for the years ended December 31, 2022 and 2023, respectively. Partially attributable to increased operating expenses in connection with our preparation for this offering, we had a net loss of $3.9 million and $0.3 million for the years ended December 31, 2022 and 2023, respectively.

Acquisitions

Since 2015, we have acquired ten businesses, assets and/or technologies to complement our existing software solution offerings, expand into new markets or grow our existing market share, increase our engineering talent and enhance our technical capabilities. For example, in November 2020, we acquired the memory compiler assets and resources of Dolphin for $1.2 million to provide embedded memory and register files for SoC designers and foundries. In January 2021, we acquired PolytEDA Cloud LLC, or PolytEDA, for $2.0 million to expand our capabilities for rapid physical verification of IC designs prior to mask creation and manufacturing and for cloud enablement of EDA software tools.

In our mergers and acquisitions, or M&A, process, we identify a large pool of potential targets and assess them based on their technology, talent and financial situation. After this initial evaluation, we narrow the universe of potential M&A target candidates to a smaller group for a detailed due diligence review process. This helps us thoroughly understand the operations, finances, and any potential risks involved with acquiring a given candidate. Ultimately, we believe our process allows us to make well-informed decisions about which companies, if any, to pursue further in our M&A efforts. When we engage in M&A, we aim to retain the customers of our acquired companies due to our expanded offerings or improved services. As a result, acquiring target companies may allow us to access and serve a broader range of customers, which ultimately may lead to more bookings, increased revenue growth and expansion in our market share presence.

Impact of COVID-19

We are continuing to monitor the impact of COVID-19 on all aspects of our business. The COVID-19 pandemic has caused and may continue to cause travel bans or disruptions, and in some cases, prohibition of non-essential activities, disruption and shutdown of businesses and greater uncertainty in global financial markets. The impact of COVID-19 is fluid and uncertain, but it has caused and may continue to cause various negative effects, including an inability to meet with actual or potential customers, customers deciding to delay or abandon their planned purchases or failing to make payments to us, closures in our customers' offices, and delays or disruptions in our customers' supply chains.

The extent to which COVID-19 ultimately impacts our results of operations, cash flow and financial position will depend on future developments, which are uncertain and cannot be predicted, including but not limited to, the duration and spread of the pandemic, its severity, the actions taken by governments and authorities to contain the virus or treat its impact, and how quickly and to what extent normal economic and operating conditions can resume.

Geopolitical Conflicts

In October 2023, following a series of attacks by Hamas on Israeli civilian and military targets, Israel declared war on Hamas in Gaza. While we derived $0.5 million and $0.6 million of our revenue during the years ended December 31, 2022 and 2023, respectively, from countries in the Middle East, including Israel, we do not currently consider the conflict between Israel and Hamas to have had a material impact on our business.

In February 2022, Russia invaded Ukraine, and the ensuing conflict has created disruption in the region and around the world. However, we do not currently consider Russia's invasion of Ukraine to have had a material impact on our business. None of our revenue was derived from our Russian or Ukrainian subsidiary in the years ended December 31, 2022 and 2023. In addition, neither our Russian nor Ukrainian subsidiary comprises, or is expected to comprise, a material portion of our net assets which consist primarily of computers, laptops and audio/visual equipment. We do have an aggregate of 7 employees and 6 contractors in Ukraine and 2 employees and 2 contractors in Russia, as of December 31, 2023. As a result of economic uncertainties and disruption created by the initiation of war, we recorded, during the year ended December 31, 2022, an impairment charge of $0.6 million to write down the carrying value of intangible assets associated with our Ukrainian subsidiary, which management determined would not be recoverable. See also Note 6, Goodwill and Intangible Assets and Note 16, Fair Value of Financial Instruments, of our consolidated financial statements for the year ended December 31, 2023.

We continue to closely monitor the ongoing conflicts and related sanctions in the affected regions, such as potential sanctions related to employing individuals located in the affected areas, which could impact our results of operations in the future. Other impacts due to the evolving conflicts are currently unknown and could potentially subject our business to adverse consequences should the situations escalate beyond their current scopes or affect our customers outside of the regions.

Key Factors Affecting our Results of Operations and Future Performance

We believe that the growth of our business and our future success are dependent upon many factors including those described above under "Risk Factors" and elsewhere in this prospectus and those described below. While each of these factors presents significant opportunities for us, these factors also pose challenges that we must successfully address to sustain the growth of our business and enhance our results of operations.

Relationships with Our Existing Customers

Building long-term relationships with our existing customer base is critical in driving renewals for our licenses and overall revenue growth. We have a global sales force selling to semiconductor companies and engineering universities which instruct the next generation of chip designers and fabrication facility managers on the use and benefits of our design tools. Most of our customers enter into multi-year software license agreements for a fixed price including a multi-year software license and maintenance and services.

When we renew expiring contracts with our customers, we may increase our bookings by selling them additional or new software or SIP. Our total bookings increased by 17% from $49.7 million in fiscal year 2022 to $58.1 million in fiscal year 2023. Over time, we expect that existing customers will choose to upgrade and purchase additional products, particularly as we de-emphasize our lower margin products, which we expect will over the long term drive margin expansion. Our ability to continue to generate sales from our existing customers and to expand those relationships is dependent on our ability to continue to offer software solutions that our existing customers demand. Any failure to continue to generate sales with our existing customers or expand our product and service offerings with our existing customers may have an adverse effect on our revenue and results of operations.

We enter into standard software licensing agreements with each of our customers. Pursuant to these agreements, we grant our customers a non-exclusive, non-transferable limited license, without the right to sublicense, to execute, use

and operate certain software. Each party has the right to terminate the software license agreement under certain circumstances, in which event the customer will be required to remove, delete and return all software, related documentation and confidential information furnished under the license agreement.

Our Ability to Expand Our Product Offerings

To meet the increasing complexity of semiconductor designs, the introduction of new advanced materials, and the increased costs associated with more advanced semiconductor technology nodes, we will need to continually enhance our product offerings through our own in-house research and development efforts, acquisitions, or strategic partnerships with third parties. The in-house development of new product offerings or enhancements to our existing product offerings requires significant research and development activities and time and may or may not result in offerings we can successfully market and sell to customers. For example, we have developed an artificial intelligence-based solution named fab technology co-optimization or FTCO™ for wafer level fabrication facilities. FTCO utilizes manufacturing data to perform statistical and physics-based machine learning software simulations to create a computer model of a wafer, which we call the "digital twin" of the wafer, in order to simulate the fabrication of wafers. We may also seek to acquire companies or assets for products or solutions which we believe are complementary to our existing products or solutions. See "—Our Ability to Successfully Identify, Complete and Integrate Acquisitions." Additionally, we have in the past, and may in the future, partner with third parties to expand our product offerings to our customers. Since 2016, we have generated revenues from licensing to our customers a certain SIP which we have licensed from a third party vendor. The license agreement with the third party vendor relating to this SIP expired on October 30, 2023. During the twelve months ended December 31, 2022 and 2023, we generated $4.2 million, and $4.5 million, respectively, in software license revenue from licensing this SIP to our customers. In connection with this license agreement, we recognized $2.1 million and $2.0 million in royalty expense during the years ended December 31, 2022 and 2023, respectively. If in the future, we enter into additional licensing agreements with other third parties and are unable to extend the term of those licensing arrangements, we will experience an associated decline in revenue relating to those products.

Our Ability to Expand into New Markets and Applications and Expansion of our Existing Markets

According to Grand View Research, the global EDA software market was estimated to reach $11.1 billion in potential revenue in 2022 and is expected to reach $22.2 billion in potential revenue in 2030, representing a 9.1% CAGR, driven in part by the growth in the integrated circuits and electronics manufacturing markets, growing complexity of semiconductor and photonics designs and increasing challenges associated with advanced materials and shrinking process technology nodes across the EDA market. We believe these trends will increase the demand for our software solutions over time, which will have a direct impact on our future revenues and results of operations. In response to this increase in complexity and new challenges facing designers, we have increased investments in our research and development for new software product offerings. For example, our research and development expense was 27% and 24% of revenue for the years ended December 31, 2022 and 2023, respectively. We plan to continue to invest in our software solutions to establish and expand a leadership position in our target markets. We also plan to use our research and development efforts to continue to cater to strategic customer needs.

The drive to increase performance and diversification of applications is further accelerated by a broad-scale transition to cloud-based software applications and computing on mobile platforms. The development of semiconductors that are optimized for specific applications, including AI, 5G/6G communications and IoT, has continued to fuel demand for TCAD and EDA software tools, which in turn fuels demand to develop solutions to meet our markets' evolving needs. Our ability to successfully generate customer demand amongst new customers and in new markets is dependent on our ability to educate these customers and markets about our software solutions and our ability to generate sufficient new solutions that solve problems for these potential customers. Our ability to continue to expand our product offerings into new markets also requires that we direct our research and development efforts toward value-generating new and existing initiatives. Our future revenues and results of operations will be directly impacted by our ability to produce and provide new software solutions in new and expanding markets.

Our Ability to Successfully Identify, Complete and Integrate Acquisitions

Our success depends in part on our ability to identify, complete and integrate acquisitions. Our goal for future potential acquisition is to pursue acquisitions that will increase our competitiveness in our markets, and increase our bookings and revenue. Our ability to successfully identify, complete and integrate acquisitions will depend on a number of factors, including access to adequate capital, potential competition for the assets, and technology fit. When we engage in M&A, we aim to retain the customers of our acquired companies due to our expanded offerings or improved services. As a result, acquiring target companies is a key part of our growth strategy and may allow us to access and serve a broader range of customers, which ultimately may lead to more bookings, increased revenue growth and expansion in our market share presence.

Our Ability to Calibrate Our Product Mix to Enhance Margin Expansion

We anticipate that our results will be impacted by the increase or decrease of a given product or service as a percentage of total revenue relative to our other products and services. If and as higher margin products become a larger part of our product mix, or conversely as low margin products become a smaller part of our product mix, our gross margin will expand. While we may enter into agreements with third parties for lower margin product solutions, we anticipate our focus on higher margin solutions will continue to lead our other products and services within our product mix, which we anticipate may lead to gross margin and operating margin expansion. Our future ability to shape our product mix with higher margin products making up a larger percentage of our total revenue will impact our results of operations.

Our Ability to Scale While Mitigating Increases in Expenses

If we can execute on our growth strategy and grow our revenue through a combination of new customer growth, upgrades and increased usage of our products by existing customers, as well as accretive acquisitions, our results will be impacted by our ability to reduce the rate at which our expenses increase in proportion with a rise in revenue. We believe this is possible in a number of expense line items, which may provide for additional gross margin and operating margin expansion. For example, we anticipate as our existing customers choose to upgrade to newer software solutions, our costs related to the support of legacy software decreases, outpacing any increases in cost related to supporting the upgraded software. Additionally, we have incurred increased general and administrative expenses in connection with preparing to become a public company, including increased staff costs and professional services fees, including legal and accounting fees. While we anticipate the increased level of costs to remain, we do not anticipate those costs scaling proportionally with our revenue. Finally, we may be able to gain sales efficiencies as our revenue grows, such that our sales and marketing expenses will decrease as a percentage of revenue. In the aggregate, our ability to keep these expenses from growing proportionally with our revenue may provide for meaningful gross margin and operating margin expansion.

Components of Results of Operations

Revenue

Our revenue is derived from software licensing and maintenance and services. Our customer agreements include combinations of licensed software and maintenance and services, which are accounted for as separate performance obligations with differing revenue recognition patterns. The following table sets forth our quarterly revenue and the components of revenue, along with operating income (loss) for each of the last eight quarters through the period ended December 31, 2023. The unaudited quarterly data below has been prepared on the same basis as the audited consolidated financial statements included elsewhere in this prospectus and, in the opinion of management, reflect all necessary adjustments, consisting only of normal recurring adjustments, necessary for a fair statement of this information. The results of historical quarters are not necessarily indicative of the results of operations for any future period. You should read the following unaudited quarterly data in conjunction with our consolidated financial statements and related notes included elsewhere in this prospectus.

	Three Months Ended							
	Mar 31, 2022	Jun 30, 2022	Sep 30, 2022	Dec 31, 2022	Mar 31, 2023	Jun 30, 2023	Sep 30, 2023	Dec 31, 2023
	(in thousands)							
Revenue:								
Software license revenue	$ 10,803	$ 7,882	$ 9,261	$ 6,465	$ 10,665	$ 8,845	$ 11,083	$ 8,738
Maintenance and service	2,748	3,493	2,486	3,336	3,626	3,680	3,861	3,748
Total revenue	$ 13,551	$ 11,375	$ 11,747	$ 9,801	$ 14,291	$ 12,525	$ 14,944	$ 12,486
Operating income (loss)	$ 1,359	$ (644)	$ (1,137)	$ (1,451)	$ 1,533	$ (205)	$ 1,742	$ (1,936)

Software License Revenue

Revenue from our software licenses is classified as software license revenue. Software license revenue is recognized upfront upon delivery of the licensed product. We also offer licenses of our standard SIP developed in house, and we offer licenses to our SIP developed in partnership with a third party vendor. See "Business—Agreement with NXP." Our SIP licenses provide customers with access to SoC design SIP which meet established industry standards, thus saving customers the time and resources required to develop similar design methodologies. Our SIP are generally ready to use upon delivery, meaning no customization is required for our customers to obtain value from the use of our SIP in their IC designs. We recognize revenue associated with licenses of our SIP at the commencement of the contract upon delivery of the licensed SIP. With respect to our SIP developed in partnership with a third party vendor, we generally acted as a principal to the transaction because we controlled the promised SIP that we delivered to the customer. Consistent with our role as the principal, we recognized SIP revenue of our SIP developed in partnership with the third party vendor on a gross basis. Any royalty fees based upon unit sales, revenue or flat fees which were

paid to the third party vendor were reported in cost of revenue upon delivery pursuant to the terms and conditions of our contractual obligations with the licensors.

Under certain SIP license agreements, we can also derive revenue through royalties from customers who agree to pay usage-based fees to embed our SIP into their own software offerings. Revenue under SIP royalty agreements is generally recognized during the period in which the customer sells its solutions which incorporate our SIP.

Maintenance and Service Revenue

Typically, our software solutions are sold with post-contract support, or PCS, which includes unspecified technical enhancements and customer support. PCS is classified as maintenance revenue and is recognized ratably over the term of the contract, as we satisfy the PCS performance obligation over time.

We also recognized an immaterial portion of our revenue from device characterization and modeling services for the years ended 2022 and 2023. Revenue is recognized upon the completion of the requested services and, as applicable, satisfaction of customer acceptance terms. Revenue from these services is classified as maintenance and service revenue.

Cost of Revenue and Gross Profit

Cost of revenue consists of personnel costs comprised of salaries and benefits for employees directly involved in our customer support function, such as customer support engineering salary and benefits, costs of our other customer services, allocation of overhead and facility costs and royalties related to the recognized revenue. Gross profit represents revenue less cost of revenue.

Operating Expenses

Our operating expenses consist of research and development, selling and marketing, and general and administrative expenses. Personnel costs are the most significant component of our operating expenses and consist of salaries, benefits, bonuses and commissions. Our operating expenses also include consulting costs, costs of facilities, information technology, depreciation and amortization. We expect our operating expenses to fluctuate as a percentage of revenue over time. Historically, we have not recognized stock-based compensation, but we expect we will do so after the closing of our initial public offering. We expect that this expense will be a component of general and administrative expense, research and development expense, selling and marketing expense and cost of revenue, and any such amounts could be significant. As of December 31, 2023, we had $24.5 million in deferred stock-based compensation expense, of which $11.8 million relates to awards that have met the Time-Based Requirement but not the Liquidity Event Requirement, and the remaining $12.7 million in deferred stock-based compensation expense relates to awards that have not met either requirement. In the period in which the Liquidity Event Requirement is satisfied, we will record cumulative stock-based compensation expense for the service period through such date using the straight-line attribution method, net of actual forfeitures, based on the grant-date fair value of the RSU awards. Had the initial public offering, a qualifying Liquidity Event, occurred on December 31, 2023, the Time Based Requirement would have been accelerated, in accordance with their terms, for an additional 174,450 RSUs, and we would have recognized cumulative combined stock-based compensation expense of $14.7 million for active employees, terminated employees, executive officers and directors.

Research and Development

Our research and development expense consists primarily of personnel costs comprised of salaries, benefits for employees directly involved in our research and development efforts, as well as engineering, quality assessment, other related costs associated with the development of new products, enhancements to existing products, quality assurance and testing and allocated overhead costs. We expense research and development costs as incurred. We believe that continued investment in our software solutions and services is important for our future growth and acquisition of new customers and, as a result, we expect our research and development expenses to continue to increase, although it may fluctuate as a percentage of revenue from period to period depending on the timing of these expenses.

Selling and Marketing

Selling and marketing expense consists of personnel costs comprised of salaries, benefits, sales commissions, travel costs, and field application engineering directly involved in our selling and marketing efforts, as well as professional and consulting fees, advertising expenses, and allocated overhead costs. We expect selling and marketing expense to continue to increase as we increase our sales and marketing personnel and grow our international operations, although it may fluctuate as a percentage of revenue from period to period depending on the timing of these expenses.

General and Administrative

General and administrative expense consists of personnel costs associated with our executive, legal, finance, human resources, information technology and other administrative functions, including salaries, benefits and bonuses. General and administrative expense also includes professional and consulting fees, accounting fees, legal costs, and allocated overhead costs. We expect general and administrative expense to increase as we expand our finance and administrative personnel, grow our operations, and incur additional expense associated with operating as a public company, including director and officer liability insurance and legal and compliance costs, although it may fluctuate as a percentage of revenue from period to period depending on the timing of these expenses.

Impairment Charges

On February 24, 2022, Russia launched an invasion of Ukraine. As a result of local economic uncertainties and disruption created by this ongoing conflict, we recorded an impairment charge of $0.6 million during the year ended December 31, 2022 in order to reduce the carrying value of intangible assets associated with our Ukrainian subsidiary, which management determined would not be recoverable.

Interest and Other Expense, Net

Interest and other expense, net includes interest income earned on cash balances or other sources, interest expense associated with cost of borrowings, leases or interest-bearing agreements, foreign exchange gains and losses and changes in the fair value of contingent consideration associated with legacy acquisitions.

Income Tax Provision

Income tax provision is our estimate of current tax expense incurred from the consolidated results of operations globally.

Results of Operations

The following table sets forth our results of operations for the years ended December 31, 2022 and 2023:

	Year Ended December 31,	
	2022	2023
	(in thousands)	
Revenue:		
Software license revenue	$ 34,411	$ 39,331
Maintenance and service	12,063	14,915
Total revenue	46,474	54,246
Cost of revenue	8,887	9,354
Gross profit	37,587	44,892
Operating expenses:		
Research and development	12,447	13,170
Selling and marketing	10,222	12,707
General and administrative	16,231	17,881
Impairment charges	560	—
Total operating expenses	39,460	43,758
Operating income (loss)	(1,873)	1,134
Interest and other expense, net	(355)	(624)
Income (loss) before income tax provision	(2,228)	510
Income tax provision	1,700	826
Net loss	$ (3,928)	$ (316)

The following table summarizes our results of operations as a percentage of total revenue for years ended December 31, 2022 and 2023:

	Year Ended December 31,	
	2022	2023
	(as a percentage of total revenue)	
Revenue:		
Software license revenue	74 %	73 %
Maintenance and service	26 %	27 %
Total revenue	100 %	100 %
Cost of revenue	19 %	17 %
Gross profit	81 %	83 %
Operating expenses:		
Research and development	27 %	24 %
Selling and marketing	22 %	23 %
General and administrative	35 %	33 %
Impairment charges	1 %	— %
Total operating expenses	85 %	81 %
Operating income (loss)	(4)%	2 %
Interest and other expense, net	(1)%	(1)%
Income (loss) before income tax provision	(5)%	1 %
Income tax provision	4 %	2 %
Net loss	(8)%	(1)%

Comparison of the Years Ended December 31, 2022 and 2023

Revenue

	Year Ended December 31,	
	2022	2023
	(in thousands)	
Revenue:		
Software license revenue	$ 34,411	$ 39,331
Maintenance and service	12,063	14,915
Total revenue	$ 46,474	$ 54,246

Total revenue increased $7.8 million, or 17%, from $46.5 million for the year ended December 31, 2022 to $54.2 million for the year ended December 31, 2023. The growth in total revenue was driven by $2.0 million of revenue from new customers and an increase in revenue from customer renewals of $5.8 million. Software license revenue increased $4.9 million, or 14%, from $34.4 million for the year ended December 31, 2022 to $39.3 million for the year ended December 31, 2023. Software license revenue generated from the licensing of a product licensed from a third party vendor increased $0.3 million from $4.2 million for the year ended December 31, 2022 to $4.5 million for the year ended December 31, 2023. Maintenance and service revenue increased $2.9 million, or 24%, from $12.1 million for the year ended December, 2022 to $14.9 million for the year ended December 31, 2023, driven by an increase in support services as a result of an increase in software license deliveries on new sales and customer renewals during fiscal 2023.

Gross Profit and Cost of Revenue

	Year Ended December 31,	
	2022	2023
	(in thousands)	
Total revenue	$ 46,474	$ 54,246
Cost of revenue	8,887	9,354
Gross profit	$ 37,587	$ 44,892
Gross profit margin	81 %	83 %

Gross profit increased $7.3 million, or 19%, from $37.6 million for the year ended December 31, 2022 to $44.9 million for the year ended December 31, 2023. Gross profit margin increased from 81% for the year ended December 31, 2022 to 83% for the year ended December 31, 2023, driven by an increase in the contribution of software license revenue to total revenue and a decline in the U.S. dollar value of personnel costs associated with our international subsidiaries. Royalty expense to a third party vendor from whom we licensed a SIP declined $0.1 million from $2.1 million for the year ended December 31, 2022 to $2.0 million for the year ended December 31, 2023.

Operating Expenses

	Year Ending December 31,	
	2022	2023
	(in thousands)	
Operating expenses		
Research and development	$ 12,447	$ 13,170
Selling and marketing	10,222	12,707
General and administrative	16,231	17,881
Impairment charges	560	$ —
Total operating expenses	$ 39,460	$ 43,758

Research and Development Expenses

Research and development expenses were $12.4 million and $13.2 million for the years ended December 31, 2022 and 2023, respectively. The increase of $0.8 million, or 6%, was primarily due to higher compensation of $0.4 million and benefits of $0.4 million primarily related to increased headcount.

Selling and Marketing Expenses

Selling and marketing expenses were $10.2 million and $12.7 million for the years ended December 31, 2022 and 2023, respectively. The increase of $2.5 million, or 24%, was primarily due to higher compensation of $1.2 million and benefits of $0.4 million primarily related to increased headcount, a $0.7 million increase in sales and marketing related travel, conferences, trade shows and advertising, and a $0.2 million increase in sales commissions during the year ended December 31, 2023.

General and Administrative Expenses

General and administrative expenses were $16.2 million and $17.9 million for the years ended December 31, 2022 and 2023, respectively. The increase of $1.7 million, or 10%, reflects higher compensation of $1.1 million and benefits of $0.3 million primarily related to increased headcount and a $0.8 million increase in software maintenance and license fees associated with expansion of our financial reporting and compliance systems; partially offset by a $0.3 million decline in facilities and equipment rental expense and a $0.2 million decline in our allowance for credit losses.

Impairment Charges

On February 24, 2022, Russia launched an invasion of Ukraine. As a result of local economic uncertainties and disruption created by the initiation of war, we recorded an impairment charge of $0.6 million to write down the carrying value of intangible assets associated with our Ukrainian subsidiary which management determined would not be recoverable. See also consolidated financial statements for further discussion. See Notes 6 and 16 of our consolidated financial statements for the years ended December 31, 2022 and 2023 appearing elsewhere in this prospectus for additional information.

Interest and Other Expense, Net

Interest and other expense, net, was $0.4 million and $0.6 million for the years ended December 31, 2022 and 2023, respectively. Interest and other expense, net includes interest income earned on cash balances or other sources, interest expense associated with cost of borrowings, leases or interest-bearing agreements, foreign exchange gains

and losses and changes in the fair value of contingent consideration associated with legacy acquisitions. The decrease in interest and other expense, net, was primarily the result of foreign exchange rate fluctuations.

Income Tax Provision

Income tax provision was $1.7 million and $0.8 million for the years ended December 31, 2022 and 2023, respectively. See Note 12 of our consolidated financial statements for the years ended December 31, 2022 and 2023 appearing elsewhere in this prospectus further discussion.

Key Operating Indicators and Non-GAAP Financial Measures

We use the following key performance indicators and non-GAAP financial measures to analyze our business performance and financial forecasts and to develop strategic plans which we believe provide useful information to investors and others in understanding and evaluating our results of operations in the same manner as our management team. These key performance indicators and non-GAAP financial measures are presented for supplemental informational purposes only, should not be considered a substitute for financial information presented in accordance with GAAP and may differ from similarly titled metrics or measures presented by other companies.

Bookings

We define a booking as a signed contract and related purchase commitment from a customer, based on the value set forth in a purchase order. We believe bookings are a useful metric to measure the success of customer sales and provide an indication of trends in our operating results that are not necessarily reflected in our revenue, because our revenue recognition is based on the later satisfaction of our customer obligations, and not of the sales to customers at the time of sale. Reported bookings may be subject to adjustments and potential cancellations prior to the satisfaction of our customer obligations. For the years ended December 31, 2022 and 2023, we recorded $49.7 million and $58.1 million in bookings, respectively.

The following table sets forth our bookings for each of the quarterly periods during the years ended December 31, 2022 and 2023.

	Three Months Ended							
	Mar 31, 2022	Jun 30, 2022	Sep 30, 2022	Dec 31, 2022	Mar 31, 2023	Jun 30, 2023	Sep 30, 2023	Dec 31, 2023
	(in thousands)							
Bookings	$ 14,111	$ 11,201	$ 11,967	$ 12,416	$ 15,667	$ 14,362	$ 12,487	$ 15,565

Non-GAAP Operating Income (Loss) and Non-GAAP Net Income (Loss)

We report our financial results in accordance with GAAP. However, our management believes that non-GAAP operating income (loss) and non-GAAP net income (loss) provide investors with additional useful information in evaluating our performance. These financial measures are not required by or presented in accordance with GAAP. We believe, however, that these non-GAAP financial measures, when taken together with our financial results presented in accordance with GAAP, provide meaningful supplemental information regarding our operating performance and facilitates internal comparisons of our historical operating performance on a more consistent basis by excluding certain items that may not be indicative of our business, results of operations or outlook and provide a useful measure for period-to-period comparisons of our business performance.

We define non-GAAP operating income (loss) as our GAAP operating income (loss) adjusted to exclude certain costs, including acquisition-related litigation costs, executive severance, amortization of acquired intangible assets, IPO preparation costs, regulatory compliance costs and impairment charges. We define non-GAAP net income (loss) as our GAAP net income (loss) adjusted to exclude certain costs, including acquisition-related litigation costs, executive severance, amortization of acquired intangible assets, IPO preparation costs, regulatory compliance costs, impairment charges, change in fair value of contingent consideration, foreign exchange (gain) loss, and gain on extinguishment of debt. We monitor non-GAAP operating income (loss) and non-GAAP net income (loss) as non-GAAP financial measures to supplement the financial information we present in accordance with GAAP to provide investors with additional information regarding our financial results.

Certain items are excluded from our non-GAAP operating income (loss) and non-GAAP net income (loss) because these items are non-cash in nature, or are not indicative of our core operating performance, and render comparisons with prior periods and competitors less meaningful. We adjust GAAP operating income (loss) and net income (loss) for these items to arrive at non-GAAP operating income (loss) and non-GAAP net income (loss) because these amounts can vary substantially from company to company within our industry depending upon accounting methods and book values of assets, capital structure and the method by which the assets were acquired.

The following table reconciles operating income (loss) to non-GAAP operating income (loss).

	Year Ended December 31,		
	2021	2022	2023
	(in thousands)		
Operating income (loss)	$ (3,536)	$ (1,873)	$ 1,134
Add:			
Acquisition-related litigation costs[1]	1,148	1,340	1,707
Executive severance[2]	280	—	—
Amortization of acquired intangible assets[3]	808	316	339
IPO preparation costs[4]	—	1,429	1,221
Regulatory compliance costs[5]	—	523	—
Impairment charges[6]	—	560	—
Non-GAAP operating income (loss)	$ (1,300)	$ 2,295	$ 4,401

The following table reconciles net loss to non-GAAP net income (loss).

	Year Ended December 31,		
	2021	2022	2023
	(in thousands)		
Net loss	$ (1,845)	$ (3,928)	$ (316)
Add:			
Acquisition-related litigation costs[1]	1,148	1,340	1,707
Executive severance[2]	280	—	—
Amortization of acquired intangible assets[3]	808	316	339
IPO preparation costs[4]	—	1,429	1,221
Regulatory compliance costs[5]	—	523	—
Impairment charges[6]	—	560	—
Change in fair value of contingent consideration[7]	295	(211)	325
Foreign exchange (gain) loss	(93)	525	335
Gain on extinguishment of debt[8]	(2,278)	—	—
Income tax effect of non-GAAP adjustments[9]	—	(137)	(169)
Non-GAAP net income (loss)	$ (1,685)	$ 417	$ 3,442

(1) Reflects litigation-related expenses incurred in connection with our acquisitions.
(2) Includes executive severance which occurred in connection with management changes.
(3) Reflects the amortization of intangible assets attributable to our acquisitions.
(4) Reflects one-time costs including third-party professional services fees and costs incurred in connection with, and in preparation for, this offering. Such costs do not include those costs that were considered direct and incremental to the offering and therefore capitalized as deferred transaction costs.
(5) Represents certain legal fees and associated cost associated with export compliance that are considered non-recurring.
(6) Reflects impairment charges related to certain intangible assets assumed through our acquisition of PolytEDA. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Components of Results of Operations—Impairment Charges."
(7) Includes the change in fair value of contingent consideration recorded in connection with our acquisitions.
(8) Reflects one-time loan forgiveness for our unsecured loan under the Paycheck Protection Program in June 2021.
(9) Reflects the increase in income tax expenses due to Non-GAAP adjustments.

Liquidity and Capital Resources

Since inception, we have financed operations primarily through proceeds received from payments from our customers and borrowings from Ms. Ngai-Pesic. Our primary sources of liquidity are cash including cash generated from operations. As of December 31, 2023, we had $4.4 million in cash, of which $3.3 million was held by our foreign subsidiaries.

On April 16, 2024, we entered into the Micron Note. The Micron Note is contractually subordinated to the East West Bank Loan through a subordination agreement with East West Bank, but is senior to all of our other existing debt and will be senior to any new future debt incurred (other than any undrawn amount available under the current East West Bank Loan) while it is outstanding. The Micron Note matures three years after the date of issuance and accrues

interest at the rate of 8% annually. The Micron Note will mandatorily convert into a number of shares equal to (i) the outstanding principal amount and accrued interest divided by (ii) a conversion price equal to (a) the price to the public set forth on the front cover of the prospectus, times (b) 0.90 if the initial public offering of common stock is consummated on or prior to May 31, 2024; 0.85 if the initial public offering of common stock is consummated between June 1, 2024 and April 16, 2025; and 0.80 if the initial public offering of common stock is consummated after April 16, 2025, if in each case such shares of our common stock will be eligible for resale pursuant to the registration statement of which this prospectus forms a part. We can prepay the Micron Note only with the prior consent of the holder of the Micron Note. Assuming that this offering is consummated prior to May 31, 2024 and assuming an initial public offering price of $18.00 per share (the midpoint of the price range set forth on the cover page of this prospectus), the Micron Note will convert into 310,562 shares of our common stock. If the shares to be issued to Micron upon conversion of the Micron Note are not registered concurrently with the initial public offering, the principal and accrued and unpaid interest of the previously outstanding Micron Note shall be repaid on the first business day following the date of the initial public offering.

In December 2023, we entered into the East West Bank Loan which provides for borrowings of up to $5.0 million (the “Revolving Line”) bearing interest at a per annum rate equal to one half of one percent (0.5%) above the greater of (i) the prime rate as reported in The Wall Street Journal or (ii) four and one half percent (4.5%). In addition, if any payment required of us under the East West Bank Loan is not made within ten (10) days after such payment is due, we are required to pay East West Bank a late fee equal to the lesser of (i) six (6%) of such unpaid amount or (ii) the maximum amount permitted to be charged under applicable law, not in any case to be less than $5.00. The East West Bank Loan is secured by certain of our assets, including without limitation, certain of our intellectual property and the equity of certain of our subsidiaries. In addition, the East West Bank Loan contains representations and warranties and customary affirmative, financial and negative covenants. The negative covenants include restrictions on, among other things, indebtedness, liens, investments, mergers, dispositions, transactions with affiliates, and dividends and other distributions. Additionally, each extension of credit under the Revolving Facility is subject to us satisfying certain conditions, including East West Bank concluding that there has not been any material impairment to certain of our affairs, financial results, operations and our ability to repay obligations or material deviation from the most recent Financial Plan (as defined in the East West Bank Loan) presented to East West Bank. As of December 31, 2023, there were no outstanding borrowings under the East West Bank Loan.

The East West Bank Loan matures on December 14, 2025 (the “Revolving Maturity Date”), or if there are any outstanding Credit Extensions at such time (as defined in the East West Bank Loan), for so long as any Obligations (as defined in the East West Bank Loan) under the East West Bank Loan remain outstanding or East West Bank has any obligation to make Credit Extensions under the East West Bank Loan, or we can terminate it prior to the Revolving Maturity Date on 10 business days’ notice and if all outstanding Obligations under the East West Bank Loan have been repaid.

In accordance with the East West Bank Loan, we paid $25,000 to East West Bank on the closing date and for so long as the East West Bank Loan is in place, we are required to pay East West Bank (i) a renewal facility fee equal to one half of one percent (0.5%) of the Revolving Line on each anniversary of the Closing Date and (ii) an annual fee of 0.20% of the difference between the Revolving Line and the average daily balance of the outstanding Credit Extensions (as defined in the East West Bank Loan).

On June 13, 2022, we entered into a business financing agreement with Ms. Ngai-Pesic for a line of credit of up to $4.0 million with a maturity of June 13, 2023, or the 2022 Credit Line. On May 25, 2023, we amended the business financing agreement to extend the maturity date of the 2022 Credit Line to June 13, 2024. We can draw funds from the 2022 Credit Line at any time and can repay such amounts at any time without penalty. The interest rate on the 2022 Credit Line is the prime rate plus 1% per annum. The 2022 Credit Line has no restrictions or covenants. We have drawn $2.0 million on the 2022 Credit Line as of December 31, 2023. The total outstanding balance of the 2022 Credit Line was due in full upon the earlier of (i) June 13, 2024 or (ii) 10 days following the date that we secure financing in an amount equal to or greater than the 2022 Credit Line. Concurrent with entering into the East West Bank Loan agreement, Ms. Ngai-Pesic agreed to (i) extend the repayment term of the 2022 Credit Line to be the later of (a) expiration or termination date of the East West Bank Loan or (b) June 13, 2024, and (ii) subordinate the right of repayment of any outstanding amount under the 2022 Credit Line to any amount outstanding under the East West Bank Loan.

On March 30, 2022, we entered into a promissory note in the principal amount of $0.5 million which accrues interest at a rate of 3.25% per annum, or the March 2022 Loan, from Ms. Ngai-Pesic. The March 2022 Loan was repaid in full in December 2022.

On December 8, 2021, we entered into a business financing agreement with Ms. Ngai-Pesic for a short-term promissory note in the principal amount of $0.5 million, or the December 2021 Loan, which was repaid in full in July 2022.

We believe our cash and remaining available borrowing capacity of $2.0 million under our 2022 Credit Line and $5.0 million under our East West Bank Loan will be sufficient to meet our expected working capital needs, capital expenditures, financial commitments and other liquidity requirements associated with our existing operations for at least the next 12 months. We currently have no other committed sources of capital.

As of December 31, 2023, $1.0 million, or 23%, of our cash was maintained with one financial institution in the United States, where our current deposits are in excess of federally insured limits. Past macroeconomic conditions have resulted in the actual or perceived financial distress of many financial institutions, including the recent failures of Silicon Valley Bank, Signature Bank, First Republic Bank and the UBS takeover of Credit Suisse. If the financial institutions with whom we do business were to become distressed or placed into receivership, we may be unable to access the cash we have on deposit with such institutions. If we are unable to access our cash as needed, our financial position and ability to operate our business could be adversely affected. If our cash and remaining available borrowing capacity under our 2022 Credit Line or the East West Bank Loan are not sufficient to satisfy our liquidity requirements, we may be required to seek additional financing. If we raise additional funds by issuing equity securities or convertible debt securities, our stockholders will experience dilution. Debt financing, if available, may contain covenants that significantly restrict our operations or our ability to obtain additional debt financing in the future. Any additional financing that we raise may contain terms that are not favorable to us or our stockholders. We cannot assure you that we would be able to obtain additional financing on terms favorable to us or our existing stockholders, or at all. See "Risk Factors—Risks Related to Our Business and Industry—Our ability to raise additional capital in the future may be limited and could prevent us from executing our growth strategy."

Cash Flows

The following table summarizes changes in our cash flows for the periods indicated.

	Year Ended December 31,	
	2022	2023
	(in thousands)	
Cash provided by (used in):		
Net cash (used in) provided by operating activities	$ (2,097)	$ 1,180
Net cash used in investing activities	(89)	(339)
Net cash provided by (used in) financing activities	624	(1,652)
Effect of exchange rate changes	336	(246)
Net decrease in cash	$ (1,226)	$ (1,057)

Operating Activities

Cash flows from operating activities may vary significantly from period to period depending on a variety of factors including the timing of our collections and payments. Our ongoing cash outflows from operating activities primarily relate to personnel related costs, payments for professional services, office leases and related facilities costs, and software supporting our company infrastructure, among others. Our primary source of cash inflows is collections of our accounts receivable. The timing of invoices to our customers and subsequent collection is based on agreements executed and payment terms that can vary by customer.

Net cash used by operating activities for the year ended December 31, 2022 was $2.1 million compared to $1.2 million of net cash provided by operating activities for the year ended December 31, 2023. The $3.3 million increase in net cash provided by operating activities reflects a $3.6 million decline in our net loss, partially offset by a $0.4 million decline in net working capital, driven by changes in contract assets during the year ending December 31, 2023.

Investing Activities

Net cash used for investing activities for the years ended December 31, 2022 and 2023 reflects purchases of property and equipment of $0.1 million and $0.3 million, respectively.

Financing Activities

Net cash provided by financing activities for the year ended December 31, 2022, was $0.6 million and reflects our $2.0 million drawdown on the 2022 Credit Line, partially offset by our $0.5 million repayment of the December 2021 Loan and $0.9 million of contingent consideration paid in connection with our Nangate and PolytEDA acquisitions. Net cash used by financing activities for the year ended December 31, 2023, was $1.7 million and reflects $1.0 million of contingent consideration paid in connection with our Nangate and PolytEDA acquisitions and $0.7 million of transaction costs incurred in connection with our anticipated offering.

Effects of Exchange Rate Fluctuations on Cash

The effects of exchange rate fluctuations on cash was $0.3 million and $(0.2) million at December 31, 2022 and 2023, respectively.

Contractual Obligations

The following table summarizes our financial commitments for contractual obligations as of December 31, 2023:

Year Ending December 31,	Operating Lease Liabilities	Contingent Consideration	2022 Credit Line	Total
		(in thousands)		
2024	$ 749	$ 103	$ 2,000	$ 2,852
2025	$ 510	$ 9	$ —	$ 519
2026	$ 235	$ —	$ —	$ 235
2027	$ 196	$ —	$ —	$ 196
2028	$ 196	$ —	$ —	$ 196
Thereafter	$ 196	$ —	$ —	$ 196
Total contractual obligations	$ 2,082	$ 112	$ 2,000	$ 4,194

Critical Accounting Policies and Significant Judgments and Estimates

Our consolidated financial statements have been prepared in accordance with GAAP. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, expenses and related disclosures. We base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances. We evaluate our estimates and assumptions on an ongoing basis. Actual results may differ from these estimates. To the extent that there are material differences between these estimates and our actual results, our future financial statements will be affected.

The critical accounting policies requiring estimates, assumptions, and judgments that we believe have the most significant impact on our consolidated financial statements are described below. See Note 2 to our consolidated financial statements appearing elsewhere in this prospectus for a description of our other significant accounting policies.

Revenue Recognition

Our revenue is derived principally from software licensing and related maintenance and service. We enter into agreements that include combinations of software and maintenance and services, which are accounted for as separate performance obligations with differing revenue recognition patterns. We recognize revenue pursuant to ASC Topic 606, *Revenue from Contracts with Customers*. The core principle of this guidance is that an entity should recognize revenue to depict the delivery of software or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for such software or services. To achieve this objective we apply a five-step approach: (1) identify the contract(s) with a customer, (2) identify the performance obligations within the contract, (3) determine the transaction price, (4) allocate the transaction price to the separate performance obligations and (5) recognize revenue when, or as, each performance obligation is satisfied.

Software license revenue is recognized upfront upon delivery of the licensed software. Typically, our software solutions are licensed with post contract support (“PCS”) which includes unspecified technical enhancements and customer support. The PCS is classified as maintenance and service revenue and is recognized ratably over the term of the maintenance period, as we satisfy the PCS performance obligation over time.

We also offer standard SIP licenses, developed both in house and in partnership with industry-recognized firms. Our SIP licenses provide customers with access to SoC design SIP which meet established industry standards, thus saving customers the time and resources required to re-invent similar design methodology. SIP licenses offered by us are generally ready to use upon delivery. No modification is required in order for the customer to obtain value for use in their integrated circuit designs. We do not license SIP without support.

Revenue associated with the license of our SIP is classified as software license revenue and recognized as revenue upon delivery of the licensed SIP. Under certain SIP license agreements, we also derive revenue through royalties from customers who agree to pay usage-based fees to embed our SIP into their own SoCs. Royalties are generally recognized as revenue during the period in which the customer sells its solutions which incorporate our SIP. The PCS is classified as maintenance and service revenue and is recognized ratably over the term of the contract, as we satisfy the PCS performance obligation over time.

In connection with our SIP which was developed in partnership with a third party vendor, we have entered into various renewable license agreements under which we have the right to sell the technology we license from the third party vendor. When we license these particular SIP to a customer, we generally act as a principal to the transaction because we control the promised SIP that we deliver to the customer. Consistent with our role as a principal, we recognize SIP revenue on a gross basis. Royalty costs are reported in cost of revenue upon delivery pursuant to the terms and conditions of our contractual obligations with the licensors. Our licensing arrangement with this third party vendor terminated on October 30, 2023.

We also recognized an immaterial portion of our revenue from device characterization and modeling services for the years ended December 31, 2022 and 2023. Revenue is recognized upon the completion of the requested services and, as applicable, satisfaction of customer acceptance terms. Revenue from these services is classified as maintenance and service revenue.

Payment terms and conditions vary by contract type, although terms generally include a requirement of payment within 30 days. Invoicing may vary from timing of revenue recognition. When timing of invoicing or collections precedes revenue recognition, we record deferred revenue. When timing of revenue recognition precedes invoicing or collections, we record a contract asset. In instances where the timing of revenue recognition differs from the timing of invoicing, we have determined our contracts generally do not include a significant financing component.

Non-income related taxes collected from customers and remitted to governmental authorities are recorded on the consolidated balance sheets as accounts receivable and accrued expenses. The collection and payment of these amounts are reported on a net basis in the consolidated statements of loss.

We do not offer a right of return. We warrant to our customers that our software will perform substantially as specified in our current user manuals. We have not experienced significant claims related to software warranties beyond the scope of maintenance support, which we are already obligated to provide. The warranty is not sold, and cannot be purchased, separately. The warranty does not provide any type of additional service to the customer or performance obligation for us.

Our agreements with customers generally require us to indemnify the customer against claims that our software infringes third-party patent, copyright, trademark or other proprietary rights. Such indemnification obligations are generally limited in a variety of industry-standard respects, including by affirming our right to replace an infringing product.

Significant Judgments

Our license agreements enable customers to use our software solutions and to receive certain services. Judgment is required to determine if the promises are separate performance obligations, and if so, to allocate the transaction price to each performance obligation. We use the estimated standalone selling price method to allocate the transaction price for each performance obligation. The estimated standalone selling price is determined using all information reasonably available to us, including market conditions and other observable inputs, historical pricing and the value relationship between our various product and service offerings. The corresponding revenues are recognized as the related performance obligations are satisfied.

Contract Assets and Liabilities

Payment terms and conditions vary by contract type, although terms generally include a requirement of payment within 30 days. The timing of revenue recognition may differ from the timing of invoicing to customers, and these timing differences result in receivables (billed), contract assets (unbilled), or contract liabilities (deferred revenue) on our consolidated balance sheets. We record a contract asset when revenue is recognized prior to the right to invoice, or deferred revenue when revenue is recognized subsequent to invoicing. For time-based software agreements, customers are generally invoiced in equal, quarterly amounts, although some customers are invoiced in single or annual amounts. We record an unbilled receivable when revenue is recognized and it has an unconditional right to invoice and receive payment.

Financing

We are required to adjust promised amounts of consideration for the effects of the time value of money if the timing of the payments provides the customer or us with a significant financing benefit. We consider various factors in assessing whether a financing component exists, including the duration of the contract, market interest rates and the timing of payments. Our contracts do not include a significant financing component requiring adjustment to the transaction price.

Goodwill and Other Intangible Assets

Goodwill represents the excess of the fair value of consideration transferred over the fair value of net identifiable assets acquired. Other intangible assets consist of customer relationships, developed technology and noncompete

agreements which are amortized over their useful lives of five years. Intangible assets are reviewed for impairment whenever events or changes in circumstances indicate an asset's carrying value may not be recoverable.

Goodwill and intangible assets with indefinite useful lives are not amortized but are tested annually for impairment and more often if there is an indicator of impairment.

We perform testing for impairment of goodwill on an annual basis, or as events occur or circumstances change that would more likely than not reduce the fair value of our single reporting unit below its carrying amount. Goodwill is considered impaired if the carrying value of the reporting unit exceeds its fair value.

Intangible assets are reviewed for impairment whenever events or changes in circumstances indicate an asset's carrying value may not be recoverable.

No indicators of impairment or impairments charges were identified or recorded to goodwill during the fiscal years ended December 31, 2022 and 2023.

In connection with Russia's invasion of Ukraine in February of 2022, we recorded an impairment charge of $0.6 million associated with intangibles held by our Ukrainian subsidiary which management determined would not be recoverable. See also Note 6, Goodwill and Intangible Assets and Note 16, Fair Value of Financial Instruments of our consolidated financial statements for the year ended December 31, 2023 appearing elsewhere in this prospectus for additional information.

No indicators of impairment or impairment charges were identified or recorded to intangibles during the fiscal year ended December 31, 2023.

Stock-Based Compensation

We account for stock-based payments in accordance with the authoritative guidance issued by the FASB on stock-based compensation, which establishes the accounting for transactions in which an entity exchanges its equity instruments for goods or services. Under the provisions of the authoritative guidance, stock-based compensation expense is measured at the grant date, based on the fair value of the award, and is recognized as an expense over the requisite employee service period (generally the vesting period), net of actual forfeitures. For stock-based payment awards that contain performance criteria, stock-based compensation expense is recorded when the achievement of the performance condition is considered probable of achievement and is recorded on a straight-line basis over the requisite service period. If such performance criteria are not met, no compensation expense is recognized and any recognized compensation expense is reversed.

Historically, we have not recorded stock-based compensation expense, as the RSUs granted under the 2014 Plan carry both a "time-based vesting requirement" and a "liquidity event vesting requirement," with the satisfaction of the "liquidity event requirement", an improbable contingency as of December 31, 2022 and 2023. See Note 11 to our consolidated financial statements for the year ended December 31, 2023 appearing elsewhere in this prospectus for additional information.

As there has been no public market for our common stock to date, the estimated fair value of our common stock has been determined by our board of directors as of the date of each RSU grant, with input from management, and considering our most recently available third-party valuation of our common stock. These third-party valuations were performed in accordance with the guidance outlined in the American Institute of Certified Public Accountants Accounting and Valuation Guide, *Valuation of Privately-Held Company Equity Securities Issued as Compensation*.

Our board of directors considered the fair value of our common stock by first determining the equity value of our company, and then allocating that value among our equity securities to derive a per share value of our common stock. The equity value of our company was determined using the market approach by reference to the closest round of equity financing, if any, preceding the date of valuation and analysis of the trading values of publicly traded companies deemed comparable to us.

In addition to considering the results of these third-party valuations, our board of directors considered various objective and subjective factors to determine the fair value of our common stock as of each grant date, including:

- our results of operations, financial position, and capital resources;
- industry outlook;
- the lack of marketability of our common stock;
- the fact that the RSU grants involve illiquid securities in a private company;
- the likelihood of achieving a liquidity event, such as an initial public offering or a sale of our company, given prevailing market conditions;

- the history and nature of our business, industry trends and competitive environment; and
- general economic outlook including economic growth, inflation and unemployment, interest rate environment and global economic trends.

The assumptions underlying these valuations represented management's best estimates, which involved inherent uncertainties and the application of management's judgment. As a result, if we had used significantly different assumptions or estimates, the fair value of our common stock and our stock-based compensation expense could be materially different.

Following the completion of this offering, the fair value of our common stock will be based on the closing price as reported on the date of grant on the primary stock exchange on which our common stock is traded.

Internal Control Over Financial Reporting

Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with GAAP. Under standards established by the Public Company Accounting Oversight Board, or PCAOB, a deficiency in internal control over financial reporting exists when the design or operation of a control does not allow management or personnel, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis. The PCAOB defines a material weakness as a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of annual or interim financial statements will not be prevented, or detected and corrected, on a timely basis.

We have in the past and continue to identify material weaknesses in our internal control over financial reporting ("ICFR"). The material weakness, identified in fiscal year 2021, in connection with the preparation of our consolidated financial statements, related to a lack of formalized accounting processes over ICFR and an insufficient complement of personnel possessing the technical accounting and financial reporting knowledge and experience to support a timely and accurate close and financial statement reporting process. The material weakness was unremediated as of December 31, 2023.

We are working to remediate the material weakness and are taking steps to strengthen our internal control over financial reporting through the enhancement and formalization of our accounting processes over ICFR and the hiring of additional finance and accounting personnel, and we may take additional actions, including hiring additional personnel, implementing system upgrades or other organizational changes. With the additional personnel, we intend to take appropriate and reasonable steps to remediate this material weakness through the formalization of accounting policies and controls and retention of appropriate expertise for complex accounting transactions. We are also reviewing and documenting our accounting and financial processes and internal controls, building out our financial management and reporting systems infrastructure, and further developing and formalizing our accounting policies and financial reporting procedures, which includes ongoing senior management reviews. While we are taking measures and plan to continue to take measures to design and implement an effective control environment, we cannot assure you that these measures will significantly improve or remediate the material weakness described above. This material weakness has not been remediated to date.

The actions that we are taking are subject to ongoing executive management review and will also be subject to audit committee oversight. If we are unable to successfully remediate the material weakness, or if in the future, we identify further material weaknesses in our internal control over financial reporting, we may not detect errors on a timely basis and our financial statements may be materially misstated. See "Risk Factors—General Risk Factors and Risks Related to Being a Public Company—We have identified a material weakness in our internal control over financial reporting. If our remediation measures are ineffective, or if we experience additional material weaknesses in the future or otherwise fail to maintain an effective system of internal controls in the future, we may not be able to report our financial condition or results of operations accurately or on a timely basis, prevent fraud or file our periodic reports in a timely manner and may incur additional costs to remediate, all of which may adversely affect investor confidence in us and our reported financial information and, as a result, impact the value of our common stock."

Emerging Growth Company Status and Extended Transition Period Election

We qualify as an "emerging growth company" pursuant to the provisions of the JOBS Act. For as long as we are an "emerging growth company," we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not "emerging growth companies," including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404(b), reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, exemptions from the requirements of holding advisory "say-on-pay" votes on executive compensation, and stockholder advisory votes on golden parachute compensation.

The JOBS Act also permits an emerging growth company like us to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies. We have elected to "opt-in" to this extended transition period for complying with new or revised accounting standards and, therefore, we will not be subject to the same new or revised accounting standards as other public companies that comply with such new or revised accounting standards on a non-delayed basis.

Upon completion of this offering, we will also be a "smaller reporting company." We may continue to be a smaller reporting company after this offering if either (i) the market value of our common stock held by non-affiliates is less than $250.0 million or (ii) our annual revenue is less than $100.0 million during the most recently completed fiscal year and the market value of our common stock held by non-affiliates is less than $700.0 million. If we are a smaller reporting company at the time we cease to be an emerging growth company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K, we are not required to comply with the auditor attestation requirements of Section 404 and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation.

Qualitative and Quantitative Disclosures about Market Risk

Interest Rate Risk

We had cash of $4.4 million as of December 31, 2023, which consisted of bank deposits. We do not enter into investments for trading or speculative purposes and have not used any derivative financial instruments to manage our interest rate risk exposure. On June 13, 2022, we entered into the up to $4.0 million 2022 Line of Credit with Ms. Ngai-Pesic, bearing interest at a rate of prime plus 1% per annum. We have drawn $2.0 million on the 2022 Line of Credit as of December 31, 2023. As of December 31, 2023, the balance of the 2022 Credit Line was $2.0 million. The interest rate paid on these borrowings is variable, indexed to the prime rate. In December 2023, we entered the East West Bank Loan which provides for borrowings of up to $5.0 million bearing interest at a per annum rate equal to one half of one percent (0.5%) above the greater of (i) the prime rate or (ii) four and one half percent (4.5%). As of December 31, 2023, there were no outstanding borrowings under the East West Bank Loan. A hypothetical 10% change in interest rates would not result in a material impact on our consolidated financial statements.

Foreign Currency Exchange Risk

The effects of foreign exchange on net cash was $0.3 million and $0.2 million for the years ended December 31, 2022 and 2023, respectively. The change was primarily due to the strength of the U.S. dollar against the local currencies which we price and collect accounts receivable, primarily the Korean Won and the Japanese Yen, and convert to U.S. dollars to support our operations. If foreign currency exchange rates were to change adversely by 10% from the levels at December 31, 2023, the effect on our results before taxes from foreign currency fluctuations on our balance sheet would be approximately $1.0 million. The above analysis disregards the possibility that rates for different foreign currencies can move in opposite directions and that losses from one currency may be offset by gains from another currency. As our foreign currency risk increases in the future, we will evaluate alternative strategies, including hedging, to mitigate our foreign currency exposure.

Recently Adopted Accounting Pronouncements

See Note 2 to our consolidated financial statements included elsewhere in this prospectus for information regarding recently issued accounting pronouncements.

BUSINESS

Overview

We are a provider of TCAD software, EDA software and SIP. TCAD, EDA and SIP solutions enable semiconductor and photonics companies to increase productivity, accelerate their products' time-to-market and reduce their development and manufacturing costs. We have decades of expertise developing the "technology behind the chip" and providing solutions that span from atoms to systems, starting with providing software for the atomic level simulation of semiconductor and photonics material for devices, to providing software and SIP for the design and analysis of circuits and system level solutions. We provide SIP for SoC, ICs and SIP management tools to enable team collaborations on complex SoC designs. Our customers include semiconductor manufacturers, OEMs and ODMs who deploy our solutions in production flows across our target markets, including display, power devices, automotive, memory, HPC, IoT and 5G/6G mobile markets.

EDA offerings, including our solutions, enable companies to streamline their IC design workflows, develop complex IC designs in a cost-efficient manner, and maintain acceptable IC manufacturing yield, by providing interoperable tools that capture and simulate designs from concept to analysis. Our TCAD device and process simulation tools provide compatible data structures that can be used with our EDA modeling, analysis, simulation, verification and yield enhancement tools. Further, our EDA tools are used for designing SIP and IC designs that can be managed and validated by our SIP management tools.

According to Grand View Research, the global aggregate EDA software market was valued at $11.1 billion in global revenue in 2022 and is expected to reach $22.2 billion in global revenue in 2030, representing a 9.1% CAGR, driven in part by the growing complexity of semiconductor and photonics designs and increasing challenges associated with advanced materials and shrinking process technology nodes across the EDA market. Based on Electronic System Design Alliance's breakdown of the EDA market, including SIP, which was valued at $17.0 billion in global revenue in 2023, we believe Silvaco's solutions compete in portions of the EDA software market representing $3.1 billion of the current global aggregate EDA software market. We believe these trends will increase the need for TCAD, EDA and SIP solutions that accelerate time-to-market at reduced development and manufacturing costs and deliver processes and devices with better operating performance, lower cost, reduced power and improved product yield. In estimating the growth of the EDA software market, Grand View Research considered end-use outlook in market segments including microprocessors and controllers, memory management units and others, the overall growth in the integrated circuits and electronic manufacturing markets, regional outlooks in North America, Europe, Asia Pacific, Latin America and the Middle East and Africa, and other variables, including those related to value chains, technology, regulatory frameworks, the impact of certain market drivers and market restraints, including cyber attacks, and competitive and political landscapes affecting the EDA market, and the effects of advancement of technology used in the end-use markets on the demand of EDA software solutions.

We are a global leader in TCAD solutions for the power devices and display markets. Our TCAD solutions are designed to provide complete, fast, and accurate simulations and modeling of semiconductor and photonics device behavior, allowing our customers to design original, value-added processes and devices, explore trade-offs in performance, power, size and reliability and optimize their final design for manufacturing. By reducing the need to run expensive and time-consuming experiments in manufacturing, TCAD solutions enable companies to rapidly bring their products to market. Our TCAD solutions have been adopted by 3 of the 10 largest semiconductor companies by revenue in 2023, by 8 of the 10 largest flat panel display companies by revenue in 2023, and by 4 of the 10 leading power semiconductor devices companies in 2023.

In addition, we have combined our expertise in semiconductor technologies with machine learning and data analysis to develop an artificial intelligence-based solution named fab technology co-optimization, or FTCO™, for wafer-level fabrication facilities. FTCO uses manufacturing data to perform statistical and physics-based machine learning software simulations to create a computer model or "digital twin" of a wafer that can be used to simulate the fabrication process. As a virtual representation of the manufacturing process and the wafer, this "digital twin" serves as a platform through which customers can run experiments and tests to understand the impact on the yield of a wafer due to any variations in the parameters of the manufacturing process, predict the yield for further research on new products, and reduce the time to market for products, all without the need to run physical wafers which can be time-consuming and expensive. According to data from the Semiconductor Industry Association, it is estimated there are more than 75 companies capable of producing 300mm semiconductor wafers and more than 125 companies' facilities involved in power-related semiconductor fabrication. We believe these companies and their facilities represent potential customers for our FTCO product. We are strategically focusing our marketing efforts on 20 leading companies within each category, totaling 40 potential customers, and estimate that the addressable market for these targeted potential customers could represent an opportunity exceeding $500 million. We have partnered with Micron

Technology, Inc. for the development of these modeling tools. We expect to begin licensing this new product in the second quarter of 2024.

Our EDA solutions provide analog custom design flows that bring electrical and physical layout views together with circuit simulation and physical verification including sign-off at select foundries to help ensure correct-by-design and high-yielding products before committing to final silicon. We provide device characterization and modeling solutions that enable our customers to generate accurate, high-quality models for use in simulation and analysis of analog, mixed-signal and RF circuits across our target markets. Our EDA solutions have been adopted by 6 of the 10 largest semiconductor companies by revenue in 2023 and by 7 of the 10 largest flat panel display companies by revenue in 2023.

SIP solutions, including our offerings, provide pre-verified, high-yielding and silicon-proven SIP blocks designed to accelerate time-to-market for SoC designs. Our patented SIP fingerprint technology authenticates SIP before and after use in complex SoC designs to avoid costly design iterations and silicon re-spins. Our EDA solutions for SIP design integrate patented machine learning technologies with the goal of minimizing simulation time, chip area and power consumption. We provide SIP management software at the enterprise-level for managing, tracking and controlling SIPs that are used in SoC designs.

We leverage decades of extensive technological expertise to provide our customers with agilely developed products. In doing so, we have built long-term relationships with select strategic customers that enable us to work with them from project inception in order to tailor solutions for their specific needs. These customer relationships help us improve our new product offerings for the larger market.

Since 2015, we have acquired ten businesses, assets and/or technologies to complement our existing product offerings, expand into new markets or grow our existing market share, increase our engineering talent and enhance our technical capabilities. Our acquisition strategy also allows us to accelerate new product offerings. For example, in 2020, we acquired Dolphin's memory compiler assets and resources for providing embedded memory and register files for SoC designers and foundries. In 2021, we acquired PolytEDA to expand our capabilities for rapid physical verification of IC designs prior to mask creation and manufacturing and for cloud enablement of EDA tools. These new products are used as sign-off tools in several foundries.

Our growth has further been driven by semiconductor and photonics companies' increasing research and development spend due to increasing complexities of new material, new devices, and new systems in the markets we address. We address such market needs by:

- Providing EDA, TCAD and SIP solutions that are interoperable and cost-effective and that our customers can use to introduce their products to market in a timely fashion;
- Using advanced research and development and agile product development techniques to provide our customers with tailored solutions in vertical markets such as display, photonics, power devices, and other markets where new materials or structures are being developed;
- Providing leading-edge products that complement IC design flows and are compatible with customers' existing design flows; and
- Providing production ready and proven SIP, EDA SIP, and SIP/IC design management solutions that can be utilized individually, or as a full interoperable solution.

Our business model primarily consists of selling time-based software licenses, with an average of approximately 3 years per TBL for the years ended December 31, 2022 and 2023. We seek to grow our business by renewing TBL contracts and licensing new products. In addition to TBL revenue, we have revenue streams from our maintenance, support, and services. Additionally, we have historically grown our customer base annually as a result of our new product offering and services. We believe this business momentum helps increase the predictability of our bookings forecast. See *"*Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Operating Indicators and Non-GAAP Financial Measures—Bookings*"* for the definition of "bookings."

In 2021, we generated $47.3 million in bookings and recognized $42.0 million of revenue, a $1.8 million net loss and $2.6 million of negative cash flow from operating activities. We also had a GAAP operating loss of $3.5 million and a non-GAAP operating loss of $1.3 million during 2021. During 2022, we generated $49.7 million in bookings and recognized $46.5 million of revenue, a $3.9 million net loss and $2.1 million of negative cash flow from operating activities. We also had a GAAP operating loss of $1.9 million and a non-GAAP operating income of $2.3 million during 2022. During 2023, we generated $58.1 million in bookings and recognized $54.2 million of revenue, a $0.3 million net loss and $1.2 million of positive cash flow from operating activities. We also had a GAAP operating income of $1.1 million and a non-GAAP operating income of $4.4 million during 2023. As of December 31, 2023, we had over 800 customers, of which over 200 were academic institutions, that relied on our solutions worldwide. Our academic

customers not only have the potential to provide future human resources, but also can act as beta testers and provide feedback that allows us to enhance our products. See *"*Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Operating Indicators and Non-GAAP Financial Measures*"* for additional information on bookings and non-GAAP operating income and the reconciliation of operating income (loss) to non-GAAP operating income (loss).

Industry Background

Increasing semiconductor design complexity. The latest technological applications require greater semiconductor performance and functionality, which have necessitated the shift towards more advanced manufacturing process technologies, new materials, and continued reduction of transistor sizes. IC and SoC complexity have significantly increased to accommodate the increased number of functional SIP blocks per chip. The slowing of Gordon Moore's, or Moore's law (which states that the number of circuits on a microchip doubles every two years), has also led to the adoption of new semiconductor materials to address varying application requirements.

For example, silicon carbide, or SiC, and gallium nitride, or GaN, materials are being adopted in automotive, consumer, and industrial power applications. New memory technologies, including resistive random-access memory and magneto-resistive random-access memory, or MRAM, are being deployed across mobile, HPC, and IoT applications. All these factors have increased semiconductor design complexity, which in turn increases the probability for significant development delays and project failures. As a result, we believe there is a growing need for differentiated and cost-effective tools such as TCAD, EDA and SIP solutions that enable rapid and reliable development of products containing these newly added materials and technologies.

Increasing semiconductor manufacturing and development costs. With each reduction in manufacturing process geometry comes a corresponding increase in manufacturing and development costs. According to IBS, the average cost of designing a 28nm chip is $40.0 million, a 7nm chip is $217.0 million, and a 5nm chip is $416.0 million and a 3nm chip will cost up to $590.0 million. The COVID-19 pandemic and subsequent semiconductor shortage have emphasized the need for supply chain optimization, further accelerating investments in semiconductor foundries. The latest foundries being built are focused on leading-edge manufacturing process technology nodes, primarily driven by mobile applications, and require higher manufacturing yield efficiencies to offset the substantial development costs. As a result of IC technologies moving to sub 7nm process technology nodes and the resultant increase in design difficulty and development costs, we believe the continuing shift will increase demand for TCAD solutions in the design technology optimization loop to deliver high yields, accelerate time-to-market and further reduce costs by reducing the need to run expensive and time-consuming manufacturing experiments. In addition, as these trends continue, EDA solutions that meet manufacturing requirements and can reduce costs associated with potential production delays and project failures, and SIP solutions which can accelerate time-to-market by providing silicon-proven blocks that address complex SoCs and enable new technologies, such as IoT and HPC, are being more readily adopted to mitigate costs and shorten time to market.

Increasing end market diversity. There has been a significant growth in semiconductor demand driven by new applications in emerging markets such as automotive, HPC and IoT. Performance and functionality requirements significantly vary across each market, which drives new design complexities and increases manufacturing and development costs. Even traditional markets for semiconductor, such as display applications, are seeing expanded use cases that require different performance and functionality needs. For example, displays in mobile require low power, augmented and virtual reality emphasizes high refresh rates, and televisions are adopting new materials such as quantum dots to reduce manufacturing complexity. The increased diversity of applications in which semiconductors are being used, is leading to a need for more complex semiconductors to satisfy the needs of such applications, which requires further time and cost to develop such semiconductor solutions. As a result, there is a growing need to accelerate time-to-market and reduce costs by adopting complete TCAD, EDA and SIP solutions that enable customers to design, simulate, verify, and analyze their products from the concept stage all the way up to complete product yield.

Our Markets

To contend with industry performance requirements and new applications, engineers, researchers, and other professionals rely extensively on TCAD, EDA software tools and SIP for designing and optimizing advanced ICs components. Reliance on software tools and SIP has increased in recent years as design challenges have become increasingly complex.

Rapid increase in complexity of SoCs has been the result of shrinking manufacturing process geometries, application specific customization to improve computing performance, and adoption of new materials for high voltage applications and photonics computing. These changes have led to increased investments in our research and development.

The drive to increase performance and diversification of applications is further accelerated by a broad-scale transition to cloud-based software applications and computing on mobile platforms. The development of semiconductors that are optimized for specific applications, including AI, 5G/6G communications and IoT, has continued to fuel demand for our solutions. Our solutions address the markets set forth below.

Solution/ Market	Automotive	IoT	5G/6G	Display	Memory	HPC	Power Devices
TCAD	✔	----	✔	✔	✔	✔	✔
EDA	✔	✔	✔	✔	✔	✔	✔
SIP	✔	✔	✔	----	----	✔	----

Power Electronics Market

With the advent of high-volume manufacturing of new process technologies such as SiC and GaN, many OEMs and ODMs are producing electronic devices and systems that benefit from these technologies. GaN is being used for low power/voltage, high frequency applications and SiC is being used for high power and high voltage switching power applications. These technologies can enable smaller, faster and lower power devices than those built with prior technologies. As a result, many suppliers are switching their products from dated Silicon based devices to wide band-gap, or WBG, semiconductor materials such as GaN. For example, GaN technology has enabled the replacement of existing silicon-based power supplies for laptops, vehicles and battery charging with smaller and lower power solutions.

Since 2021, we have gained over one hundred new customers that utilized, and were early adopters of, our TCAD and EDA solutions to address their simulation/analysis needs for these new technologies at foundries, device and process levels all the way up to the system design for power management.

According to Allied Market Research, the global power electronics market size was valued at $26.6 billion in 2021, and is projected to reach $43.7 billion by 2031, growing at a CAGR of 5.1% from 2022 to 2031. According to FACT.MR SiC & GaN Power Semiconductor Market Report (Worldwide), the SiC and GaN power semiconductor market specifically is expected to grow at a CAGR of 28.8% until 2033. Power electronics play an important role in electrified vehicle applications that provide compact and high-efficient solutions to power conversion. Given the foundries, design houses, ODMs, OEMs, Tier 1s and Tier 2s that provide power electronics solutions, we benefit by enabling our customers in this market with both our TCAD and EDA solutions.

Memory Market

The memory market for semiconductors is expected to continue growing at a fast pace, driven by large increases in the demand for dynamic random-access memory and flash memory products. According to Grand View Research, the memory semiconductor market is estimated to grow at a 5.9% CAGR from 2020 to 2027 and is projected to reach $134.6 billion in 2027. Within data centers, AI technologies require new types of memory technologies such as MRAM that perform weighting calculations in the memory chip itself. We believe our TCAD solution, complemented by our device modeling tools and services, enables memory design teams to explore new materials and device architectures and achieve optimum power and performance for memory elements. Design and technology co-optimization, or DTCO, utilizing both TCAD and EDA solutions to enable designing optimum memory elements is an important stepping stone for many leading-edge ICs in this market, and we provide a targeted DTCO solution for the memory market.

Display Market

With the growth in adoption of mobile electronics such as smartphones, smart watches, wearables and VR, gaming, flat-screen TVs, and more, we believe semiconductors used in display technologies are of increasing importance. According to Allied Market Research, the global display market was valued at $124.1 billion in 2022 and is projected to reach $242.1 billion by 2032, representing a CAGR of 6.8% from 2023 to 2032. Display manufacturers are continuing to make large investments in OLED and AMOLED, as well as new technologies such as quantum dot-LED and MicroLED. At the same time, well-established display technologies, such as LCD, are evolving and improving. Industry adoption of photonics materials, including waveguides and photo detectors, is increasing. These trends are driving large changes in materials and fabrication methods for displays.

Our customers' display development teams use our integrated TCAD solutions with our Analog/Custom design suites to analyze, understand and optimize pixel performance. Our device modeling tools help our customers' display designers to generate accurate models of pixels, which enables them to simulate the correct behavior of displays. Our circuit simulation tool uses advanced modeling of devices to capture the capacity of the given circuit(s), with capacity to handle millions of thin-film transistors, or TFTs. Our Analog/Custom design solution provides powerful pixel array

placement and routing capabilities that our customers use to produce circuit layouts that match the customer's manufacturing requirements and ensure design quality.

Through deep collaborations with industry leaders and academia in the display market, we have developed highly differentiated display design solutions spanning TCAD, circuit simulation and Analog/Custom design. We believe the completeness of our display solution is the reason it is deployed at 8 of the top 10 largest display manufacturers by revenue from the fourth quarter of 2022 to the third quarter of 2023 according to Display Supply Chain Consulting.

Automotive Market

The semiconductor content in the automotive market is rapidly growing and evolving, driven by vehicle electrification, advances in electronic control, vehicle connectivity to the internet and autonomous driving. According to Allied Market Research, these innovations are expected to lead to significant increases in the amount spent on semiconductor content in electrification of cars, from $59.7 billion in 2022 to a projected $153.9 billion by 2032, representing a CAGR of 10.1% from 2023 to 2032.

Power devices are at the heart of the electric vehicle revolution, from charging stations to vehicle drivetrain electronics. The new requirements of the automotive market are driving the increasing adoption of different kinds of semiconductor materials such as SiC, GaN and other wide bandgap materials to replace traditional silicon in high-voltage power devices. Companies designing or manufacturing SiC or GaN devices for the power device market can use TCAD simulations as part of their research and development efforts to understand their devices in detail and in turn use that understanding to improve performance, manufacturing yield and reliability. Simulation replaces design of experiments and enables flexibility of foundry selection by reducing costly and time intensive physical trial and error cycles.

In addition, electrification and advanced controls in new automobiles are increasing the number of conventional (silicon-based) semiconductor devices. Desire for increasing time-to-market and engineering efficiencies pushes designers towards using and reusing SIP.

We are part of the existing ecosystems providing silicon-proven SIP to Tier 1 (module providers) and Tier 2 providers (IC providers) to automotive, truck, motorcycle and E-bike OEMs. We can also provide specialized EDA solutions and foundational SIPs that our customers integrate into their IC design flow. The barrier to entry in the automotive market is high due to its requirement for innovative technologies that can include complex structures and high initial costs. Leveraging our silicon-proven SIPs enables customers to develop their solutions with functional interoperability and limit the risk of costly mistakes that may require redesign.

Internet of Things Market

The IoT market is expected to continue to grow as the industry is still in the early stage. According to Allied Market Research, the global IoT market is estimated to grow at a 19% CAGR from 2022 to 2031 and is projected to reach $413.7 billion by 2031. All IoT devices require a complex SoC to perform sensing, collecting data, processing data and connecting to other IoT devices or a central server or cloud through several wireless solutions. At the edge of IoT, new devices with ultra-low energy demands will be needed to harvest sensor data across a wide variety of environments. Such SoC architectures require advanced low power microprocessors, low power IO, compact bus fabrics that connect SIP blocks, and various types of embedded memories including low power, compact SRAM standards. We provide a comprehensive portfolio of SIPs and tools for the IoT market, including Standard Cell IP, library creation and characterization tools, ultra-low power SRAM compilers, connectivity IOs, microprocessor SIPs, AMBA SIP Cores and Subsystem.

5G/6G and Mobile Communications Markets

The semiconductor market for mobile phones is expected to continue its rapid transition, with the continuing development from predominantly 4G phones to 5G/6G phones. As the wireless market continues to migrate to 5G/6G, high-bandwidth, low latency networks are expected to emerge among a massive number of connected devices and sensors, accompanied by an equally sophisticated chip design process. IDC estimates that mobile phone semiconductor revenue will reach $191.9 billion in 2026, representing a CAGR of 4.0% from 2021 to 2026, and we believe the shift to 5G/6G will increase demand within our industry due to the complex nature and design cycle of 5G/6G chips. The adoption of more advanced process technology nodes for 5G mobile devices means longer circuit simulation times due to substantial increases in unwanted electrical components (parasitics) in nanometer geometries. We believe our parasitic reduction and analysis tools are unique in the market, complementing existing tool flows. Our latest parasitic reduction and analysis tools allow our customers' design teams to accelerate circuit simulation times substantially, as compared to our earlier offerings, and perform fast root cause analyses. The development of RF Front-End Modules, or FEM, Low-Noise Amplifiers, or LNAs, Power Amplifiers, or PAs, and RF switches for millimeter wave, or mmW, and 5G applications can result in many silicon iterations, due to poor correlation between simulation and silicon measurements caused by substrate effects. We provide solutions for RF

circuit designers to extract substrate parasitics, enabling designers to model these effects accurately and easily with minimal impact on simulation times. These solutions are complemented by our circuit simulation tool for RF, Physical Verification tools and our full analog/custom flow for analog block creation.

High Performance Computing Market

Today, HPC applications involve customized architectures, which in turn, may require specialized circuit and memory elements to implement. Quantum and photonics computing further apply new technologies to address application specific challenges. All these require complex modeling simulations. Our foundational SIPs, memory compilers and library creation EDA tools have been adopted by our customers in HPC applications, which we believe allow our customers to gain a performance edge by using specialized circuits. We also provide modeling services and circuit libraries for cryogenic temperatures used in quantum computing and our TCAD software is being used to design photonics devices.

We believe there will be significant demand for our solutions that meet the performance, power and latency requirements while reducing overall costs. We believe DTCO utilizing both TCAD and EDA to address the complexity of design in the HPC market is now used by many leading-edge ICs, and we offer a complete suite of DTCO flow optimization solutions to address such needs. According to Allied Market Research, the global HPC chipset market was valued at $5.7 billion in 2022 and is projected to reach $29.4 billion by 2032, representing a CAGR of 17.9% from 2023 to 2032.

Industry Challenges

Design and manufacturing of SoCs is a time intensive and costly process. Complex AI-driven high performance computing, IoT class of SoCs, high performance memories, and GPU class processors cost millions to billions of dollars to develop. The development, qualification and manufacturing cycle for processors, memories and SoCs varies by market and may require lengthy development times. Similarly designing power systems utilizing new materials such as GaN and SiC adds additional costs, time to market and complexity to the systems that enable AI. The main challenges for the industry include:

- Rapid increase of design complexity for ICs and SoCs.

Driven by market demands for more functionality, performance, and lower cost, IC design (including memory systems and power systems) and SoC design organizations are faced with designing and developing more complex designs with every new generation of their products. Today, many multiprocessor ICs have gate complexities of billions of gates, which were not possible to design a decade ago. One key factor that has historically driven IC and SoC design complexity is the need to scale and reduce transistor sizes over time, as predicted by Moore's law over three decades ago. As designs approach below 7nm and down to 3nm process technologies, IC/SoC complexity and differentiation is increasingly handled through product-development and design tools rather than manufacturing. Many IC and SoC makers are outsourcing IC manufacturing to foundries, and product differentiation is achieved during design through utilization of EDA tools, TCAD tools and SIPs.

We seek to reduce design complexity of ICs and SoCs by providing silicon-proven, re-useable SIPs, EDA tools for automatic generation of low power and small area SIPs, design management tools for revision-controlled collaboration among the team, and EDA tools enabling fast simulation of chips and automated layout generation and verification.

- Rapid increase of design cost and time for ICs and SoCs.

Generally, as design complexity increases so to do design costs and time to get the product to market. The main factors driving development cost and time are associated with the number of personnel required to design, the verification of the design, and the test and validation of the design, as well as the cost of tools for design, verification, test and validation, and the associated manufacturing costs of masks, wafers and production costs, including testing. In general, the more complex the IC, the more personnel and more tools per personnel are needed, hence increasing the cost of design. Many new GPU processors require thousands of engineers to design over many years.

- Evolving manufacturing complexity processes, supply chains and yields.

The semiconductor industry has made great strides in progressing semiconductor innovation. Researchers have consistently kept pace with Moore's Law where the latest IC process technology nodes are at 7nm, 5nm, 3nm and 2nm. The industry has accomplished this by experimenting with variations of semiconductor materials and corresponding processes to enable high-volume production for devices made of SiC and GaN. We seek to provide for acceptable manufacturing yield through our TCAD and EDA tools, which utilize machine learning and computer experiments to simulate processes with different materials without having to go through the costly and lengthy fabrication processes. We believe that our tools allow fast convergence on candidate materials and processes to

meet market requirements by replacing fabrication and wafer level yield design of experiments with simulation driven manufacturing and yield enhancements.

As a result of such pervasive and challenging requirements, companies must allocate significant time and resources towards the design cycle. Engineers have, in turn, come to rely on powerful software tools to simulate, optimize, approve, plan, validate and verify all aspects of the design process, thereby maximizing reliability, agility and performance at reduced cost. We believe this strong value proposition will continue to drive demand for our design automation software tools.

Our Solutions and Competitive Strengths

We are a provider of TCAD, EDA and SIP solutions. We have decades of expertise developing the “technology behind the chip” and providing solutions that span from atoms to systems, from providing software for the atomic level simulation of semiconductor and photonics material for devices, to providing software and SIP for the design and analysis of circuits and system level solutions. We are not part of the supply chain for semiconductor manufacturing process, rather part of the value chain, the process of enhancing the value of the products moving along the supply chain, particularly in the early stages of R&D and design of semiconductors. Our primary strengths include:

- *Enabling companies to accelerate IC and photonics designs to efficiently optimize devices.* Companies use TCAD solutions to model the fabrication process and devices used in semiconductors including low-geometry CMOS, memory and photonics, thus potentially accelerating the time to develop technology and ramping to yield, reducing the need to run wafers, and optimizing devices, all of which can contribute to lower development costs. We develop our EDA design and simulation solutions and SIP to be tailored to specific technologies and market segments, to enhance design flows that optimize Power, Performance and Area-Cost, or PPA. For example, our Victory process and Victory device along with simulation, machine learning and AI is capable of DTCO flow that can optimize manufacturing of memory devices, low-geometry CMOS, power devices and photonics devices such as image sensors, quantum dots, micro-LEDs and displays.
- *Enabling growth industries like AI, automotive, and high-performance computing.* Our solutions enable our customers’ memory devices, power devices and display technologies to play a crucial role in high performance advanced settings in exciting and growing industries. Our customers’ memory devices help computers and servers store and access data quickly, which is crucial for AI and other advanced applications. Our customers’ power devices are used in designing power systems for things like computers, cars, and servers, enabling them to run smoothly and efficiently. Our display technologies make it easier to interact with technologies like AI, virtual reality (VR), and augmented reality (AR), improving user experiences.
- *Early mover advantage in vertical markets.* For decades we have focused on vertical markets, such as display and power, and have developed industrial and academic partnerships that enable our agile and fast development of solutions aligned with market needs, such as our TCAD and EDA software solutions tailored for use in the display and power markets. The lessons learned in these markets, and the significant costs in developing our software solutions, have not only prepared us for tailoring solutions for new vertical markets including the photonics and memory markets, but have created a significant barrier for new market entrants looking to compete with our products.
- *Leading point tools complement existing chip design flows.* Point tools offer the capability of optimizing very specific aspects in a design. These capabilities are often included as features in other design tools; by offering them as stand-alone capabilities to be integrated in any design flow, we believe we can extract more value from these capabilities. They include Jivaro (parasitic reduction, often included in circuit simulation), Viso (parasitics analysis, often included in extraction), and Varman (statistical variation analysis, used in advanced technologies for cell and memory characterization).
- *Production-ready, also known as silicon-proven, SIP for SoC design.* The SIP market continues to be the fastest growing segment of the overall EDA market. A key factor in reducing our customers’ design complexity is our ability to provide production-ready SIP to our customers. We provide production-ready SIP to our customers, including standard cells, memory and I/O SIP that is developed in-house. In addition, we provide SIP and design management tools that enable SIP validation at SoC level, potentially streamlining design workflows.
- *Development and support of our customers’ specific needs.* Our size and focus on specific market segments allow us to develop highly agile solutions and to work with our customers with a goal of developing solutions that meet their specific needs. Our field support engineers interact strongly with our development team to facilitate competent, timely support. Through our collaboration with our academic partners such as Purdue University and Christian Doppler Labs at the Vienna University of Technology, our TCAD and EDA tools are made ready for the next generation of processes, materials and systems.
- *Interoperable product Portfolio among TCAD, EDA and SIP.* Our tools have compatible databases across all of our products for seamless scaling of customer designs. Our product interoperability allows our customers to extend select competitors’ tools to aid our customers in choosing their preferred tools for any given design

step. For example, our customers can use our simulation tools and parasitic reduction tools through the graphical user interface or menu pull downs built into our competitors' tools.

- *Cost-effective end-to-end solutions.* We offer complete solutions for device characterization, compact model development and circuit simulation; analog custom design, including schematics, layout, extraction and design rule check, or DRC, and process and device TCAD. We believe that our software solution pricing is competitive, which is derived from factors such as costs associated with research and development, inflation, licenses mix, number of licenses per product, and number of years per TBL, as well as required license maintenance and services. Furthermore, our solutions are largely self-sufficient in that no third-party tools are necessary to address the end-to-end tasks preformed. Our atoms to systems and interoperable solutions enable customers to start their designs from concept and take them to manufacture ready and verified complete design. For example, customers can simulate a new device technology at the atomic level (e.g., nanowire and nanosheet) using our Victory Atomistic TCAD, which generates accurate models that are handed off to our device simulators such as SmartSpice, while larger circuits generate block level SIP with our analog custom suite of tools (Gateway, Expert, SmartSpice, Smart LV/DRC, Hipex, Jivaro and Varman) verified at the SoC level for manufacturing.

Based on a report conducted by Electronic System Design Alliance, in 2022 we ranked second worldwide in the TCAD market based on revenue. Our solutions, many of which can be used in tandem with our competitors' tools, have been adopted by some of the leading power devices and display providers. These customers use our design software to address certain design challenges. We believe that our positions in the TCAD and power devices and displays markets are strengthened by our EDA product line capabilities. For example, our display simulation models and features help us differentiate when we combine EDA with TCAD. We believe that we have a competitive advantage in these markets in part due to our investment in advanced semiconductor and photonics TCAD solutions, including investments in atomistic simulations, process etch, process deposition and design of experiments, or DOE, that are AI driven. We also believe that our academic partnerships with key research universities, including Purdue University, the University of Vienna and Stanford University, who have focused TCAD related studies, gives us a competitive advantage relative to peer companies. Lastly, we believe that we differentiate our products from our competitors' products by providing solutions that address specific customer needs and requirements in the TCAD and displays and power devices markets.

We believe that our agility and synergies among product lines play a crucial role in competing in EDA. For example, our circuit simulator offers capabilities for the display market, such as a differentiated model for Thin Film Transistors (a device extensively used in displays), and hysteresis and stress simulation features. Customers using our TCAD products can adopt our EDA products and TCAD simulation, device modeling (UTMOST product and services) and circuit simulation (SmartSpice) form a natural combination. We have also developed software that certain of our customers have labelled as having best-in-class point tools capabilities. To our knowledge, standalone RC reduction (Jivaro) is not offered by competitors and is included in products like circuit simulation. We believe that we have a strong market position in this market niche and that our solution is competitive to other solutions in the market. Also, in the highly competitive analog custom design market, particularly for more mature technologies, we believe that our willingness and capability of developing process design kits, or PDKs, for specific technologies has the potential to give us a natural advantage.

We believe that we provide competitive SIP solutions targeting certain end markets. Our SIP solutions are qualified and silicon-proven at certain foundries, which we believe enables our customers using such foundries to lower their cost of development and reduce their time to market compared to SIP solutions that are not silicon-proven at such foundries.

To our knowledge, we are one of only two EDA/TCAD companies in the world that provide SIP to their customers. Unlike the non-EDA SIP companies, as an EDA company, we have open access to our own Analog Custom Design flow EDA software that we use for designing SIP for our customers, hence not incurring the EDA tool costs that non-EDA SIP providers incur. Further, we have developed SIP tools that not only automate generation and characterization of some of our SIPs, but also have SIP management tools as our product that we utilize to manage our SIP and customer SIPs.

Growth Strategy

We believe that as the demands of semiconductor technology continue to grow and increase in complexity, we are favorably positioned to deliver value to our customers with our TCAD, EDA and SIP solutions. To further our long-term growth and increase our market share, we have made initial investments in the following areas:

- *Focus on large, growing markets where we have cemented ourselves as a reliable solutions provider.* We seek to continue and expand our presence in the display, automotive semiconductor, memory device and IoT

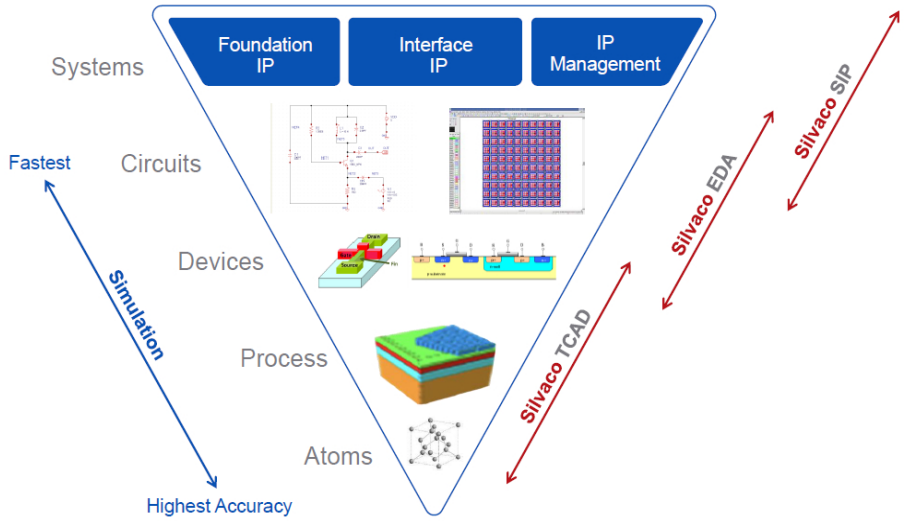
markets. The display, automotive semiconductor, memory, HPC and IoT markets are projected to grow at a CAGR of 6.8%, 10.1%, 5.9%, 17.9% and 18.6%, respectively (for the respective periods described elsewhere in this prospectus). We believe our current position will allow us to capitalize on the growth of our existing customers in these markets. Proof of the point is the fact that our revenue and bookings have grown in these markets with existing and new customers. For example, our revenue was $46.5 million and $54.2 million for the years ended December 31, 2022 and 2023, respectively. Our bookings were $49.7 million and $58.1 million, for the years ended December 31, 2022 and 2023, respectively.

- *By increasing our Research and Development expenditures, we plan to expand our presence in established market segments.* We plan to expand our addressable market in established market segments, which include low-geometry CMOS technology, new specialized SIP, fabrication technology process co-optimization, and photonics. Historically we have not participated materially in these markets. We have established beta and strategic customers and generated revenue in 2022 and 2023 from the beta customers in our target markets to further our expansion in these market segments. Many of our strategic customers engage in advanced research and development projects with us, with a goal of further developing their product simulation capabilities. We believe that their participation in verification and validation of our newly developed products has the potential to enhance our product quality and market testing.
- *Continue our history of strategic acquisitions to accelerate growth and expand our market footprint.* We have a strong history of acquisitions that have enabled our research and development endeavors and target to realize revenue from new product introductions from such acquisitions beginning in the second-year post-acquisition. Since 2015, we have acquired ten companies that have enhanced and expanded our product portfolio. For example, we acquired PolytEDA in 2021, which expanded our capabilities for rapid physical verification of IC designs prior to mask creation and manufacturing and cloud enablement of EDA tools. We also acquired Dolphin's memory compiler team and select SIPs in 2020. This acquisition added memory and memory compiler capabilities to our SIP. Certain of our customers who require embedded memories in their IC and SoC designs are taking advantage of our low power and small area embedded memory. Historically, we have focused on acquisitions that provide us with technology (e.g., Purdue Atomics simulation tools, commercialized under our Victory Atomistic tools), technical talent, and revenue in new markets. Examples of such acquisitions are EdXact in France and Invarian in the United States, which provided us with additional talent pools as well as tools, such as Jivaro and Invar, that we successfully introduced to market. We intend to continue to target acquisitions that allow us to expand our solutions portfolio to better service our customers' needs.
- *Leverage our technology in TCAD, EDA, SIP and SIP management software.* We plan to continue to invest in the technology that differentiates us and where we can establish or expand our leadership position, such as TCAD for power devices, display and photonics, simulation of large panels with complex device models, parasitic analysis and reduction, SIP management and fingerprinting, device characterization tools and services, and development of additional SIP.
- *Optimize our competitive advantage by addressing unique customer needs.* We pride ourselves on research and development agility, allowing us to design capabilities specific to customers' requirements and, where appropriate, integrate those capabilities into our software solutions. We also offer cost-effective complete solutions due to the synergies across our product portfolio.
- *Focus on a portfolio approach to the licensing and sale of our software platform.* We seek to differentiate ourselves through the breadth of our software and SIP offerings, addressing the full design cycle needs of our customers across applications and industries. In 2022, we began engaging with beta customers, and in 2023 we generated revenue from such customers on our newly planned software platforms.
- *Expand our customer base through increased investment in sales and marketing.* We believe our serviceable market is under penetrated and that we can expand our customer base by increasing our marketing and sales resources, particularly in growing segments such as automotive and IoT. Our strategic accounts, which we define as customers that achieved bookings in excess of an aggregate of $1.0 million over the three-year period ended December 31, 2023, contributed $23.0 million of our total bookings in 2023, and the bookings received from strategic accounts grew at a 32% CAGR over the past two years. In addition, we gained 14 new customers in the power end-market and four new customers in the memory end-market in 2023.
- *Establish, maintain and expand relationships with key technology providers and academic partners.* We maintain successful relationships with SIP providers, foundries, design service companies, EDA companies, our commercial customers and academia. These relationships range from seminal technology work with universities to distribution and maintenance of SIP. For example, our master license agreement with the Purdue Research Foundation, or Purdue, allows us to commercialize, make, sell, use, distribute, modify and create derivative works of certain atomistic simulation technologies developed under our strategic alliance agreement with Purdue. We plan to continue to expand our ecosystem to maximize our reach, integrate into established flows and offer world-class solutions.

Products and Technology

We are a provider of TCAD software, EDA software and SIP, and also provide general engineering and research support to serve our target markets. Within our TCAD, EDA and SIP product lines, we offer a multitude of products and offerings to efficiently develop new semiconductor processes and devices. By employing our visualization and simulation tools, users are able to "see" inside the device during the production and design phases. Our focus is on the development of flexible software solutions that enable users to analyze electronics and optics designs directly on their desktops, laptops, and servers, providing a common platform for fast, efficient, and cost-conscious product development. This is done from design concept to final stages of verification and validation of design with hand off support to manufacturing.

We have regularly developed and delivered updates that provide product enhancements to our customers. We have a demonstrated history and commitment to remaining at the forefront of innovation for semiconductor design optimization, simulation, and modeling software. Below are examples of our products and technologies:



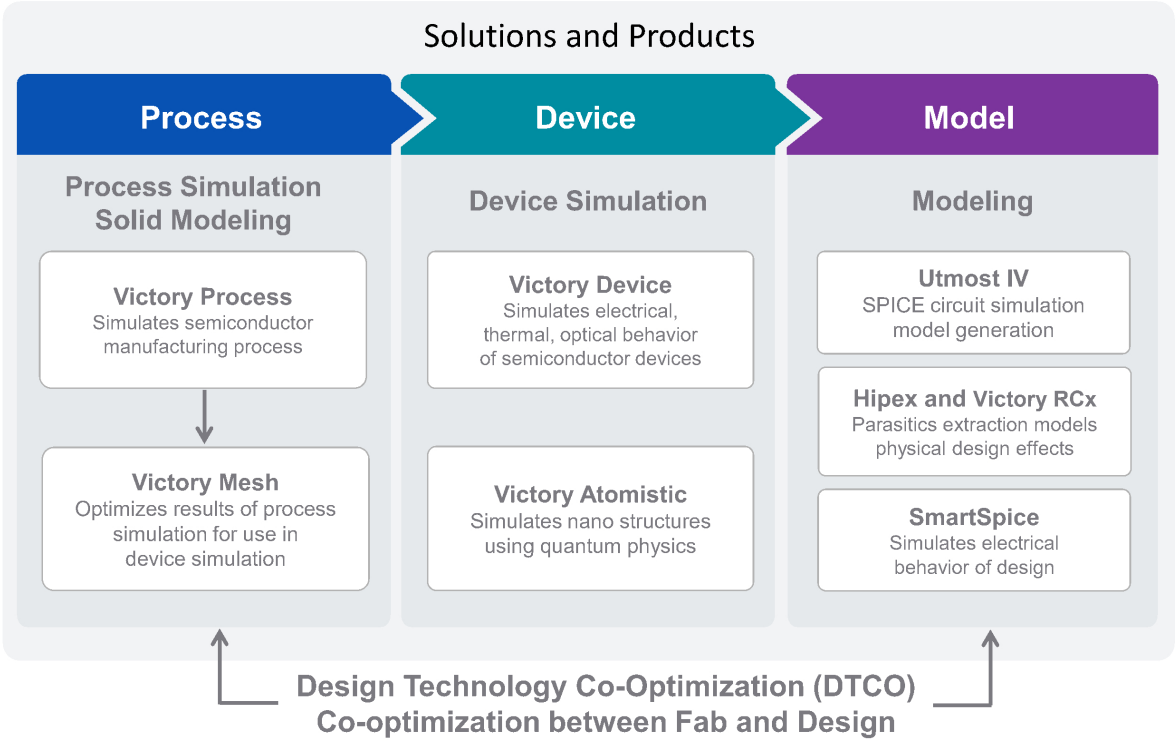
TCAD Solutions and Products

TCAD software solutions, including our offerings, are used to help reduce the time and manufacturing cycles spent to develop semiconductor technologies and help reduce the costs during development cycles. TCAD is part of a DTCO flow that is intended to improve designs across multiple domains (Layout, Process, Device, SPICE and RC extraction). A full TCAD to SPICE flow, in an integrated DTCO environment, helps deliver clear actionable results for circuit design optimization. Typical applications include:

- physical etch and deposition process simulation;
- calibration of doping profiles and MOS/bipolar transistors;
- modeled effects (including self-heating and thermal gradients for power device and TFT);
- photonics simulation for solar cell, CCD, CIS, TFT, LCD and OLED using ray tracing/FDTD/TMM;
- single event effect and total dose simulation; and
- stress simulation.

We also offer TCAD modeling services that provide a solution for customers who have unique semiconductor device modeling requirements, but do not have the time or resources to operate TCAD software in-house. Using TCAD modeling services provides access to our expertise in semiconductor physics and TCAD software operation to help provide a complete, fast and accurate solution. TCAD modeling services deliverables include graphical output (plots of structures and behaviors), structures (TCAD device files and meshes) and device characteristics (electrical, thermal and/or photonics). The graphical results can be delivered through results files and one license of our viewer/plotter tool or final result plots printed by us.

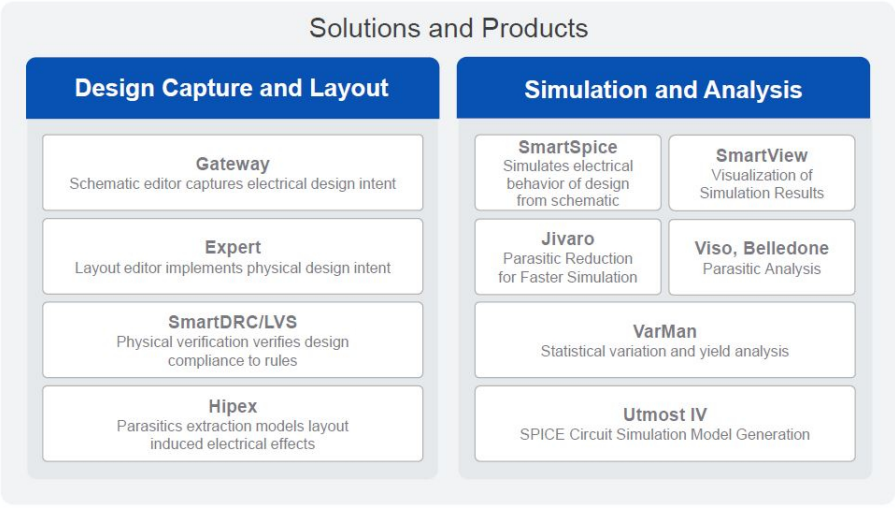
The graphic below shows the three classes of TCAD products we provide, namely Process, Device and modeling. Utilizing all three classes of TCAD products enables our design co-optimization solutions for design and fabrication.



EDA Software and Modeling Services

Our EDA software solutions cover multiple areas of analog/mixed-signal/RF circuit simulation, custom IC CAD and interconnect modeling, including support for CMOS, bipolar, diode, JFET, SOI, TFT, HEMT, IGBT, resistor and capacitor models. We also provide complete SPICE modeling services for the semiconductor industry, ideally suited to either complement in-house SPICE modeling capabilities when time is critical, or to provide complete SPICE modeling services for occasional needs.

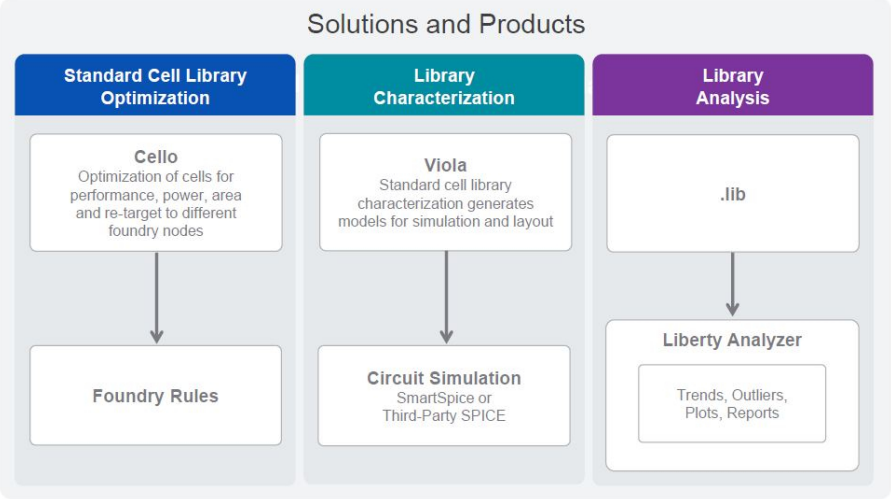
The graphic below shows our EDA products in the design capture and layout and design simulation and analysis classes. We can address specific customer needs by combining any of the products.



SIP and EDA Software and Design Services

We provide software that optimizes and re-targets standard cell libraries. Automated tools improve productivity by automating standard cell library designs that would otherwise need to be done manually, sometimes by tens of designers. In addition, we provide automated standard cell library characterization tools that replace manual and labor-intensive characterization of standard cells.

The graphic below shows our SIP EDA software and solutions enabling foundries, design houses and allowing integration and utilization of our library characterization tools with SmartSpice or third-party SPICE simulators.



We have more than 20 years of experience in developing foundational SIPs in process technology nodes from .35um down to 16nm and have delivered more than 50 standard cell libraries and 96 memory compilers. Our full-featured standard cell libraries have demonstrated maximal density and routing performance. The cell schematic used on more complex cells also provides options for high performance or high-density design optimizations. As a standard feature, all industry standard views (CDL netlist, LEF, GDSII, Liberty, PEX Spice netlist, Verilog, VITAL, EDIF and others) are provided from a consistent database.

Standard cell library development and characterization services, either as a fully independent third-party SIP vendor for foundries or as a partner in the development of specialty libraries, are provided for fabless companies. The most common services provided are:

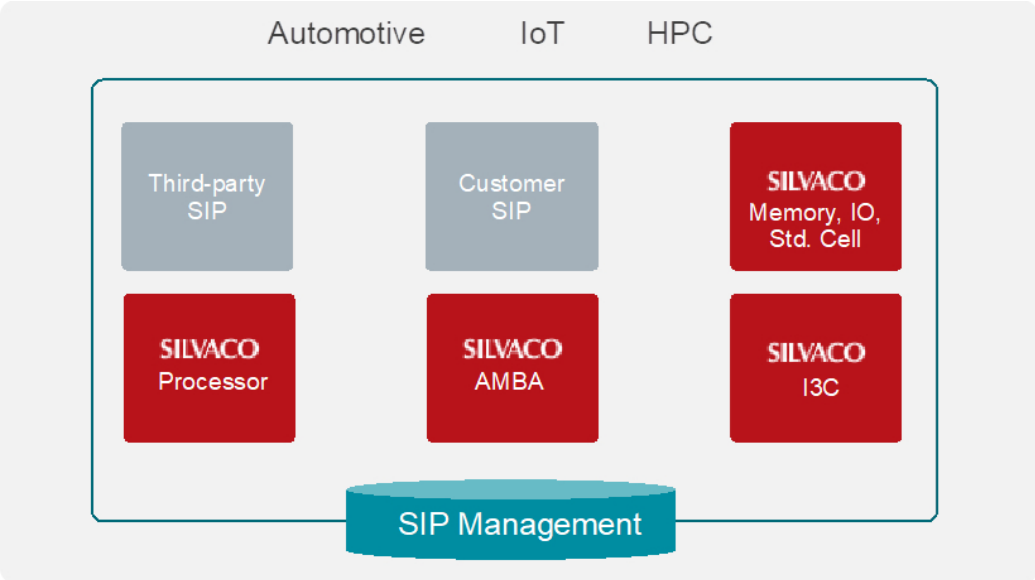
- Complete standard cell library development;
- IP migration to new process;
- Embedded memory compilers such as SRAM, Read Only Memories, or ROM, and Register files both as services and standard products. Our embedded memories span many process technology nodes optimized for speed, power and area;
- Library characterization services; and
- General purpose and custom I/Os as part of our SIP service to our customers.

SIP Management Tools and SIP

SIP and SoC Management Software. Our SIP and SoC Management Software (IP Vault) helps teams of designers to manage (release, revision control and contracts) and collaborate amongst the internal team, the SIP providers, and customers. IP Vault also provides the ability for the team to authenticate SIP blocks from various providers and also authenticate and fingerprint the chip that utilize these SIP blocks to verify that the correct SIP is being used in an SoC.

Silicon-Proven Soft IP Blocks. Our silicon-proven Soft IP blocks are embedded in SoCs and ICs in our targeted markets of automotive, IoT, wireless and High-performance Computing. These SIP blocks are developed internally by our engineers, or in collaboration with our semiconductor foundry partners.

The graphic below shows the SIP management software encompassing all of the SIP designs used in an SoC.



Customers

We provide end-to-end solutions such as software, design IP, and world-class support to a global and diverse customer base of engineers and researchers in both semiconductor companies and academia. We aim to support our customers' use of our products to solve semiconductor design challenges spanning the levels of atoms, devices, and systems. Through decades of collaboration with academia, we have created an end-to-end solution for display visualization and simulated stress-testing coupled with an integrated support system and SIP services. With our combined platform, we believe we can attract new customers, retain existing ones, and create upsell opportunities. As of December 31, 2023, we had over 800 customers that relied on our solutions worldwide, of which over 200 are academic institutions.

As of December 31, 2023, our customers were geographically distributed as follows: 54%in Asia, 29% in North America, and 14% in Europe. During 2022 and 2023, in addition to growth within our existing customer base, we added 60 and 59 net new customers.

Sales and Marketing

We work closely with our customers throughout the semiconductor lifecycle with our solutions, and support offerings to meet their specific and complex needs. We utilize account managers to engage with our customers early in their design-in cycles and collaborate with them throughout the design journey. We rely primarily on direct sales channels across the world and augment our sales efforts with distributors in growth or emerging markets, such as Israel, India and Southeast Asia. To handle the complexities of the industry, we use account managers with specialized knowledge who cover and can speak to all company products. In addition, we rely upon field application engineers for product specialization and sales operations to handle universities and smaller opportunities.

Although the specific terms of our contracts vary from customer to customer, the license agreements are commonly one or three-year commitments. Sales cycles vary depending upon the product and offerings along with the specific needs and complexities of the individual customer. TCAD and EDA opportunities generally have a sales cycle of six to nine months whereas SIP opportunities generally range from three to eight months. Renewal engagement generally starts six to 12 months prior to license expiration.

Our sales and marketing teams have international coverage segmented into three distinct regions: the Americas (USA and Brazil), EMEA and APAC (Japan, China, Korea, Taiwan and Singapore). As of December 31, 2023, our sales and marketing team included 29 regional sales representatives positioned across these geographies. As of December 31, 2023, our sales and marketing management team had an average of over 25 years of sales experience.

Research and Development

We believe that our future growth and acquisition of new customers depends on our ability to introduce enhancements to our existing products and to develop new products for both existing and new markets. As a result, a

material portion of our operating expenses have been allocated towards this effort. Our research and development efforts are focused primarily on TCAD, Analog and Custom Design, Circuit Simulation, and SIP.

We have assembled a core team of experienced engineers and systems designers who conduct research and development activities in the United States, EMEA, and Brazil. As of December 31, 2023, we had 181 engineers worldwide, representing approximately 67% of our total employee base, and approximately 79% of our engineers hold advanced degrees in science or engineering.

We are currently expanding our research and development efforts, with key updates to our product lines, including Victory Process and Device (TCAD), SmartSpice (Circuit Simulation), UTMOST (Modeling), Viso (parasitics Analysis), Jivaro (parasitics Reduction), Varman (Variation Analysis) and Analog Custom Design, or ACD, including Schematics, Layout, Smart DRC, Smart LVS and Extraction. To support our growth, we intend to continue our investments in research and development.

Intellectual Property

Our patents and other legal intellectual property protections are created when we believe we have developed proprietary and unique technologies that may impact our customers' businesses and help differentiate our products. We utilize patents to provide protection for our developed products, helping maintain product differentiation. Currently, our patent portfolio is focused on SIP ("fingerprinting" and "DNA-analysis"), circuit and standard cell design, generation and optimization, cell libraries with a large number of cells, memory cells and arrays, physical verification, simulation of light emitting diodes, or LED, and other related spaces. Our accomplishments of developing our technology and products, and our ability to compete worldwide, is made possible by our commitment to develop and maintain leadership of our products and to stay current with filings to protect our intellectual property.

We rely on patent, copyright, trademark, and trade secret laws, as well as confidentiality and non-disclosure agreements, other contractual protections, and distribution of software licenses only to protect our technologies and proprietary know-how. As of December 31, 2023, we had 19 issued U.S. patents expiring generally between 2028 and 2039, 4 pending U.S. patent applications, 3 issued foreign patents (including 2 French patents and 1 Taiwanese patent) expiring generally between 2032 and 2036, 5 pending foreign patents (including 1 pending Taiwanese application, 2 pending European patent applications, and 2 pending Japanese patent applications) and 2 pending International Patent Cooperation Treaty patent applications. Our issued patents and pending patent applications generally relate to SIP characterization, standard cells, memory, physical verification and LED simulation. As of December 31, 2023, we have obtained registered U.S. federal trademarks for SILVACO, VIRTUAL WAFER FAB, FAB TECHNOLOGY CO-OPTIMIZATION (FTCO) and IPEXTREME (Stylized).

Competition

Within the TCAD software segment, we compete against several other vendors, including Synopsys, Ansys, Inc. and Coventor, Inc., a Lam Research Company. We compete in the industry based on the market segments we serve, technology leadership, product efficiency, ease of integration, ease of use, payment structures, customer support, and time to market. Several factors drive TCAD customers' buying decisions, and we compete across all customer needs in order to capture a portion of our customers' budgets. We believe that the market for TCAD software is highly consolidated, with various inorganic growth strategies, such as mergers and acquisitions, partnerships, and collaboration driving this consolidation.

The EDA industry is highly competitive. We compete against other EDA vendors and against our customers' own design tools and internal abilities. We compete in the industry primarily on principles of technology leadership, product quality and efficiency, ease of integration, license terms, payment structures, and customer support. Major players in the EDA sector include Synopsys, Cadence and Siemens EDA. The industry also features numerous smaller providers of EDA software and services that often focus on specific market niches and phases within the design process.

In SIP, we compete with solutions developed internally by our SoC customers, other third-party providers, and other smaller providers. The largest market segments of SIP such as processors and I/O require large development budgets and are dominated by large players such as Arm Limited and Synopsys. In other segments SIP deployment competes mainly against internally developed solutions, and competitors often consist of smaller companies that provide targeted, specific product solutions rather than comprehensive solutions. In the SIP segment, we compete based on PPA, idle power consumption, data movement performance such as frequency, latency, bandwidth, and time to market. Major players in this industry include Arm Limited, Synopsys, Cadence, and CEVA, Inc.

Agreement with NXP

On September 1, 2016, we entered into a Technology License and Distribution Agreement, as amended, or the Agreement, with NXP, whereby we assumed the rights and obligations of IPextreme, Inc., our predecessor to the Agreement. Pursuant to the Agreement, NXP granted us a limited, non-exclusive, non-transferable, worldwide license to use, perform, display, copy, reproduce, modify, adapt, alter, customize, translate or otherwise create derivative works based on certain NXP technology to develop and make licensed designs for our own account, and to market, demonstrate, promote, sell, offer to sell, distribute and otherwise dispose of such licensed designs, directly or indirectly, to our customers. The Agreement was amended on October 18, 2016 to provide for the transfer of certain technical information regarding I3C Controller technology to us. The Agreement was amended again on November 10, 2018 to provide for the transfer of certain technical information regarding the LinFlexD Controller to us, and amended again on March 22, 2022 to provide for the transfer of certain technical information regarding the e200z760 core technology to us. NXP has the right to terminate the Agreement by notifying us in writing if (i) we fail to make a payment within 30 days of the date that payment was due; (ii) we are in breach of the Agreement and the breach is not capable of being remedied, such breach, if capable of remedy, is not remedied within 30 days after written notice of such breach, or we are otherwise in default; (iii) one of our creditors take possession of our assets; (iv) a voluntary or involuntary petition in bankruptcy or winding up is filed; (v) any proceeding in insolvency or bankruptcy are instituted against us; (vi) a trustee or receiver is appointed over us; (vii) any assignment is made for the benefit of our creditors; or (viii) we have a change of control (as defined in the Agreement). The Agreement provides that upon termination, all licenses will end, payments owed to NXP will become immediately due and payable, and we will immediately return or destroy all technology and confidential information furnished under the Agreement. The Agreement expired on October 30, 2023. On April 11, 2024, we amended the Agreement to extend its term for an additional five years.

Government Regulation

We face increasingly stringent and evolving regulatory challenges. For example, we are subject to anti-corruption, anti-bribery, anti-money laundering, and similar laws in the United States and other countries in which we conduct activities, including the FCPA, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Travel Act, the USA PATRIOT Act, and the United Kingdom Bribery Act 2010, which generally prohibit companies and their employees, agents, intermediaries and other third parties from directly or indirectly promising, authorizing, making or offering improper payments or other benefits to government officials and others in the private sector. Noncompliance with these regulations could subject us to investigations, severe criminal or civil sanctions, settlements, prosecution, loss of export privileges, other enforcement actions, disgorgement of profits, significant fines, damages, other civil and criminal penalties or injunctions, whistleblower complaints, adverse media coverage and other consequences. We are also subject to governmental export and import controls that could impair our ability to compete in international markets due to licensing requirements and subject us to liability if we are not in compliance with applicable laws. For example, certain of our software solutions are subject to U.S. export controls and sanctions, including the Export Administration Regulations, U.S. Customs regulations, and the economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Control, which may limit our ability to export our software solutions and technology or may require export authorizations and conditions prior to export. We regularly engage with outside experts and review our internal compliance related to such U.S. export controls laws, regulations and sanctions programs and have filed certain voluntary disclosures related to potential violations of such U.S. export control laws and regulations and sanctions programs. Such voluntary disclosures remain pending and if an enforcement action is brought against us in relation to such potential violations, such actions could result in the imposition of significant penalties against us. Furthermore, because we may process personal data in the ordinary course of our business we are, or may become, subject to numerous data privacy and security obligations, including federal, state, local, and foreign laws, regulations, guidance, and industry standards related to data privacy and security, including, without limitation, the EU GDPR and the UK GDPR, the CCPA and other U.S. state laws. These privacy and security laws may increase our compliance obligations and exposure for any noncompliance. See the section titled "Risk Factors—Risks Related to Legal, Regulatory, Accounting and Tax Matters" for additional information about the laws and regulations to which we are or may become subject and about the risks to our business associated with such laws and regulations.

Employees and Human Capital Resources

As of December 31, 2023, we had 267 employees worldwide, including 93 full-time equivalent employees located in the United States, consisting of 46 in research and development, 19 in sales and marketing, and 28 in general and administrative. We consider relations with our employees to be good and have never experienced a work stoppage. None of our employees are either represented by a labor union or subject to a collective bargaining agreement.

Facilities

Our principal executive offices are located in a leased facility in Santa Clara, California, consisting of approximately 11,118 square feet of office space under a lease that expires in March 2025. This facility accommodates our principal engineering, sales, marketing, operations, finance, and administrative activities. We also lease offices in China, France, Japan, Korea, Singapore, Taiwan, Ukraine, the United Kingdom and Georgia, U.S.A. We believe that our facilities are generally sufficient to meet our current needs and that, if we require additional space, we will be able to obtain additional facilities on commercially reasonable terms.

Legal Proceedings

From time to time, we may be subject to legal proceedings in the ordinary course of our business. We are not currently a party to any proceedings that we believe will have, individually or in the aggregate, a material adverse effect on our business. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors. For more information regarding our current legal proceedings, see "Risk Factors—Risks Related to Legal, Regulatory, Accounting and Tax Matters—Pending or future investigations or litigation could have a material adverse effect on our results of operations and our stock price", Refer to note 14 to our consolidated financial statements as of, and for the years ended, December 31, 2022 and 2023 appearing elsewhere in this prospectus.

MANAGEMENT

Executive Officers and Directors

The following table sets forth information regarding our executive officers and directors as of March 31, 2024:

Name	Age	Position
Executive Officers		
Dr. Babak A. Taheri	62	Chief Executive Officer and Director
Ryan Benton	53	Chief Financial Officer
Dr. Raul Camposano	69	Chief Technology Officer
Dr. Eric Guichard	56	Senior Vice President and General Manager of TCAD
Non-Employee Directors		
Katherine S. Ngai-Pesic[1]	74	Chair of the Board and Director
Dr. Hau L. Lee[1]	71	Lead Independent Director
Anita Ganti[2]	52	Director
William H. Molloie, Jr.[3]	59	Director
Anthony K. K. Ngai[4]	42	Director
Dr. Walden C. Rhines[3]	77	Director
Jodi L. Shelton[1]	59	Director

(1) Member of the compensation committee and the nominating and corporate governance committee.
(2) Member of the compensation committee.
(3) Member of the audit committee.
(4) Member of the audit committee, compensation committee and the nominating and corporate governance committee.

Executive Officers

Babak A. Taheri, Ph.D., has served as our Chief Executive Officer and member of our board of directors from August 2019 to September 2021 and from November 2021 to present. From October 2018 to August 2019, Dr. Taheri served as our Chief Technology Officer and Executive Vice President of Products. Prior to joining Silvaco, Dr. Taheri served as Chief Executive Officer and President of Integrated Biosensing Technologies (IBT), an advisory and consulting firm, from May 2015 to October 2018. Dr. Taheri has also served on various advisory boards, including MEMS World Summit, a conference for MEMS manufacturers, equipment and material suppliers and research institutes, and Novasentis, Inc., an electromechanical polymer technology development company, and as the advisory board chair of the electrical engineering department at the University of California, Davis. Dr. Taheri also served on the board of directors of Parisi House on The Hill, a residential alcohol and drug non-profit, from June 2021 to May 2022. Dr. Taheri received a B.S. in engineering from San Francisco State University, a M.S. in electrical engineering from San Jose State University and a Ph.D. in biomedical engineering from the University of California, Davis. We believe that Dr. Taheri is qualified to serve on our board of directors due to his experience in the semiconductor and technology industries and extensive leadership, board of director experience, and management experience, including his experience serving as our Chief Executive Officer.

Ryan Benton has served as our Chief Financial Officer since August 2023. Prior to joining Silvaco, Mr. Benton served as Chief Financial Officer and Board Member of Tempo Automation Holdings, Inc. (Nasdaq: TMPO), a software-accelerated electronics manufacturer, from July 2020 to August 2023. Prior to that from September 2018 to July 2020, Mr. Benton served as Chief Financial Officer of Revasum, Inc. From August 2017 to September 2018, Mr. Benton served as Senior Vice President and Chief Financial Officer for BrainChip Holdings Ltd. From 2012 to August 2017, Mr. Benton held multiple positions at Exar Corporation, a fabless semiconductor chip manufacturer (Exar), including as Senior Vice President and Chief Financial Officer from 2012 through 2016 and Chief Executive Officer and Executive Board Member from 2016 until the sale of Exar to Maxlinear, Inc. in May 2017. From 1993 to 2012, Mr. Benton worked at several technology companies including ASMI and eFunds Corporation. Mr. Benton has served on several public company boards, including serving as an Independent Director and Audit Committee Chair. He started his career as an auditor at Arthur Andersen & Company in 1991. Mr. Benton received a B.A. of Business Administration in Accounting from the University of Texas at Austin, and he passed the State of Texas Certified Public Accountancy exam.

Raul Camposano, Ph.D., has served as our Chief Technology Officer since February 2022. Dr. Camposano has served as a partner at Silicon Catalyst LLC, an incubator for semiconductor solutions, since April 2015 and as a lecturer on EDA and Machine Learning Hardware at Stanford University since April 2018. From July 2020 to January 2022, Dr. Camposano served as an advisor to Applied Materials, Inc. (Nasdaq: AMAT), a semiconductor equipment company, or Applied Materials. From August 2015 to July 2020, Dr. Camposano served as Chief Executive Officer of Sage Design Automation, Ltd., a software tools company acquired by Applied Materials in 2020. From November 2010 to May 2014, Dr. Camposano served as Chief Executive Officer of Nimbic, Inc., an EDA cloud company, acquired by Mentor Graphics Corporation in 2014. From January 1994 to January 2007, Dr. Camposano served in various roles at Synopsys (Nasdaq: SNPS), an EDA solutions company, including as its Chief Technology Officer, Senior Vice President, and General Manager. Prior to that, Dr. Camposano served on the board of directors of the German National Research Center for Computer Science, as a professor of computer science at the University of Paderborn, and as a Research Staff Member at the IBM T.J. Watson Research Center. Dr. Camposano received a B.S. and M.S. in electrical engineering from Universidad de Chile and a Ph.D. in computer science from Karlsruhe Institute of Technology. Dr. Camposano was elected as a Fellow of the IEEE in 1999 and to serve on the board of directors of ESDA, the EDA Consortium, in 2012.

Eric Guichard, Ph.D., has served as our Senior Vice President and General Manager of our TCAD division since November 2012, and served as our Vice President of Applications from July 2008 to November 2012. From September 1995 to July 2008, Dr. Guichard served in various roles with Silvaco SA, formerly known as Silvaco Data Systems, one of our wholly-owned subsidiaries, including as an applications engineer. Dr. Guichard received a M.S. in material science and a Ph.D. in semiconductor physics from Instituto Politécnico Nacional de Grenoble, France.

Non-Employee Directors

Katherine S. Ngai-Pesic co-founded Silvaco in 1984 and is our controlling stockholder. Ms. Ngai-Pesic has served as a member of our board of directors since November 2012 and as chair of our board of directors since December 2021. Ms. Ngai-Pesic has also served as a member of our compensation committee since May 2021 and as chair of our compensation committee from December 2021 to September 2022, as chair of our nominating and corporate governance committee from May 2021 to December 2021 and as a member of our nominating and corporate governance committee since December 2021 and as a member of our audit committee from May 2021 to September 2022. In addition, Ms. Ngai-Pesic founded Kipee in March 2001 and has served as its President since inception and founded the Lee Ho Yee Foundation in April 2021 and has served as chair of its board of directors since inception. Mrs. Ngai-Pesic has served as president of the Marriott Business Center HOA Association since October 2012. Ms. Ngai-Pesic also has an endowed associate professorship at Purdue University's Department of Electrical & Computer Engineering. Ms. Ngai-Pesic received a B.S. in chemistry and an M.S. in electrical engineering from Santa Clara University. We believe that Ms. Ngai-Pesic is qualified to serve on our board of directors due to her over 30 years of experience in the semiconductor industry and extensive leadership and management experience.

Hau L. Lee, Ph.D., has served as a member of our board of directors, as our lead independent director and as a member of our compensation committee since September 2022. From September 2002 to May 2023, Dr. Lee served as an Operations, Information and Technology Professor at the Graduate School of Business at Stanford University, where he had been a professor since 1983. Since February 2012, Dr. Lee has also served on the board of directors of TD SYNNEX Corporation (NYSE: SNX), a distributor and solutions aggregator for the IT ecosystem. Since April 2013, Dr. Lee has served as a member of the board of directors and on the audit and compensation committees of Lion Rock Group Limited (HKG: 1127) and its chairman since June 2023. In addition, from March 2014 to July 2020, Dr. Lee served as a member of the board of directors and on the compensation committee of Frontier Services Group (HKG: 0500), a Chinese Africa-focused security, aviation, and logistics company. From June 2014 to September 2020, he served as a member of the board directors and on the compensation committee of Global Brands Group (SEHK: 787), a brand management company, and from February 2019 to September 2022, Dr. Lee served as a member of the board of directors and on the compensation committee of LF Logistics, a logistics solution company. In November 1999, Dr. Lee co-founded DemandTec, Inc., a retail pricing technology company. Dr. Lee received a B.Soc.Sc. degree in Economics and Statistics from the University of Hong Kong, an M.Sc. degree in operational research from the London School of Economics and an M.S. and Ph.D in operations research from the Wharton School of the University of Pennsylvania. We believe that Dr. Lee is qualified to serve on our board of directors due to his extensive experience in the semiconductor industry and extensive leadership experience.

Anita Ganti has served as a member of our board of directors since March 2024 and as the chair of our compensation committee since April 2024. From 2015 to October 2019, Ms. Ganti served as senior vice president of the product engineering services organization of Wipro Limited, a leading global information technology, consulting and business process services company. From 2013 to 2015, she was vice president of global technology at Flex Ltd. (formerly Flextronics), a global electronics manufacturing services company. Since 2020, Ms. Ganti has served as member of the board of director and the audit committee of Power Integrations Inc. (Nasdaq: POWI), which is a fabless semiconductor company. In addition, between June 2023 and April 2024, she served as a director and the

chairperson of the compensation committee and member of the audit committee of Exro Technologies (TSX: EXRO), a power-control electronics company. Ms. Ganti has a B.S. in electrical engineering from Veermata Jijabai Technological Institute in India, an M.S.E.E. from Virginia Polytechnic Institute and State University, and an M.B.A. from the Wharton School, University of Pennsylvania. We believe Ms. Ganti is qualified to serve on our board of directors due to her extensive operating experience and executive leadership and her deep knowledge of the technology industry.

William H. Molloie, Jr. has served as a member of our board of directors and as chair of our audit committee since May 2022. Since March 2021, Mr. Molloie has been a lecturer at the University of California, San Diego Rady School of Management. In July 1986, Mr. Molloie joined PricewaterhouseCoopers, a public accounting firm, and served as an assurance partner from October 1997 to June 2020. Since June 2021, Mr. Molloie has served on the board of directors of WinSanTor Inc., a private clinical-stage biotechnology company, and has served as a member of its compensation committee since April 2022. Mr. Molloie received a B.A. in accounting and finance from Temple University. We believe that Mr. Molloie is qualified to serve on our board of directors due to his financial expertise and his extensive leadership experience in the technology industry.

Anthony K. K. Ngai has served as a member of our board of directors since October 2018 and as a member of our nominating and corporate governance, compensation and audit committees since May 2021. Mr. Ngai has also served as chair of our nominating and corporate governance committee since September 2022 and as chair of our audit committee from November 2021 to April 2022. Since June 2022, Mr. Ngai has served as the Chief Financial Officer of Unience.io, a technology company based in Hong Kong that develops blockchain and Web3 applications and community. From September 2020 to June 2022, Mr. Ngai served as a Partner of Gravity Capital Partners Co. and the Responsible Officer of Avanta Investment Management, an asset management company. Prior to that, Mr. Ngai served as the Head of Credit Trading at J.P. Morgan Asia Pacific, a global financial services firm, from June 2004 to September 2018. In November 2018, Mr. Ngai co-founded JUST FEEL, a nonprofit charity focused on mental health in education. Since July 2020, Mr. Ngai served on the Board of Trustees of the Chinese University of Hong Kong, Chung Chi College. Mr. Ngai received a B.S. in quantitative finance from The Chinese University of Hong Kong and is a graduate of the Program for Management Development from Harvard Business School. We believe that Mr. Ngai is qualified to serve on our board of directors due to his financial expertise and extensive leadership and management experience.

Walden C. Rhines, Ph.D., has served as a member of our board of directors and as a member of our audit committee since September 2022. Since March 2020, Dr. Rhines has served as President and Chief Executive Officer of Cornami, Inc., a fabless semiconductor company. Since 2015, Dr. Rhines has also served as a member of the board of directors and as chair of the compensation committee of Qorvo, Inc. (Nasdaq: QRVO), a semiconductor company, since January 2015 and its chairman since November 2023. He served as a member of the board of directors of PTK Acquisition Corp. (NYSE: PTK), a special purpose acquisition company from July 2020 until September 2021 and served on its audit, nominating and compensation committees. From October 1993 to March 2017, Dr. Rhines served as President and Chief Executive Officer of Mentor Graphics Corporation, an EDA company, and chairman of its board of directors from 2000 until its acquisition by Siemens in March 2017, pursuant to which the company was renamed Mentor Graphics, a Siemens Business. Following the acquisition, Dr. Rhines served as President and Chief Executive Officer of Siemens EDA (formerly Mentor Graphics, a Siemens Business), from March 2017 to October 2018, after which he served as its Chief Executive Officer Emeritus until September 2020. Dr. Rhines received a B.S.E. in metallurgical engineering from the University of Michigan, an M.S. and Ph.D. in materials science and engineering from Stanford University, and a M.B.A. from the Southern Methodist University, Cox School of Business. We believe that Dr. Rhines is qualified to serve on our board of directors due to his experience in the semiconductor and EDA industries, extensive leadership and management experience in technology-based corporations, and experience on public company boards.

Jodi L. Shelton has served as a member of our board of directors and as a member of our nominating and corporate governance committee since September 2022 and our compensation committee since April 2024. Ms. Shelton co-founded Global Semiconductor Alliance, a leading semiconductor industry organization, in June 1994 and has served as its Chief Executive Officer since June 1994. Ms. Shelton also co-founded Shelton Group, a strategic investor relations firm in February 1994 and has served as its chair since February 1994. Since March 2021, Ms. Shelton has also served on the board of directors and as a member of the audit and compensation committees of LF Capital Acquisition Corp (Nasdaq: LFAC), a special purpose acquisition company. Ms. Shelton received a B.S. in political science from San Diego State University and an M.S. in political science from University of Houston. We believe that Ms. Shelton is qualified to serve on our board of directors due to her extensive experience in the semiconductor industry and her experience on various boards.

Familial Relationships

Ms. Ngai-Pesic is the mother of Iliya I. Pesic and aunt of Anthony K. K. Ngai. Ms. Ngai-Pesic and Mr. Ngai are members of our board of directors. Anthony K. K. Ngai and Iliya I. Pesic are first cousins.

Board Composition

Our business and affairs are organized under the direction of our board of directors, which currently consists of eight members. Ms. Ngai-Pesic serves as chair and Dr. Lee serves as our lead independent director of our board of directors. The primary responsibilities of our board of directors are to provide oversight, strategic guidance, counseling, and direction to our management. Our board of directors meets on a regular basis and additionally as required.

In accordance with the terms of our amended and restated charter, which will become effective as of immediately prior to the completion of this offering, our board of directors will be elected annually and will continue to serve as directors until their resignation, removal or successor is duly elected.

Lead Independent Director

Our board of directors has adopted corporate governance guidelines that provide that the board of directors shall appoint an independent director to serve as our lead independent director for so long as we have a non-independent chair. Our board of directors has appointed Dr. Lee to serve as our lead independent director. As lead independent director, Dr. Lee has primary responsibilities to preside over all meetings at which the chair is not present, and serve as a liaison between the chair and the independent directors.

Director Independence and Controlled Company Exemption

We have applied to have our common stock listed on Nasdaq. Under the rules of Nasdaq, a director will only qualify as an "independent director" if that company's board of directors affirmatively determines that such person does not have a relationship with our company that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

Prior to the closing of this offering, our board of directors undertook a review of the independence of our directors and considered whether any director has a material relationship with us that could compromise that director's ability to exercise independent judgment in carrying out that director's responsibilities. Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, our board of directors has determined that none of Dr. Hau L. Lee, Anita Ganti, William H. Molloie, Jr., Anthony K. K. Ngai, Dr. Walden C. Rhines and Jodi L. Shelton, representing six of our eight total directors, has a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is "independent" as that term is defined under Nasdaq's rules. In making these determinations, our board of directors considered the current and prior relationships that each director has with our company and all other facts and circumstances our board of directors deemed relevant in determining their independence, including their beneficial ownership of our capital stock and relationships with certain of our significant stockholders, and the transactions involving them described in the section titled "Certain Relationships and Related Party Transactions."

Immediately upon completion of this offering, we will be a "controlled company" within the meaning of the Nasdaq listings rules. As a result, we qualify for exemptions from certain corporate governance requirements under the rules, including the requirements that within one year of the completion of this offering, we have a board, a compensation committee and a nominating and corporate governance committee that is each composed entirely of independent directors. We intend to make use of these corporate governance requirement exemptions. In addition, we will be subject to the rules of the SEC and Nasdaq relating to the membership, qualifications, and operations of the audit committee (as discussed below), which requires that the audit committee be comprised of at least three members composed entirely of independent directors as of the first anniversary of this offering.

The rules of Nasdaq define a "controlled company" as a company of which more than 50% of the voting power for the election of directors is held by an individual, a group or another company. Upon completion of this offering, the Pesic Family and the SMIK Trust will own approximately 70.1% of our outstanding common stock (approximately 67.9% if the underwriters exercise their option to purchase additional shares in full), representing 70.1% of the voting power of the outstanding common stock (approximately 67.9% if the underwriters exercise their option to purchase additional shares in full). The Pesic Family are the beneficiaries of the SMIK Trust and have no voting and dispositive power over the shares held by the SMIK Trust. Through the Pesic Family and the SMIK Trust's collective control of shares of common stock representing a majority of the votes entitled to be cast in the election of our board of directors, and the Pesic Family and the SMIK Trust being parties to the Stockholders Agreement, the Pesic Family and the SMIK Trust have the ability to control the vote to elect all of our directors. However, if we cease to be a controlled company and

we continue to be listed on Nasdaq, we will be required to comply with the director independence requirements of Nasdaq relating to the board of directors, compensation committee and nominating and corporate governance committee by the date our status as a controlled company changes or within specified transition periods applicable to certain provisions, as the case may be.

Role of Our Board of Directors in Risk Oversight

A function of our board of directors is informed oversight of our risk management process. Our board of directors does not have a standing risk management committee, but rather administers this oversight function directly through our board of directors, as well as through various standing committees of our board of directors that address risks inherent in their respective areas of oversight. In particular, our board of directors is responsible for monitoring and assessing strategic risk exposure and our audit committee has the responsibility to consider and discuss our major financial risk exposures and the steps our management has taken to monitor and control these exposures, including guidelines and policies to govern the process by which risk assessment and management is undertaken. The audit committee also monitors compliance with legal and regulatory requirements. Our compensation committee also assesses and monitors whether our compensation plans, policies and programs comply with applicable legal and regulatory requirements.

Board Committees

Our board of directors has established an audit committee, a compensation committee, and a nominating and corporate governance committee. Our board of directors has adopted a charter for each respective committee in connection with this offering, which complies with the applicable requirements of current Nasdaq rules. We intend to comply with future requirements to the extent they are applicable to us. Following the completion of this offering, copies of the charters for each committee will be available on the investor relations portion of our website.

Audit Committee

Our audit committee consists of William H. Molloie, Jr., Walden C. Rhines and Anthony K. K. Ngai. Our board of directors has affirmatively determined that each of the members of our audit committee satisfies the independence requirements of Nasdaq and Rule 10A-3 under the Exchange Act. Each member of our audit committee meets the financial literacy requirements of the Nasdaq rules and the SEC. In arriving at this determination, our board of directors has examined each audit committee member's scope of experience and the nature of their prior and/or current employment.

William H. Molloie, Jr. serves as the chair of our audit committee. Our board of directors has determined that Mr. Molloie qualifies as an "audit committee financial expert", within the meaning of SEC regulations and meets the financial sophistication requirements of the Nasdaq listing rules. In making this determination, our board has considered Mr. Molloie's formal education and previous experience in financial roles. Both our independent registered public accounting firm and management periodically meet privately with our audit committee.

The functions of this committee include, among other things:

- evaluating the performance, independence and qualifications of our independent auditors and determining whether to retain our existing independent auditors or engage new independent auditors;
- reviewing our financial reporting processes and disclosure controls;
- reviewing and approving the engagement of our independent auditors to perform audit services and any permissible non-audit services;
- reviewing the adequacy and effectiveness of our internal control policies and procedures, including the responsibilities, budget, staffing and effectiveness of our internal audit function;
- reviewing with the independent auditors the annual audit plan, including the scope of audit activities and all critical accounting policies and practices to be used by us;
- obtaining and reviewing at least annually a report by our independent auditors describing the independent auditors' internal quality control procedures and any material issues raised by the most recent internal quality-control review;
- monitoring the rotation of partners of our independent auditors on our engagement team as required by law;
- prior to engagement of any independent auditor, and at least annually thereafter, reviewing relationships that may reasonably be thought to bear on their independence, and assessing and otherwise taking the appropriate action to oversee the independence of our independent auditor;
- reviewing our annual and interim financial statements and reports, including the disclosures contained in "Management's Discussion and Analysis of Financial Condition and Results of Operations," and discussing the statements and reports with our independent auditors and management;

- reviewing with our independent auditors and management significant issues that arise regarding accounting principles and financial statement presentation and matters concerning the scope, adequacy and effectiveness of our financial controls and critical accounting policies;
- reviewing with management and our auditors any earnings announcements and other public announcements regarding material developments;
- establishing procedures for the receipt, retention and treatment of complaints received by us regarding financial controls, accounting, auditing or other matters;
- preparing the report that the SEC requires in our annual proxy statement;
- reviewing and providing oversight of any related person transactions in accordance with our related person transaction policy and reviewing and monitoring compliance with legal and regulatory responsibilities, including our code of business conduct and ethics;
- reviewing our major financial risk exposures, including the guidelines and policies to govern the process by which risk assessment and risk management is implemented; and
- reviewing and evaluating on an annual basis the performance of the audit committee and the audit committee charter.

Compensation Committee

Our compensation committee consists of Anita Ganti, Hau L. Lee, Ms. Ngai-Pesic, Jodi Shelton and Anthony K. K. Ngai. Ms. Ganti serves as the chair of our compensation committee. The functions of this committee include, among other things:

- reviewing and approving the corporate objectives that pertain to the determination of executive compensation;
- reviewing and approving the compensation and other terms of employment of our executive officers (other than for our chief executive officer, which is approved by the Board of Directors);
- reviewing and approving performance goals and objectives relevant to the compensation of our executive officers and assessing their performance against these goals and objectives;
- making recommendations to our board of directors regarding the adoption or amendment of equity and cash incentive plans and approving amendments to such plans to the extent authorized by our board of directors;
- reviewing and making recommendations to our board of directors regarding the type and amount of compensation to be paid or awarded to our non-employee board members;
- reviewing and assessing the independence of compensation consultants, legal counsel and other advisors as required by Section 10C of the Exchange Act;
- administering our equity incentive plans, to the extent such authority is delegated by our board of directors;
- reviewing and approving the terms of any employment agreements, severance arrangements, change in control protections, indemnification agreements and any other material arrangements for our executive officers;
- overseeing the development and implementation of our human capital management, including those policies and strategies regarding recruiting, retention, career development, opportunity, and advancement, and succession, diversity, equity, inclusion, and employment practices;
- reviewing with management our disclosures under the caption “Compensation Discussion and Analysis” in our periodic reports or proxy statements to be filed with the SEC, to the extent such caption is included in any such report or proxy statement;
- preparing an annual report on executive compensation that the SEC requires in our annual proxy statement; and
- reviewing and evaluating on an annual basis the performance of the compensation committee and recommending such changes as deemed necessary with our board of directors.

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee consists of Hau L. Lee, Anthony K. K. Ngai, Ms. Ngai-Pesic, and Jodi L. Shelton. Mr. Ngai serves as the chair of our nominating and corporate governance committee. The functions of this committee include, among other things:

- identifying, reviewing and making recommendations of candidates to serve on our board of directors;
- evaluating the performance of our board of directors, committees of our board of directors and individual directors and determining whether continued service on our board is appropriate;
- evaluating nominations by stockholders of candidates for election to our board of directors;

- evaluating the current size, composition and organization of our board of directors and its committees and making recommendations to our board of directors for approvals;
- developing a set of corporate governance policies and principles and recommending to our board of directors any changes to such policies and principles;
- reviewing issues and developments related to corporate governance and identifying and bringing to the attention of our board of directors current and emerging corporate governance trends;
- overseeing environmental and social governance matters relevant to us; and
- reviewing periodically the nominating and corporate governance committee charter, structure and membership requirements and recommending any proposed changes to our board of directors, including undertaking an annual review of its own performance.

Compensation Committee Interlocks and Insider Participation

Ms. Ngai-Pesic has served as a member of our compensation committee since May 2021 and served as chair of our compensation committee from December 2021 through August 2022. None of our current executive officers currently serve, or have served during the last completed fiscal year, on the compensation committee or board of directors of any other entity that has one or more executive officers serving as a member of our board of directors or compensation committee.

For information regarding agreements between us and Ms. Ngai-Pesic and Anthony K. K. Ngai, see "Certain Relationships and Related Party Transactions—Consulting and Employment Arrangements."

Limitation on Liability and Indemnification of Directors and Officers

Our amended and restated bylaws, which will become effective as of immediately prior to the completion of this offering, limits our directors' liability to the fullest extent permitted under the DGCL. The DGCL provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except for liability:

- for any transaction from which the director derives an improper personal benefit;
- for any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- for any unlawful payment of dividends or redemption or repurchases of shares; or
- for any breach of a director's duty of loyalty to the corporation or its stockholders.

If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of our directors will be eliminated or limited to the fullest extent permitted by the DGCL, as so amended.

Delaware law and our amended and restated bylaws provide that we will, in certain situations, indemnify our directors and officers and may indemnify other employees and other agents, to the fullest extent permitted by law. Any indemnified person is also entitled, subject to certain limitations, to advancement, direct payment or reimbursement of reasonable expenses (including attorneys' fees and disbursements) in advance of the final disposition of the proceeding.

In addition, we have entered into separate indemnification agreements with our directors and officers. These agreements, among other things, require us to indemnify our directors and officers for certain expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or officer in any action or proceeding arising out of their services as one of our directors or officers or any other company or enterprise to which the person provides services at our request.

We maintain a directors' and officers' insurance policy pursuant to which our directors and officers are insured against liability for actions taken in their capacities as directors and officers. We believe that these provisions in our amended and restated certificate of incorporation and amended and restated bylaws and these indemnification agreements are necessary to attract and retain qualified persons as directors and officers.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or control persons, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Code of Business Conduct and Ethics for Employees, Executive Officers, and Directors

We have adopted a Code of Business Conduct and Ethics, or the Code of Conduct, that is applicable to our directors, officers and employees (including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions), which will become effective upon the effectiveness of the

registration statement of which this prospectus forms a part. The Code of Conduct will be available on our website at www.silvaco.com. Information contained on or accessible through our website is not a part of this prospectus, and the inclusion of our website address in this prospectus is an inactive textual reference only. The nominating and corporate governance committee of our board of directors is responsible for overseeing the Code of Conduct and must approve any waivers of the Code of Conduct for employees, executive officers and directors. We expect that any amendments to the Code of Conduct, or any waivers of its requirements, will be disclosed on our website.

Non-Employee Director Compensation

We have paid cash retainers, RSU awards and other compensation to certain members of our board of directors. We have reimbursed and will continue to reimburse all of our non-employee directors for their reasonable travel and out of pocket expenses incurred in attending meetings of our board of directors and committees of our board of directors in accordance with our reimbursement procedures.

The following table presents summary compensation information of our non-employee members of our board of directors for the fiscal year ended December 31, 2023.

Name	Fees Earned or Paid in Cash ($)[1]	RSU Awards ($)[2]	All Other Compensation ($)[3]	Total ($)
Katherine S. Ngai-Pesic	82,500	—	15,000	97,500
Dr. Hau L. Lee	85,000[4]	72,806	—	157,806
Anita Ganti[5]	—	—	—	—
William H. Molloie, Jr.	55,000	106,306	—	161,306
Anthony K. K. Ngai	65,000	229,495	—	294,495
Michael E. Paolucci[6]	38,653	110,340	—	148,993
Iliya I. Pesic[7]	38,409	298,462	53,397	390,268
Dr. Walden C. Rhines	50,000[4]	72,806	—	122,806
Jodi L. Shelton	50,000[4]	72,806	—	122,806

(1) Amounts shown in this column include applicable annual retainers for the individual's service on our board of directors and committees thereof; pro-rated for their length of service for directors who were not directors for the full fiscal year ended December 31, 2023, except for Mr. Pesic. Refer to reference note number 5 to this table.

(2) Amounts shown in this column represent the aggregate grant date fair value of RSU awards made during 2023, calculated in accordance with Accounting Standards Codification, or ASC, Topic 718. See Notes 2 and 11 to the notes to our consolidated financial statements as of, and for the years ended December 31, 2022 and 2023 for a discussion of the relevant assumptions used in calculating these amounts. No non-employee director holds stock options or stock awards other than RSUs. As of December 31, 2023, the aggregate number of outstanding RSUs subject to awards held by each of our non-employee directors are set forth in the table below:

Name	RSU Awards (#)
Katherine S. Ngai-Pesic	—
Dr. Hau L. Lee	13,438
Anita Ganti	—
William H. Molloie, Jr.	16,171
Anthony K. K. Ngai	29,969
Michael E. Paolucci	9,000
Iliya I. Pesic	173,590
Dr. Walden C. Rhines	13,438
Jodi L. Shelton	13,438

(3) Amounts shown in this column represent the amount paid to the director for serving as a consultant to the company in 2023.

(4) Includes annual retainer for the individual's service in our business enhancement and strategy group.

(5) Ms. Ganti was appointed to the board in March of 2024; accordingly no compensation has been reflected for the fiscal year ended December 31, 2023.

(6) Mr. Paolucci resigned as a director on April 11, 2024.

(7) Mr. Pesic resigned as a director on October 4, 2023. On December 1, 2023, we granted Mr. Pesic 5,000 liquidity-contingent RSU awards in connection with his consulting agreement to provide service to the chairperson of the Board. Each RSU award will vest on the first date upon which both the Time-Based Requirement and the Liquidity Event Requirement are satisfied with respect to the award. The Liquidity Event Requirement will be satisfied as to any then-outstanding RSUs on the first to occur of: (1) a change in control event (as defined in the award agreement) or (2) the first sale of common stock pursuant to an underwritten initial public offering, including the consummation of this offering, in either case, within 10 years of the grant date. The Time-Based Requirement will be satisfied on December 1, 2024, subject to Mr. Pesic's continuous service through such date.

Our board of directors approved the following proposed cash compensation, which is based on a review of director compensation at comparable companies in our industry. In addition, our board of directors approved cash compensation for non-employee directors consisting of a $40,000 annual retainer, an additional $30,000 annual retainer for the non-executive chair and for the lead independent director, if any, and the following additional annual retainers for committee service:

Committee	Chair[1]	Member
Compensation Committee	$ 10,000	$ 5,000
Nominating and Corporate Governance Committee	$ 10,000	$ 5,000
Audit Committee	$ 10,000	$ 5,000

(1) Retainer is in addition to the retainer received for committee membership.

In addition, the board of directors approved the payment of a $5,000 annual retainer for Dr. Hau Lee, Dr. Walden Rhines and Jodi Shelton for their service in our business enhancement and strategy group. Following the completion of our initial public offering, our non-employee directors who will continue serving as a member of our board of directors will also receive an annual grant of RSUs under the 2024 Plan at such time when such awards are approved by the Board in 2024, and following the conclusion of each regular annual meeting of our stockholders in each following calendar year. The annual RSU award will be with respect to a number of shares of common stock having an aggregate fair market value equal to $150,000 calculated on the date of grant. Each annual RSU award will become fully vested, subject to continued service as a director, on the earliest of the 12-month anniversary of the date of grant, the next annual meeting of stockholders following the date of grant, or the consummation of a change in control as defined in the 2024 Plan.

For information regarding cash compensation earned by our current non-employee directors in connection with their service as employees or consultants of the company and pursuant to the terms of consulting agreements, see “Certain Relationships and Related Party Transactions—Consulting and Employment Arrangements.”

EXECUTIVE COMPENSATION

Our named executive officers, who consist of our principal executive officer, all individuals serving as our principal financial officer, and up to two of our most highly compensated executive officers, for the year ended December 31, 2023 were:

- Dr. Babak A. Taheri, Chief Executive Officer and Director;
- Ryan Benton, Chief Financial Officer;
- Robert McMullan, Former Chief Financial Officer; and
- Dr. Raul Camposano, Chief Technology Officer.

Summary Compensation Table

The following table presents summary information regarding total compensation for the years ended December 31, 2022 and 2023 for each of our named executive officers for the year ended December 31, 2023.

Name and Principal Position	Year	Salary ($)[1]	Bonus ($)[2]	Stock Awards ($)[3]	Nonequity Incentive Plan Compensation ($)[4]	All Other Compensation ($)[5]	Total ($)
Dr. Babak A. Taheri	2023	454,168	—	554,686	174,000	22,550[6]	1,205,404
Chief Executive Officer and Director	2022	391,642	50,091	568,400	113,000	11,188[6]	1,134,321
Ryan Benton	2023	122,348	—	2,737,967	49,000	3,760	2,913,075
Chief Financial Officer[7]							
Robert McMullan	2023	161,093	—	285,000	—	8,583	454,676
Former Chief Financial Officer[8]	2022	217,292	—	404,400	125,000	—	746,692
Dr. Raul Camposano	2023	291,000	—	171,000	57,000	9,630	528,630
Chief Technology Officer	2022	247,958	—	406,000	30,000	3,944	687,902

(1) The amounts in this column represent regular salary, holiday pay and vacation pay.
(2) The amounts in this column represent discretionary cash bonuses granted with respect to 2022 performance.
(3) The amounts in this column represent the aggregate grant-date fair value of awards granted to each individual under our equity incentive plans, computed in accordance with ASC Topic 718. See Notes 2 and 11 to our audited consolidated financial statements as of, and for the years ended December 31, 2022 and 2023 for a discussion of the assumptions we made in determining the grant-date fair value of our equity awards. Such grant-date fair values do not take into account any estimated forfeitures related to service-vesting conditions. The amounts reported in this column reflect the accounting cost for these equity awards and do not correspond to the actual economic value that may be received by the named executive officers in connection therewith.
(4) The amounts in this column represent the applicable service provider's total annual performance-based cash bonus for the years ended December 31, 2022 and 2023, as applicable.
(5) The amounts in this column represent Company contributions in connection with a Company-sponsored 401(k) matching arrangement.
(6) The amount includes payments to Mr. Taheri of $12,650 and $6,613 and for the years ended December 31, 2023 and 2022, respectively, in connection with Mr. Taheri's car lease payment.
(7) Mr. Benton was hired as our Chief Financial Officer in August 2023.
(8) Mr. McMullan was hired as our Chief Financial Officer on January 27, 2022 and served as our Chief Financial Officer until July 5, 2023.

In setting executive base salaries and bonuses, we consider compensation for comparable positions in the market, the historical compensation levels of our executives, individual performance as compared to our expectations and objectives, our desire to motivate our employees to achieve short- and long-term results that are in the best interests of our stockholders, and a long-term commitment to us. We do not target a specific competitive position or a specific mix of compensation among base salary or bonus.

Agreements with Our Named Executive Officers and Potential Payments Upon Termination or Change of Control

Below are descriptions of our employment agreements with our named executive officers. The employment agreements generally provide for at-will employment and set forth the executive officer's initial base salary and eligibility for employee benefits. Our named executive officers are also eligible for severance and change in control benefits under our Executive Severance Plan, as further described below. Furthermore, each of our executive officers has executed a form of our standard proprietary information and inventions assignment agreement.

Agreements with Dr. Babak A. Taheri

On February 29, 2024, we entered into an Amended and Restated Employment Agreement with Dr. Taheri (the "A&R Employment Agreement of Dr. Taheri"), effective as of January 1, 2024. The A&R Employment Agreement of Dr. Taheri amended and restated Dr. Taheri's offer letter agreement with us dated November 23, 2021 to serve in the position of Chief Executive Officer. The A&R Employment Agreement of Dr. Taheri provides that Dr. Taheri is entitled to receive an annual base salary of $485,000 effective as of December 1, 2023. Such base salary shall be evaluated annually by the Board beginning in early 2025, with any Board-approved adjustments effective retroactively as of January 1 of such adjustment year. Additionally, beginning with the fiscal year 2024, Dr. Taheri shall be eligible to earn an annual cash incentive bonus of 60% of his then-current base salary subject to the achievement of certain performance targets. Further pursuant to the terms A&R Employment Agreement of Dr. Taheri, Dr. Taheri shall receive a grant for 350,000 RSUs, which shall be cancelled if we fail to close an initial public offering by December 31, 2024. In addition, the 350,000 RSUs shall be subject to time-based vesting where (i) 175,000 of these RSUs will vest on the business day after the closing of the initial public offering and (ii) 175,000 RSUs will vest over a two-year period following the IPO, with 50% of these RSUs vesting on the one-year anniversary of the closing of the initial public offering and 1/8th of these RSUs vesting in equal quarterly installments during the next 4 quarters thereafter.

Dr. Taheri is eligible to participate in Company benefits generally available to Company executives. In addition, the Company shall provide Dr. Taheri the additional benefits: (1) up to $20,000 annually toward whole life insurance policy premium, which will be treated as additional income and not grossed-up; (2) car lease reimbursement up to $1,000 per month, which will be treated as additional income and not grossed-up; (3) attorney's fees up to $30,000 for review and negotiation related to the A&R Employment Agreement of Dr. Taheri; and (4) relocation reimbursement up to $15,000 if the Company requests a relocation of Dr. Taheri's place of work to the Company headquarters.

2021 Separation and Release Agreement with Dr. Babak A. Taheri

We entered into a confidential separation and release agreement with Dr. Taheri on September 1, 2021 that provided Dr. Taheri with certain severance benefits in connection with his resignation from his position as our director, Chief Technology Officer and Chief Executive Officer. In consideration of Dr. Taheri's execution of a release in our favor and agreement to be bound by the conditions of the separation agreement, we agreed (a) to pay Dr. Taheri $360,000, or the Severance Amount, half of which was payable in September 2021 and the remainder of which was payable on or about February 28, 2022 and (b) to pay the entire monthly COBRA premiums for Dr. Taheri and his dependents for the months of September 2021 through February 2022. In addition, the agreement states that Dr. Taheri had service vested in 78,750 RSUs as of his termination date, but that none of these RSUs will fully vest until the occurrence of a liquidity event (as defined in the award agreements underlying such RSUs). Furthermore, the agreement provides that Dr. Taheri will forfeit, as of his separation date, all then-unvested RSUs, and that he will also forfeit all 78,750 service vested RSUs if we do not experience a liquidity event before their applicable expiration dates.

This agreement was rendered null and void as of November 24, 2021 in connection with Dr. Taheri's renewed service as our Chief Executive Officer. Dr. Taheri received and will retain the initial $180,000 of the Severance Amount and did not receive COBRA premiums through February 2022, as he was reinstated as our Chief Executive Officer within three months of his departure date and his November 2021 offer letter rendered the separation agreement null and void.

Agreement with Dr. Raul Camposano

We entered into an offer letter agreement with Dr. Camposano, dated December 25, 2021, to serve in the position of Chief Technology Officer. This offer letter provides for an annual base salary of $283,000 and eligibility to participant in our annual bonus plan, with his bonus awarded quarterly based on the achievement of corporate and individual goals. Dr. Camposano's offer letter also provides for an initial grant of 50,000 RSUs, which vest over four years, vesting as to 25% after one year with the remaining 75% vesting quarterly over the following three years, subject to Dr. Camposano's continuous service with us through each such vesting date, and subject to acceleration in connection with the Executive Severance Plan.

Agreement with Ryan Benton

We entered into an offer letter agreement with Mr. Benton, dated July 20, 2023, to serve in the position of Chief Financial Officer. This offer letter provides for an annual base salary of $340,000 and eligibility to receive an annual bonus with an estimated value equal to 35% of his annual salary based upon the achievement of individual and corporate goals.

In addition, Mr. Benton's offer letter agreement provides grants of up to an aggregate of 230,000 RSUs. Mr. Benton's offer letter provides for an initial grant of 75,000 RSUs which vest over four years, vesting as to 25% after one year with the remaining 75% vesting quarterly over the following three years, subject to Mr. Benton's continuous service with us through each such vesting date, with 50% of the unvested portion accelerating upon the completion of a

liquidity event or initial public offering (which will include this offering) and subject to acceleration in connection with the Executive Severance Plan. In addition, Mr. Benton's offer letter agreement provides for a grant of 50,000 RSUs which shall be awarded within 30 days following an initial public offering (which will include this offering) which will vest over four years from the grant date, vesting as 25% after one year with the remaining 75% vesting quarterly over the following three years, subject to (i) the company consummating an initial public offering of its stock prior to June 30, 2024 and (ii) Mr. Benton's continuous service with us through each such vesting date. Mr. Benton's offer letter agreement also provides that he will be granted up to an aggregate of 30,000 RSUs, based on the total amount of our revenue during a consecutive twelve month period during the four year period after he joined us, subject to continued employment with the Company through each such date. Lastly, Mr. Benton's offer letter agreement provides that he will be granted up to an aggregate of 75,000 RSUs within 30 days following an initial public offering with such RSUs subject to performance-based vesting based on the volume weighted average price of our stock price as measured over a four-year period, subject to Mr. Benton's continuous service with us through each such vesting date.

Executive Severance Plan

We believe that reasonable severance benefits for our named executive officers and certain members of senior management, are important because it may be difficult for them to find comparable employment within a short period of time. We also believe that it is important to protect our executive officers in the event of a change of control transaction as a result of which such officers might have their employment terminated. In addition, we believe that the interests of management should be aligned with those of our stockholders as much as possible, and we believe that providing protection upon a change of control is an appropriate counter to any disincentive such officers might otherwise perceive in regard to transactions that may be in the best interest of our stockholders.

Accordingly, in February 2024, our board of directors approved an executive plan, or the Executive Severance Plan, which became effective on February 20, 2024, for our executive officers and other senior management, including the Chief Executive Officer, Chief Financial Officer (but excluding our former Chief Financial Officer, Robert McMullan, who terminated employment with us in July 2023) and Chief Technology Officer. The Executive Severance Plan will provide for vesting acceleration benefits in the event of a qualifying initial public offering, which includes this offering, and severance benefits upon a qualifying termination of employment prior to or in connection with a change of control, as described below. The Executive Severance Plan also provides for severance benefits for a qualifying termination not in connection with a change in control, as further described below. To the extent an executive participates in any other Company plan or has entered into another agreement with us that also provides for one or more of the severance benefits provided for in the Executive Severance Plan, then the Executive Severance Plan will supersede and replace in their entirety such other severance benefits.

IPO Benefits under the Executive Severance Plan

Upon the closing of an initial public offering which occurs prior to a "change in control," including this offering, each named executive officer will be entitled to accelerated time-based vesting of 50% of the unvested portion of the executive officer's restricted stock unit awards outstanding as of the closing of the offering, provided the named executive officer remains employed through the closing of the offering. Other senior management included in the Executive Severance Plan will be entitled to accelerated time-based vesting of 25% of the unvested portion of such person's restricted stock unit awards outstanding as of the closing of the offering, provided such person remains employed through the closing of the offering.

The unvested portion of all restricted stock unit awards that are not subject to acceleration of Time-Based Requirement will remain outstanding and subject to continued time-based vesting.

Severance Benefits under the Executive Severance Plan

Under the Executive Severance Plan, if a named executive officer's employment is terminated by the executive officer due to "non-CIC good reason" or by us without "cause" (as such terms are defined in the Executive Severance Plan) not during the period that begins three months prior to and ends 12 months following a change in control, in each case provided that the executive delivers and allows to become effective a signed release of claims in our favor, the named executive officer will be entitled to (i) a cash severance payment equal to the sum of the executive's then-current monthly based salary, multiplied by 15 for our Chief Executive Officer, 12 for our Chief Financial Officer and 6 for our Chief Technology Officer, plus a pro-rated target bonus for the year in which the termination occurs based on the period employed during such year, paid in two equal installments on the first payroll date following the date the release of claims is effective and the first payroll date following the six month anniversary of the release effective date, but not later than March 15th of the year following the year in which the termination occurs, (ii) payment by us of the premiums for continued group health coverage for up to 15 months for our Chief Executive Officer, 12 months for our Chief Financial Officer, and 6 months for our Chief Technology Officer, and (iii) for our Chief Executive Officer and Chief Financial Officer only, accelerated time-based vesting of the unvested portion of the 25% of their then outstanding equity incentive awards.

Change in Control Severance Benefits under the Executive Severance Plan

Under the Executive Severance Plan, if a named executive officer's employment is terminated by the executive officer due to "CIC good reason" or by us without "cause" (as such terms are defined in the Executive Severance Plan) during the period that begins three months prior to and ends 12 months following a change in control, in each case provided that the executive delivers and allows to become effective a signed release of claims in our favor, the named executive officer will be entitled to (i) a cash severance payment equal to the sum of the executive's then-current monthly based salary, multiplied by 18 for our Chief Executive Officer and 15 for our Chief Financial Officer and Chief Technology Officer, plus a pro-rated target bonus for the year in which the termination occurs based on the period employed during such year, paid in a single lump sum on the first payroll date following the date the release of claims is effective, but not later than March 15th of the year following the year in which the termination occurs, (ii) payment by us of the premiums for continued group health coverage for up to 18 months for our Chief Executive Officer and 15 months for our Chief Financial Officer and Chief Technology Officer, and (iii) for all of the named executive officers accelerated time-based vesting of the unvested portion of the 100% of their then outstanding equity incentive awards.

Health, Welfare and Retirement Benefits

All of our current named executive officers are eligible to participate in our employee benefit plans, including our medical, dental, and vision insurance plans and 401(k) plan (as described below), in each case on the same basis as all of our other employees. We currently do not contribute to a retirement plan on behalf of employees other than our 401(k) plan.

Nonqualified Deferred Compensation

None of our named executive officers participates in or has account balances in nonqualified defined contribution plans or other nonqualified deferred compensation plans maintained by us. Our board of directors may elect to provide our officers and other employees with nonqualified defined contribution or other nonqualified deferred compensation benefits in the future if it determines that doing so is in our best interests.

401(k) Plan

We sponsor a qualified retirement plan that is intended to qualify for favorable tax treatment under Section 401(a) of the Internal Revenue Code of 1986, as amended, or the Code, and contains a cash or deferred feature that is intended to meet the requirements of Section 401(k) of the Code. Participants may make pre-tax and certain after-tax (Roth) salary deferral contributions to the plan from their eligible earnings up to the statutorily prescribed annual limit under the Code. Participants who are 50 years of age or older may contribute additional amounts based on the statutory limits for catch-up contributions. Participant contributions are held in trust as required by law. No minimum benefit is provided under the plan. An employee's interest in his or her salary deferral contributions is 100% vested when contributed. We have the ability to make discretionary matching contributions under the plan.

2014 Stock Incentive Plan

The 2014 Plan was initially adopted by our board of directors on January 23, 2014 and approved by our stockholders on January 24, 2014. The 2014 Plan was amended and restated in March 2024 in order to increase the number of shares available for issuance and to extend the term of the 2014 Plan an additional ten years. The purpose of the 2014 Plan is to offer selected persons an opportunity to acquire a proprietary interest in our success by acquiring shares of our common stock.

The 2014 Plan permits the direct award or sale of shares and for the grant of nonstatutory stock options, restricted stock, stock appreciation rights, or SARs, RSUs and other stock awards to our employees, directors and consultants and any of our parents' or subsidiaries' employees and consultants. Incentive stock options, within the meaning of Section 422 of the Code, may also be granted but only to our employees and our parents' or subsidiaries' employees. We have only granted liquidity contingent RSUs under the 2014 Plan.

Share reserve. As of the date of this prospectus, 4,600,000 shares of common stock have been authorized for issuance under the 2014 Plan. As of December 31, 2023, a total of 3,398,276 shares of common stock were subject to outstanding RSUs under the 2014 Plan. Shares subject to awards that are cancelled, forfeited, settled in cash or expire by their terms, and shares subject to awards that are used to pay withholding obligations or the exercise price of an option will become available for future awards under the 2014 Plan. Shares of common stock that have previously been issued under the 2014 Plan that are reacquired by us pursuant to a forfeiture provision will again become available for future issuance under the 2014 Plan.

Administration. Our board of directors or a committee appointed thereby administers the 2014 Plan. All actions of the board will be final and binding on all persons.

Stock options. The board may grant incentive and/or nonstatutory stock options under the 2014 Plan; provided that incentive stock options are only granted to employees. The exercise price of options granted under the plan must be

equal to or greater than 100% of the fair market value of our common stock on the date of grant. The term of an option may not exceed 10 years; provided, however, that an incentive stock option held by an optionee who owns more than 10% of the total combined voting power of all classes of our stock, any parent or any of our subsidiary corporations, may not have a term in excess of five years and must have an exercise price of at least 110% of the fair market value of our common stock on the grant date. The exercise price for an option may be paid in cash or check. In addition, the board may permit other forms of payment such as surrender of shares, services rendered, promissory note, cashless exercise, or pledge of shares. Subject to the provisions of the 2014 Plan, the board determines the remaining terms of the options (e.g., exercisability and vesting). The board may permit an optionee to exercise his or her option as to shares that have not vested. The optionee may exercise his or her option, to the extent vested, following termination of the optionee's service for the period specified in the award agreement, such period to be at least 30 days if termination is due to any reason other than cause, death or disability (or six months in the case of termination due to death or disability). However, in no event may an option be exercised later than the expiration of its term.

Restricted shares. Restricted shares may be offered under the 2014 Plan. The board will advise the offeree in writing of the terms, conditions and restrictions related to the offer, including the number of shares that such person will be entitled to purchase, the price to be paid (if any), and the time within which such person must accept such offer.

Restricted Stock Unit Awards. Under the 2014 Plan, RSUs give recipients the right to acquire a specified number of shares of stock (or cash amount) at a future date upon the satisfaction of certain conditions, including any performance conditions or other vesting arrangements, established by the board of directors and as set forth in a RSU award agreement. An RSU award may be settled by cash, delivery of stock, or a combination of cash and stock as deemed appropriate by the board of directors. Recipients of RSUs generally will have no voting or dividend rights prior to the time the vesting conditions are satisfied and the award is settled. At the board of directors' discretion and as set forth in the RSU award agreement, RSUs may provide for the right to dividend equivalents.

We granted RSUs to certain employees that will vest on the first date upon which both the "time-based requirement" and the "liquidity event requirement" (as such terms are defined in the applicable award agreement) are satisfied with respect to that particular RSU; provided, that such vesting conditions are satisfied within 10 years of the grant date. The liquidity event requirement will be satisfied as to any then-outstanding RSUs on the first to occur of: (1) a "change in control" (as defined in the award agreement) pursuant to which the RSUs (or the shares subject to the RSUs) will be settled for cash and/or readily tradeable securities or (2) an underwritten initial public offering, including the consummation of this offering.

The time-based requirement may be satisfied in one of three ways, depending on the form of award agreement under which the RSUs have been issued. Under our standard form of award agreement, the time-based requirement will be satisfied in installments as follows: 25% of the RSUs will have the time-based requirement satisfied on the one-year anniversary of the vesting start date and 1/16th of the RSUs will have the time-based requirement satisfied in equal quarterly installments during the next 12 quarters thereafter, subject to the participant's continuous service through each such vesting date. Certain RSUs have been granted to executives on a second form of award agreement with the same time-based requirement described in the preceding sentence, provided that time-based vesting is subject to acceleration in accordance with the terms of the Executive Change in Control Plan as described above under the heading "—Executive Change in Control Plan." Certain other RSUs have been granted on a third form of award agreement, pursuant to which the RSUs are deemed to have satisfied the time-based requirement as of the grant date.

Upon termination of employment, RSUs terminate to the extent the time-based requirement has not been satisfied. Even if the time-based requirement has been satisfied, if the liquidity event requirement is not satisfied before the expiration date of the RSUs, the RSUs will automatically terminate on such date.

Unrestricted Stock Awards and SARs. We may also grant SARs and other forms of award that are based in whole or in part on shares or the value thereof. SARs generally provide for payments to the recipient based upon increases in the price of our common stock over the exercise price of the SAR. Our board determines the exercise prices of SARs, which cannot be less than 100% of the fair market value of our common stock on the date of grant. A SAR granted under the 2014 Plan vests at the rate specified in the SAR agreement as determined by the board and may have a maximum term of 10 years. Upon the exercise of a SAR, we will pay the participant an amount in stock, cash, or a combination of stock and cash as determined by the board, equal to the product of (1) the excess of the per share fair market value of our common stock on the date of exercise over the exercise price, multiplied by (2) the number of shares of common stock with respect to which the SAR is exercised. We have not granted any SARs or other forms of stock-based awards under the 2014 Plan.

Transferability/forfeiture. Unless determined otherwise by the board, the 2014 Plan generally does not allow for awards to be transferred in any manner other than by will or the laws of descent and distribution. Notwithstanding the foregoing, to the extent permitted by the board, a nonqualified option may be transferred to a revocable trust or as permitted by California securities law and Rule 701 of the Securities Act. Shares awarded or sold under the 2014 Plan or received upon the exercise of options may be subject to certain forfeiture conditions, rights to repurchase, rights of first refusal, market stand-off or other transfer restrictions as the board may determine and as set forth in the applicable award agreement.

Adjustments. In the event that any dividend or other distribution (whether in the form of cash, shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of our shares or other securities, or other change in our corporate structure affecting the shares occurs, the board will adjust the number of shares that may be delivered under the 2014 Plan and/or the number and price of shares covered by each outstanding award.

Corporate transaction. If we are a party to a merger or consolidation, or in the event of a sale of all or substantially all of our stock or assets, outstanding awards under the 2014 Plan will be subject to the agreement governing the transaction. The terms of such agreement may provide that (a) outstanding awards continue if we are the surviving entity, (b) the 2014 Plan and outstanding awards are assumed by the surviving entity, (c) awards are substituted for awards of the surviving entity or its parent, (d) acceleration of vesting followed by cancellation of the awards, or (e) settlement of the intrinsic value of awards followed by cancellation of the awards, in each case without the award holder's consent.

Plan amendments and termination. Our board may at any time amend, alter, suspend or terminate the 2014 Plan. However, the board will obtain stockholder approval of any 2014 Plan amendment to the extent necessary and desirable to comply with applicable law. A termination or amendment of the 2014 Plan will not impair the rights of any participant under the 2014 Plan, unless mutually agreed to otherwise by such participant and us.

Upon the completion of this offering, the 2014 Plan will be terminated and no shares of our common stock will remain available for future issuance under the 2014 Plan. Shares originally reserved for issuance under the 2014 Plan but which are not issued or subject to outstanding awards on the effective date of the 2024 Plan, and shares subject to outstanding awards under the 2014 Plan on the effective date of the 2024 Plan that are subsequently forfeited or terminated for any reason before being exercised or settled, including shares subject to vesting restrictions that are subsequently forfeited, will become available for awards under the 2024 Plan.

2024 Stock Incentive Plan

On April 26, 2024, our board of directors approved and adopted, subject to stockholder approval, the 2024 Plan, and our stockholders approved the 2024 Plan on April 29, 2024. The 2024 Plan will become effective upon the effectiveness of the registration statement of which this prospectus forms a part. This summary is not a complete description of all provisions of the 2024 Plan and is qualified in its entirety by reference to the 2024 Plan, which will be filed as an exhibit to the registration statement of which this prospectus is a part.

Stock Awards. The 2024 Plan provides for incentive stock options, or ISOs, non-qualified stock options, or NSOs, restricted share awards, stock unit awards, SARs, other stock-based awards, performance-based stock awards, (collectively, "stock awards") and cash-based awards (stock awards and cash-based awards are collectively referred to as "awards"). ISOs may be granted only to our employees, including officers, and the employees of our parent or subsidiaries. All other awards may be granted to our employees, officers, our non-employee directors, and consultants and the employees and consultants of our subsidiaries, and affiliates.

Share Reserve. The aggregate number shares that may be issued pursuant to stock awards under the 2024 Plan will not exceed the sum of (w) 3,425,278 shares, plus (x) any shares underlying outstanding awards under the 2014 Plan that are subsequently forfeited or terminated for any reason before being exercised or becoming vested, not issued because an award is settled in cash, or withheld or reacquired to satisfy the applicable exercise, or purchase price, or a tax withholding obligation, plus (y) the number of reserved shares not issued or subject to outstanding grants under the 2014 Plan, on the effective date of the 2024 Plan, plus (z) an annual increase on the first day of each calendar year, for a period of not more than 10 years, beginning on January 1, 2025 and ending on (and including) January 1, 2034, in an amount equal to the lesser of (i) 3% of our outstanding shares on the last day of the immediately preceding calendar year or (ii) such lesser amount (including zero) that the Compensation Committee determines for purposes of the annual increase for that calendar year.

If restricted shares or shares issued upon the exercise of options are forfeited, then such shares will again become available for awards under the 2024 Plan. If stock units, options, or SARs are forfeited or terminate for any reason

before being exercised or settled, or an award is settled in cash without the delivery of shares to the holder, then the corresponding shares will again become available for awards under the 2024 Plan.

Any shares withheld to satisfy the exercise price or tax withholding obligation pursuant to any award of options or SARs will again become available for awards under the 2024 Plan. If stock units or SARs are settled, then only the number of shares (if any) actually issued in settlement of such stock units or SARs will reduce the number of shares available under the 2024 Plan, and the balance (including any shares withheld to cover taxes) will again become available for awards under the 2024 Plan.

Shares issued under the 2024 Plan will be authorized but unissued shares, treasury shares, or previously issued shares. As of the date hereof, no awards have been granted and no shares have been issued under the 2024 Plan.

Incentive Stock Option Limit. The maximum number of shares that may be issued upon the exercise of ISOs under the 2024 Plan is equal to five times the number of shares specified in subpart (w) of the 2024 Plan's share reserve formula as described above under the heading "—Share Reserve", plus, to the extent allowable under Section 422 of the Code, any shares that become available for issuance under the 2024 Plan on account of (i) an award being forfeited before all underlying shares have been issued or settled, or (ii) a portion of the shares underlying an award being withheld to satisfy the exercise price or tax withholding of such award.

Grants to Outside Directors. The sum of (i) the grant date fair value for financial reporting purposes of any awards granted during any calendar year under the 2024 Plan to an outside director as compensation for services as an outside director and (ii) any cash fees paid by us to such outside director during such calendar year for service on our board of directors, may not exceed $750,000, or, in the calendar year in which the outside director is first appointed or elect to our board, $1,000,000.

Administration. The 2024 Plan will be administered by the Compensation Committee as appointed by our board of directors, or by the board of directors acting as the Compensation Committee. Subject to the limitations set forth in the 2024 Plan, the Compensation Committee will have the authority to determine, among other things, to whom awards will be granted, the number of shares subject to awards, the term during which an option or SAR may be exercised and the rate at which the awards may vest or be earned, including any performance criteria to which they may be subject. The Compensation Committee also will have the authority to determine the consideration and methodology of payment for awards. To the extent permitted by applicable law, the board of directors or Compensation Committee may also authorize one or more of our officers to designate employees, other than officers under Section 16 of the Exchange Act, to receive awards and/or to determine the number of such awards to be received by such persons subject to a maximum total number of awards.

Repricing; Cancellation and Re-Grant of Stock Awards. The Compensation Committee will have the authority to modify outstanding awards under the 2024 Plan. Subject to the terms of the 2024 Plan, the Compensation Committee will have the authority to cancel any outstanding stock award in exchange for new stock awards, including awards having the same or a different exercise price cash, or other consideration, without stockholder approval but with the consent of any adversely affected participant.

Stock Options. A stock option is the right to purchase a certain number of shares, at a certain exercise price, in the future. Under the 2024 Plan, ISOs and NSOs are granted pursuant to stock option agreements adopted by the Compensation Committee. The Compensation Committee determines the exercise price for a stock option, within the terms and conditions of the 2024 Plan, provided that the exercise price of a stock option generally cannot be less than 100% of the fair market value of our shares on the date of grant. Options granted under the 2024 Plan vest at the rate specified by the Compensation Committee.

Stock options granted under the 2024 Plan generally must be exercised by the optionee before the earlier of the expiration of such option or the expiration of a specified period following the optionee's termination of employment. The Compensation Committee determines the term of the stock options up to a maximum of 10 years. Each stock option agreement will also set forth the extent to which the option recipient will have the right to exercise the option following the termination of the recipient's service with us, and the right to exercise the option of any executors or administrators of the award recipient's estate or any person who has acquired such options directly from the award recipient by bequest or inheritance.

Payment of the exercise price may be made in cash or, if provided for in the stock option agreement evidencing the award, (1) by surrendering, or attesting to the ownership of, shares which have already been owned by the optionee, (2) future services or services rendered to us or our affiliates prior to the award, (3) by delivery of an irrevocable direction to a securities broker to sell shares and to deliver all or part of the sale proceeds to us in payment of the aggregate exercise price, (4) by delivery of an irrevocable direction to a securities broker or lender to pledge shares and to deliver all or part of the loan proceeds to us in payment of the aggregate exercise price, (5) by a "net exercise"

arrangement, (6) by delivering a full-recourse promissory note, or (7) by any other form that is consistent with applicable laws, regulations, and rules.

Tax Limitations on Incentive Stock Options. The aggregate fair market value, determined at the time of grant, of our shares with respect to ISOs that are exercisable for the first time by an option holder during any calendar year under all of our stock plans may not exceed $100,000. Options or portions thereof that exceed such limit will generally be treated as NSOs. No ISO may be granted to any person who, at the time of the grant, owns or is deemed to own stock possessing more than 10% of our total combined voting power or that of any of our affiliates unless (1) the option exercise price is at least 110% of the fair market value of the stock subject to the option on the date of grant, and (2) the term of the ISO does not exceed five years from the date of grant.

Restricted Share Awards. The terms of any awards of restricted shares under the 2024 Plan will be set forth in a restricted share agreement to be entered into between us and the recipient. The Compensation Committee will determine the terms and conditions of such restricted share agreements, which need not be identical. A restricted share award may be subject to vesting requirements or transfer restrictions or both. Restricted shares may be issued for such consideration as the Compensation Committee may determine, including cash, cash equivalents, full recourse promissory notes, past services and future services. Award recipients who are granted restricted shares generally have all of the rights of a stockholder with respect to those shares, provided that dividends and other distributions will not be paid in respect of unvested shares unless otherwise determined by the Compensation Committee and, in such case, only once such unvested shares vest.

Stock Unit Awards. Stock unit awards give recipients the right to acquire a specified number of shares (or cash amount) at a future date upon the satisfaction of certain conditions, including any vesting arrangement, established by the Compensation Committee and as set forth in a stock unit award agreement. A stock unit award may be settled by cash, delivery of shares, a combination of cash and stock as deemed appropriate by the Compensation Committee. Recipients of stock unit awards generally will have no voting or dividend rights prior to the time the vesting conditions are satisfied and the award is settled. At the Compensation Committee's discretion and as set forth in the stock unit award agreement, stock units may provide for the right to dividend equivalents. Dividend equivalents may not be distributed prior to settlement of the stock unit to which the dividend equivalents pertain and the value of any dividend equivalents payable or distributable with respect to any unvested stock units that do not vest will be forfeited.

Stock Appreciation Rights. SARs generally provide for payments to the recipient based upon increases in the price of shares over the exercise price of the SAR. The Compensation Committee determines the exercise price for a SAR, which generally cannot be less than 100% of the fair market value of shares on the date of grant. A SAR granted under the 2024 Plan vests at the rate specified in the SAR agreement as determined by the Compensation Committee. The Compensation Committee determines the term of SARs granted under the 2024 Plan. Upon the exercise of a SAR, we will pay the participant an amount in stock, cash, or a combination of shares and cash as determined by the Compensation Committee, equal to the product of (1) the excess of the per share fair market value of shares on the date of exercise over the exercise price, multiplied by (2) the number of shares with respect to which the SAR is exercised.

Other Stock Awards. The Compensation Committee may grant other awards based in whole or in part by reference to our shares. The Compensation Committee will set the number of shares under the stock award and all other terms and conditions of such awards.

Cash-Based Awards. A cash-based award is denominated in cash. The Compensation Committee may grant cash-based awards in such number and upon such terms as it will determine. Payment, if any, will be made in accordance with the terms of the award, and may be made in cash or in shares, as determined by the Compensation Committee.

Performance-Based Awards. The number of shares or other benefits granted, issued, retainable and/or vested under a stock or stock unit award may be made subject to the attainment of performance goals. The Compensation Committee may utilize any performance criteria selected by it in its sole discretion to establish performance goals.

Changes to Capital Structure. In the event of a recapitalization, stock split, or similar capital transaction, the Compensation Committee will make appropriate and equitable adjustments to the number of shares reserved for issuance under the 2024 Plan, the number of shares that can be issued as incentive stock options, the number of shares subject to outstanding awards and the exercise price under each outstanding option or SAR.

Transactions. If we are involved in a merger or other reorganization, outstanding awards will be subject to the agreement of merger or reorganization. Subject to compliance with applicable tax laws, such agreement may provide, without limitation, for (1) the continuation of the outstanding awards by us, if we are a surviving corporation, (2) the assumption or substitution of the outstanding awards by the surviving corporation or its parent or subsidiary, (3) the immediate vesting, exercisability, and settlement of the outstanding awards followed by their cancellation, (4)

cancellation of the award, to the extent not vested or not exercised prior to the effective time of the merger or reorganization, in exchange for such cash or equity consideration (including no consideration) as the Compensation Committee, in its sole discretion, may consider appropriate, or (5) the settlement of the intrinsic value of the outstanding awards (whether or not vested or exercisable) in cash, cash equivalents, or equity (including cash or equity subject to deferred vesting and delivery consistent with the vesting restrictions applicable to such award or the underlying shares) followed by cancellation of such awards, provided that any such amount may be delayed to the same extent that payment of consideration to the holders of shares in connection with the merger or reorganization is delayed as a result of escrows, earnouts, holdbacks or other contingencies.

Change of Control. The Compensation Committee may provide, in an individual award agreement or in any other written agreement between a participant and us, that the stock award will be subject to acceleration of vesting and exercisability in the event of a change of control.

Transferability. Unless the Compensation Committee provides otherwise, no award granted under the 2024 Plan may be transferred in any manner (prior to the vesting and lapse of any and all restrictions applicable to shares issued under such award), except by will, the laws of descent and distribution, or pursuant to a domestic relations order, provided that all ISOs may only be transferred or assigned only to the extent consistent with Section 422 of the Code.

Amendment and Termination. Our board of directors will have the authority to amend, suspend, or terminate the 2024 Plan, provided that such action does not materially impair the existing rights of any participant without such participant's written consent.

No ISOs may be granted more than 10 years after years after the later of (i) the approval of the Plan by the board (or if earlier, the stockholders) and (ii) the approval by the board (or if earlier, the stockholders) of any amendment to the Plan that constitutes the adoption of a new plan for purposes of Section 422 of the Code.

Recoupment. To the extent permitted by applicable law, the Compensation Committee will have the authority to require that, in the event that we are required to prepare restated financial results owing to an executive officer's intentional misconduct or grossly negligent conduct, such executive officer will reimburse or forfeit to us the amount of any bonus or incentive compensation (whether cash-based or equity-based) such executive officer received during a fixed period, as determined by the Compensation Committee, preceding the year the restatement is determined to be required. That executive officer will forfeit or reimburse to us any bonus or incentive compensation to the extent that such bonus or incentive compensation exceeds what the officer would have received in that period based on an applicable restated performance measure or target. We will recoup incentive-based compensation from executive officers to the extent required under the Dodd-Frank Wall Street Reform and Consumer Protection Act and any rules, regulations and listing standards that may be issued under that act.

2024 Employee Stock Purchase Plan

On April 26, 2024, our board of directors approved and adopted, subject to stockholder approval, the ESPP, and our stockholders approved the ESPP on April 29, 2024. The ESPP will become effective upon the effectiveness of the registration statement of which this prospectus forms a part. This summary is not a complete description of all provisions of the ESPP and is qualified in its entirety by reference to the ESPP, which will be filed as an exhibit to the registration statement of which this prospectus is a part.

General. The ESPP is intended to qualify as an "employee stock purchase plan" under Code Section 423, except as explained below under heading "—International Participation." During regularly scheduled "offerings" under the ESPP, participants will be able to request payroll deductions and then expend the accumulated deduction to purchase a number of our shares at a discount and in an amount determined in accordance with the ESPP's terms.

Shares Available for Issuance. The ESPP will have 312,500 authorized but unissued shares reserved for issuance upon becoming effective, plus an additional number of shares to be reserved annually on the first day of each calendar year for a period of not more than 10 years, beginning on January 1, 2025, in an amount equal to the lesser of (i) 1% of our outstanding shares on such date or (ii) the amount (including zero) that the Compensation Committee determines for purposes of the annual increase for that calendar year.

Administration. The ESPP will be administered by the Compensation Committee, or by our board of directors acting as the Compensation Committee. The Compensation Committee has the authority to construe, interpret and apply the terms of the ESPP to determine eligibility, to establish such limitations and procedures as it determines are consistent with the ESPP and to adjudicate any disputed claims under the ESPP.

Eligibility. Each full-time and part-time employee, including officers, employee directors, and employees of participating subsidiaries, who is employed on the day preceding the start of any offering period will be eligible to participate in the ESPP. The ESPP will permit an eligible employee to purchase shares through payroll deductions,

which may not be less than 1% nor more than 15% of the employee's compensation, or such lower limit as may be determined by the Compensation Committee from time to time. However, no employee is eligible to participate in the ESPP if, immediately after electing to participate, the employee would own shares (including shares such employee may purchase under this plan or other outstanding options) representing 5% or more of the total combined voting power or value of all classes of shares. No employee will be able to purchase more than 25,000 shares or such number of shares as may be determined by the Compensation Committee with respect to a single offering period, or purchase period, if applicable.

In addition, under applicable tax rules, no employee is permitted to accrue, under the ESPP and all of our or our subsidiaries' similar purchase plans, a right to purchase shares having a fair market value in excess of $25,000 (determined at the time the right is granted) for each calendar year. Employees will be able to withdraw their accumulated payroll deductions prior to the end of the offering period in accordance with the terms of the offering. Participation in the ESPP will end automatically on termination of employment.

Offering Periods and Purchase Price. The ESPP will be implemented through a series of offerings of purchase rights to eligible employees. Under the ESPP, the Compensation Committee may specify offerings with a duration of not more than 27 months and may specify shorter purchase periods within each offering. During each purchase period, payroll deductions will accumulate, without interest. On the last day of the purchase period, accumulated payroll deductions will be used to purchase shares for employees participating in the offering.

The purchase price will be specified pursuant to the offering, but cannot, under the terms of the ESPP, be less than 85% of the fair market value per share on either the offering date or on the purchase date, whichever is less. The fair market value of shares for this purpose will generally be the closing price on the Nasdaq Global Select Market (or such other exchange as the shares may be traded at the relevant time) for the date in question, or if such date is not a trading day, for the last trading day before the date in question.

Reset Feature. The Compensation Committee may specify that, if the fair market value of a share on any purchase date within a particular offering period is less than or equal to the fair market value on the start date of that offering period, then the offering period will automatically terminate and the employee in that offering period will automatically be transferred and enrolled in a new offering period which will begin on the next day following such purchase date.

Changes to Capital Structure. In the event that there is a specified type of change in our capital structure, such as a stock split, appropriate adjustments will be made to (1) the number of shares reserved under the ESPP, (2) the individual and aggregate participant share limitations described in the plan and (3) the price of shares that any participant has elected to purchase.

International Participation. To provide greater flexibility in structuring our equity compensation programs for our non-U.S. employees, the ESPP also permits us to grant employees of non-U.S. subsidiary entities rights to purchase shares pursuant to other offering rules or sub-plans adopted by the Compensation Committee in order to achieve tax, securities law or other compliance objectives. While the ESPP is intended to be a qualified "employee stock purchase plan" within the meaning of Code Section 423, any such international sub-plans or offerings are not required to satisfy those U.S. tax code requirements and therefore may have terms that differ from the ESPP terms applicable in the United States. However, the international sub-plans or offerings are subject to the ESPP terms limiting the overall shares available for issuance, the maximum payroll deduction rate, maximum purchase price discount and maximum offering period length.

Corporate Reorganization. Immediately before a corporate reorganization, the offering period and purchase period then in progress will terminate and either shares will be purchased with the accumulated payroll deductions or the accumulated payroll deductions will be refunded without occurrence of any shares purchase, unless the surviving corporation (or its parent corporation) assumes the ESPP under the plan of merger or consolidation.

Amendment and Termination. Our board of directors and the Compensation Committee will each have the right to amend, suspend or terminate the ESPP at any time. Any increase in the aggregate number of shares to be issued under the ESPP is subject to stockholder approval. Any other amendment is subject to stockholder approval only to the extent required under applicable law or regulation, including Section 423 of the Code.

Rule 10b5-1 Plans

Our directors and executive officers may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell our common shares on a periodic basis. Such Rule 10b5-1 plans must comply with Rule 10b5-1 of the Exchange Act, (as amended from time to time, "Rule 10b5-1") and the terms of our insider trading policy. Under a Rule 10b5-1 plan, a broker executes trades pursuant to parameters established by the director or officer when entering into the plan, without further direction from them. The director or officer may amend or terminate a Rule 10b5-1 plan in some circumstances, subject to compliance with the terms of our insider trading policy and the

requirements of Rule 10b5-1. Our directors and executive officers also may buy or sell additional shares outside of a Rule 10b5-1 plan when they are not in possession of material nonpublic information subject to compliance with the terms of our insider trading policy. Prior to the expiration of the period ending 180 days after the date of this prospectus, or the Restricted Period, subject to early termination, the sale of any shares under such Rule 10b5-1 plans would be prohibited by the lock-up agreement that the director or officer has entered into with the underwriters.

Outstanding Equity Awards at Fiscal Year-End

The following table presents information regarding outstanding equity awards for each of our named executive officers for the year ended December 31, 2023. All awards in the table below are subject to the terms and conditions of the Executive Severance Plan as described above.

In accordance with the rules promulgated by the SEC, certain columns relating to information that is not applicable have been omitted from this table.

		Stock Awards	
Name	**Grant Date**	**Number of shares or units of stock that have not vested (#)**	**Market value of shares or units of stock that have not vested ($)**
Dr. Babak A. Taheri	10/1/2018[1]	50,000	221,000
	8/1/2019[2]	10,000	50,800
	8/12/2020[1]	25,000	203,000
	8/18/2020[2]	10,000	70,600
	1/8/2021[2]	7,500	53,250
	2/3/2021[2]	7,500	54,525
	5/24/2021[1]	40,000	324,800
	4/22/2022[1]	62,500	507,500
	5/25/2022[1]	7,500	60,900
	1/26/2023[1]	72,985	554,686
Ryan Benton	11/30/2023[1]	75,000	1,034,500
	11/30/2023[3]	50,000	689,667
	11/30/2023[4]	10,000	137,933
	11/30/2023[4]	10,000	137,933
	11/30/2023[4]	10,000	137,933
	11/30/2023[5]	75,000	600,000
Robert McMullan	4/22/2022	45,000	365,400
	8/26/2022	2,500	20,300
	12/2/2022	2,500	20,300
	1/26/2023	37,500	285,000
Dr. Raul Camposano	9/21/2016[1]	2,500	8,350
	4/22/2022[1]	50,000	406,000
	1/26/2023[1]	22,500	171,000

(1) Award vests on the first date upon which both the Time-Based Requirement and the Liquidity Event Requirement are satisfied with respect to the award. The liquidity event requirement will be satisfied as to any then-outstanding RSUs on the first to occur of: (1) an RSU change in control (as defined in the award agreement) or (2) an IPO (as defined in the award agreement), in each case, within 10 years of the grant date (the "Liquidity Event Requirement"). For the avoidance of doubt, failure to satisfy the Liquidity Event Requirement within 10 years of the grant date results in the cancellation of the RSUs. The Time-Based Requirement will be satisfied in installments as follows: 25% of the RSUs will have the Time-Based Requirement satisfied on the one-year anniversary of the vesting commencement date (as defined in the RSU award agreement), with the remaining 75% of the RSUs vesting with respect to the Time-Based Requirement in equal quarterly installments during the next 12 quarters thereafter, subject to the recipient's continuous service through each such date.

(2) Award vests on the first date upon which both the Time-Based Requirement and the Liquidity Event Requirement are satisfied with respect to the award. For the avoidance of doubt, failure to satisfy the Liquidity Event Requirement within 10 years of the grant date results in the cancellation of the RSUs. The Time-Based Requirement is deemed to have been satisfied on the grant date.

(3) Award vests over four years, vesting as 25% after one year with the remaining 75% vesting quarterly over the following three years, subject to (i) the company consummating an initial public offering of its stock prior to June 30, 2024 and (ii) the executive's continuous service through each such vesting date.

(4) Award vests upon which both the Time-Based Requirement and Revenue Requirement are satisfied with respect to the award. The "Revenue Requirement" will be satisfied with respect to different numbers of RSUs, subject to the recipient's continuous service

through such date, when our revenues within the four-year period commencing from the vesting commencement date, exceeds certain amounts, and is comprised of three tranches: (i) the Revenue Requirement will be satisfied with respect to 10,000 RSUs if our revenues exceed $75 million during any consecutive twelve-month period during the four-year period commencing the vesting commencement date; (ii) the Revenue Requirement will be satisfied with respect to an additional 10,000 RSUs if our revenues exceed $90 million during any consecutive twelve-month period during the four-year period commencing the vesting commencement date; and (iii) the Revenue Requirement will be satisfied with respect to an additional 10,000 RSUs if our revenues exceed $120 million during any consecutive twelve-month period during the four-year period commencing the vesting commencement date.

(5) Award consists of three tranches of RSUs. The first tranche of 20,000 of RSUs will vest on the first date following the vesting commencement date upon which each of (i) the Time-Based Requirement and (ii) the Market Price Requirement are satisfied with respect to that particular RSU award. The Market Price Requirement for this award will be satisfied on the first date our volume-weighted average stock price (based on the price at the close of market as reflected on Bloomberg.com) for 50 out of 60 consecutive trading days exceeds 125% of the price at which we sell our common stock to the underwriters in the IPO, subject to the grantee's continued service through such date. The second tranche of 25,000 of RSUs will vest on the first date following the vesting commencement date upon which each of (i) the Time-Based Requirement and (ii) the Market Price Requirement are satisfied with respect to that particular RSU award. The Market Price Requirement for this award will be satisfied on the first date our volume-weighted average stock price (based on the price at the close of market as reflected on Bloomberg.com) for 50 out of 60 consecutive trading days exceeds 150% of the price at which we sell our common stock to the underwriters in the IPO, subject to the grantee's continued service through such date. The third tranche of 30,000 RSUs will vest on the first date following the vesting commencement date upon which each of (i) the Time-Based Requirement and (ii) the Market Price Requirement are satisfied with respect to that particular RSU award. The Market Price Requirement for this award will be satisfied on the first date our volume-weighted average stock price (based on the price at the close of market as reflected on Bloomberg.com) for 50 out of 60 consecutive trading days exceeds 200% of the price at which we sell our common stock to the underwriters in the IPO within four years from the date of grant, subject to the grantee's continued service through such date.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

The following includes a summary of transactions since January 1, 2021 to which we have been a party, in which the amount involved in the transaction exceeded the lesser of $120,000 or 1% of the average of our total assets at year-end for the last two completed fiscal years, and in which any of our directors, executive officers or, to our knowledge, beneficial owners of more than 5% of our capital stock or any member of the immediate family of any of the foregoing persons had or will have a direct or indirect material interest, other than equity and other compensation, termination, change of control, and other arrangements, which are described under "Executive Compensation."

Related Party Loans and Line of Credit

In February 2012, Gu-Guide LP, a real estate entity controlled by Ms. Ngai-Pesic, Bank of the West (subsequently acquired by BMO) and Silvaco Group, Inc. entered into a loan agreement (the "BMO Loan Agreement") pursuant to which Bank of the West agreed to lend Gu-Guide LP approximately $1.0 million, together with unpaid interest from a prior loan (the "Loan"). The BMO Loan Agreement has an interest rate of 3.88% per annum. In May 2018, we provided an absolute and unconditional guaranty of any outstanding indebtedness of Gu-Guide LP under the BMO Loan Agreement. The Loan is secured by a building representing a total of 9,000 square feet located at 4701 Patrick Henry Drive, Santa Clara, California 95054. In the event there is a default under the Loan and foreclosure proceedings occur, if the proceeds from the foreclosure of the foregoing collateral are insufficient to repay the outstanding amounts under the Loan, we have guaranteed the repayment of the outstanding amounts under the Loan. As of December 31, 2023, $0.8 million is outstanding under the Loan.

On May 1, 2019, we received a $0.5 million loan from Kipee, a real estate entity owned by Ms. Ngai-Pesic, at an interest rate of 3.0% per annum, pursuant to a promissory note. We received a $0.5 million loan from Kipee on each of July 1, 2019, August 14, 2019, October 10, 2019, or the October 2019 Loan, and February 14, 2020, or the February 2020 Loan, each of which bore an interest rate of 4.0% per annum, pursuant to promissory notes. On December 8, 2021, we received the $0.5 million December 2021 Loan from Ms. Ngai-Pesic at an interest rate of 3.25% per annum, pursuant to a promissory note. As of December 31, 2022, these loans were all paid in full.

On March 30, 2022, we received the $0.5 million March 2022 Loan from Ms. Ngai-Pesic at an interest rate of 3.25% per annum, pursuant to a promissory note. We repaid the March 2022 Loan in full in December 2022. From January 1, 2019 through December 31, 2022, the largest aggregate amount of principal outstanding under our loans with Kipee and Ms. Ngai-Pesic, including the outstanding March 2022 Loan, was $2.5 million, and during that period, we repaid $3.5 million in principal and $0.2 million in interest on such loans.

In 2010, we loaned NHC and NHF, real estate entities owned by Ms. Ngai-Pesic, or the NH Entities, $0.9 million and $1.5 million, respectively, to construct an office building in Grenoble, France. Since then, the NH Entities have made payments to us based on cash generated from the leasing of the Grenoble, France, office, at which Silvaco France SA is a tenant. Our Director of Global Sales Operations serves as director of NHC. These notes receivable were settled in fiscal year 2021, with Ms. Ngai-Pesic paying us $0.2 million on behalf of the NH Entities (the net balance remaining after settlement of the notes receivable from the NH Entities and the October 2019 Loan and February 2020 Loan payable to Kipee).

On June 13, 2022, we entered into the up to $4.0 million 2022 Credit Line with Ms. Ngai-Pesic at an interest rate of prime plus 1.0% per annum, pursuant to a promissory note and line of credit agreement. From June 13, 2022 through December 31, 2023, the largest aggregate amount outstanding under the 2022 Credit Line was $2.5 million, and during that period, we paid $0.2 million in interest. As of December 31, 2023, $2.0 million remained outstanding under the 2022 Credit Line. The total outstanding balance of the 2022 Credit Line was due in full upon the earlier of (i) June 13, 2024 and (ii) 10 days following the date that we secure financing in an amount equal to or greater than the 2022 Credit Line. Concurrent with entering into the East West Bank Loan agreement, Ms. Ngai-Pesic agreed to (i) extend the repayment term of the 2022 Credit Line to be the later of (a) the expiration or termination date of the East West Bank Loan or (b) June 13, 2024, and (ii) subordinate the right of repayment of any outstanding amount under the 2022 Credit Line to any amount outstanding under the East West Bank Loan. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources."

Rental Properties Leased from Ms. Ngai-Pesic

We lease our principal executive offices located in Santa Clara, California, from Ms. Ngai-Pesic, for $18,000 per month. In connection with this lease arrangement, we recorded rent expense of $0.1 million and $0.2 million during the years ended December 31, 2022 and 2023, respectively. Our future minimum lease commitment under this three-year arrangement, which commenced on May 1, 2022 and expires on March 31, 2025, is $0.3 million as of December 31, 2023. We also lease from NHF an office facility located in Grenoble, France, for €3,597 per month. We lease from NHC an office facility located in the Cambridgeshire, United Kingdom, for £12,833 per month plus value-added tax.

We also leased from Kipee an office facility located in Austin, Texas through July 2021. In connection with these lease arrangements, we recorded rent expense of $0.4 million, $0.4 million and $0.5 million during the years ended December 31, 2021, 2022 and 2023, respectively.

Consulting and Employment Arrangements; Board Membership Fees

During the year ended December 31, 2021, Ms. Ngai-Pesic earned $96,000 of cash compensation for services rendered as an employee of the company. Ms. Ngai-Pesic's service to us as an employee ceased on January 11, 2022, and on January 12, 2022, we entered into a consulting advisory agreement with Ms. Ngai-Pesic, under which she receives $15,000 annually for general consulting and management services and reimbursement for certain expenses during the years ended December 31, 2022 and 2023.

During the year ended December 31, 2021, Mr. Pesic earned $190,000 of cash compensation for services rendered as an employee of the company. Mr. Pesic's service to us as an employee ceased on January 11, 2022, and on January 12, 2022, we entered into a consulting advisory agreement (the "2022 Advisory Agreement") with Mr. Pesic, under which he received $50,000 annually for strategic advisory services and reimbursement for certain expenses. On December 1, 2023, we amended the 2022 Advisory Agreement, and accordingly, Mr. Pesic will receive $75,000 annual for such services and be entitled to reimbursement for health, dental and vision benefit plan fees. We also reimbursed Mr. Pesic for his monthly car payments of approximately $600 per month. On December 1, 2023, we entered into a consulting advisory agreement with Mr. Pesic, under which he receives $40,000 annually and an award of 5,000 RSUs, for providing consulting services to the chairperson of the Board.

During the year ended December 31, 2021, neither Ms. Ngai-Pesic nor Mr. Pesic earned annual cash retainers for their service on our board of directors and committees thereof. During the year ended December 31, 2022, Ms. Ngai-Pesic and Mr. Pesic earned $90,000 and $50,000, respectively, as an annual cash retainer for their service on our board of directors and committees thereof. During the year ended December 31, 2023, Ms. Ngai-Pesic and Mr. Pesic earned $82,500 and $38,000, respectively, as an annual cash retainer for their service on our board of directors and committees thereof. Mr. Pesic resigned as a director of the company in October 2023.

We also entered into employment agreements and offer letter agreements with certain of our executive officers prior to the completion of this offering. See "Executive Compensation—Agreements with our Named Executive Officers and Potential Payments Upon Termination or Change of Control."

Indemnification Agreements

On April 19, 2021, we entered into indemnification agreements with each of our directors. These agreements will be superseded by further indemnification agreements described below. During the year ended December 31, 2023, we recorded $359 thousand in legal expenses pursuant to the indemnification agreement for attorneys' fees incurred by a former member of the board of directors.

Upon completion of this offering, we intend to enter into new indemnification agreements with each of our directors and executive officers, in addition to the indemnification provided for in our amended and restated certificate of incorporation and amended and restated bylaws. These agreements, among other things, will require us to indemnify our directors and executive officers for certain expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or executive officer in any action or proceeding arising out of their services as one of our directors or executive officers or as a director or executive officer of any other company or enterprise to which the person provides services at our request. In addition, our amended and restated certificate of incorporation and amended and restated bylaws will provide indemnification and advancement of expenses for our directors and executive officers to the fullest extent permitted by the DGCL, subject to certain limited exceptions. We have also purchased directors' and officers' liability insurance for each of our directors and executive officers. For more information regarding these indemnification arrangements, see "Management—Limitation on Liability and Indemnification of Directors and Officers." We believe that these charter provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. A stockholder's investment may decline in value to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

Registration Rights Agreement

On April 12, 2024, we entered into a Registration Rights Agreement (the "Registration Rights Agreement") with Ms. Katherine Ngai-Pesic, Mr. Iliya Pesic, Ms. Yelena Pesic and SMIK Trust (together, the "Stockholders") pursuant to which such Stockholders have certain demand registration rights, short-form registration rights and piggyback registration rights in respect of any shares of common stock and related indemnification rights from us, subject to customary restrictions and exceptions. All fees, costs and expenses of registrations, other than underwriting discounts and commissions, are expected to be borne by us.

Stockholders Agreement

On April 12, 2024, we entered into a Stockholders Agreement (the "Stockholders Agreement") with the Stockholders, pursuant to which (i) at any time the Stockholders together beneficially owns in the aggregate fifty percent or more of our issued and outstanding shares of common stock, the Stockholders shall be entitled to designate for nomination four director nominees; (ii) at any time the Stockholders beneficially owns in the aggregate less than fifty percent but at least forty percent or more of all issued and outstanding shares of common stock, the Stockholders shall be entitled to designate for nomination three director nominees; (iii) at any time the Stockholders beneficially owns in the aggregate less than forty percent but at least twenty percent or more of all issued and outstanding shares of our common stock, the Stockholders shall be entitled to designate for nomination two director nominees; and (iv) at any time the Stockholders beneficially owns in the aggregate less than twenty percent but at least ten percent or more of all issued and outstanding shares of Common Stock, the Stockholders shall be entitled to designate for nomination one director nominee. Further, the Stockholders Agreement provides that so long as the Pesic Family has the right to nominate two directors, they will be entitled to designate a non-voting board observer, with the rights to receive board notices and materials, without the ability to vote on matters brought before our board. In addition, the Stockholders Agreement provides that so long as the Pesic Family has the right to nominate two directors, to the fullest extent possible under applicable laws and regulations, they will be entitled to designate one individual to serve as a member of each committee of the Board, other than the audit committee. The Stockholders Agreement additionally contains provisions with respect to vacancies and replacements.

Policies and Procedures for Transactions with Related Persons

We intend to adopt a written Related Person Transactions Policy prior to the completion of this offering that sets forth our policies and procedures regarding the identification, review, consideration, and oversight of "related person transactions." For purposes of our policy only, a "related person transaction" is a transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which we or any of our subsidiaries are participants involving an amount that exceeds $120,000, in which any "related person" has a material interest.

Transactions involving compensation for services provided to us as an employee, consultant, or director are not considered related person transactions under this policy. A related person is any executive officer, director, nominee to become a director or a holder of more than 5% of any class of our voting securities (including our common stock), including any of their immediate family members and affiliates, including entities owned or controlled by such persons.

Under the policy, the related person in question or, in the case of transactions with a holder of more than 5% of any class of our voting securities, an officer with knowledge of the proposed transaction, must present information regarding the proposed related person transaction to our audit committee (or, where review by our audit committee would be inappropriate, to another independent body of our board of directors) for review. To identify related person transactions in advance, we rely on information supplied by our executive officers, directors and certain significant stockholders.

In considering related person transactions, our audit committee considers the relevant available facts and circumstances, which may include, but not limited to:

- the risks, costs and benefits to us;
- the impact on a director's independence in the event the related person is a director, immediate family member of a director or an entity with which a director is affiliated;
- the terms of the transaction;
- the availability of other sources for comparable services or products; and
- the terms available to or from, as the case may be, unrelated third parties.

Our audit committee will approve only those transactions that it determines are fair to us and in our best interests. All of the transactions described above were entered into prior to the adoption of such policy.

PRINCIPAL STOCKHOLDERS

The following table sets forth information regarding beneficial ownership of our common stock as of March 31, 2024 by:

- each person, or group of affiliated persons, known by us to beneficially own more than 5% of our common stock;
- each of our named executive officers and directors; and
- all of our current executive officers and directors as a group.

The percentage ownership information under the column "Percentage of shares beneficially owned prior to this offering" is based on 20,000,000 shares of common stock outstanding as of March 31, 2024. The percentage ownership information under the column "Percentage of shares beneficially owned after offering" is based on 28,545,663 shares of common stock to be outstanding immediately after the closing of this offering, assuming (i) the issuance of 2,235,101 shares upon the RSU Settlement, (ii) no exercise by the underwriters of their option to purchase additional shares of common stock from us, (iii) the issuance of 310,562 shares of common stock upon the mandatory conversion of the Micron Note in connection with this offering; and (iv) no potential purchases in this offering by the persons and entity named in the table below.

Information with respect to beneficial ownership has been furnished by each director, officer, or beneficial owner of more than 5% of our common stock. We have determined beneficial ownership in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities. In computing the number of shares beneficially owned by a person, we deemed to be outstanding all shares of our common stock issuable pursuant to RSUs that are subject to vesting and settlement conditions expected to occur within 60 days of March 31, 2024, including the Liquidity Event Requirement, which will be satisfied upon completion of this offering and, if applicable, the satisfaction or acceleration of the Time-Based Requirement, which may be satisfied or accelerated in connection with the closing of this offering. These shares are deemed to be outstanding and beneficially owned by the person holding those RSUs for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person. Unless otherwise indicated, the persons or entities identified in this table have sole voting and investment power with respect to all shares shown as beneficially owned by them, subject to applicable community property laws.

Except as otherwise noted below, the address for each person or entity listed in the table is c/o Silvaco Group, Inc., 4701 Patrick Henry Drive, Building #23, Santa Clara, CA 95054.

Name and Address of Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned	
		Prior to this Offering	After this Offering
Greater than 5% Stockholder:			
SMIK Trust[1]	8,222,886	41.1 %	28.8 %
Iliya Pesic[2]	1,165,308	5.8 %	4.1 %
Named Executive Officers and Directors:			
Katherine S. Ngai-Pesic[3]	10,177,114	50.9 %	35.7 %
Dr. Babak A. Taheri[4]	461,974	2.3 %	1.6 %
Dr. Raul Camposano[5]	61,328	*	*
Ryan Benton[6]	41,250	*	*
Dr. Hau L. Lee[7]	5,156	*	*
Anita Ganti	—	*	*
William H. Molloie, Jr.[8]	5,625	*	*
Anthony K. K. Ngai[9]	9,726	*	*
Dr. Walden C. Rhines[10]	5,156	*	*
Jodi L. Shelton[11]	5,156	*	*
All current executive officers and directors as a group (11 persons)[12]	10,842,219	52.5 %	37.1 %

* Represents beneficial ownership of less than 1% of the outstanding shares of our common stock.

(1) Consists of 8,222,886 shares of common stock held of record by Mark Hancock, acting solely and exclusively in his capacity as trustee of the SMIK Trust, of which Ms. Ngai-Pesic is a beneficiary. Mr. Hancock has sole voting and dispositive power over the shares held by SMIK Trust. The address for the SMIK Trust is P.O. Box 61, Newbury Park, CA 91319.
(2) Includes 165,308 RSUs that vest within 60 days of March 31, 2024.
(3) Consists of 10,177,114 shares of common stock held of record by Ms. Ngai-Pesic. In addition, Ms. Ngai-Pesic is a beneficiary of the shares held by SMIK Trust. Ms. Ngai-Pesic does not have voting or dispositive power over the shares held by SMIK Trust.
(4) Consists of 461,974 RSUs that vest within 60 days of March 31, 2024 or for which vesting will be accelerated in connection with this offering.
(5) Consists of 61,328 RSUs that vest within 60 days of March 31, 2024 or for which vesting will be accelerated in connection with this offering.
(6) Consists of 41,250 RSUs that vest within 60 days of March 31, 2024 or for which vesting will be accelerated in connection with this offering.
(7) Consists of 5,156 RSUs that vest within 60 days of March 31, 2024. An additional 8,282 RSUs will vest on June 30, 2024 if Dr. Lee remains a director as of such date.
(8) Consists of 5,625 RSUs that vest within 60 days of March 31, 2024. An additional 10,546 RSUs will vest on June 30, 2024 if Mr. Molloie remains a director as of such date.
(9) Consists of 9,726 RSUs that vest within 60 days of March 31, 2024. An additional 20,243 RSUs will vest on June 30, 2024 if Mr. Ngai remains a director as of such date.
(10) Consists of 5,156 RSUs that vest within 60 days of March 31, 2024. An additional 8,282 RSUs will vest on June 30, 2024 if Dr. Rhines remains a director as of such date.
(11) Consists of 5,156 RSUs that vest within 60 days of March 31, 2024. An additional 8,282 RSUs will vest on June 30, 2024 if Ms. Shelton remains a director as of such date.
(12) Represents 10,177,114 shares of common stock and 665,105 RSUs beneficially owned by our current directors and executive officers that vest within 60 days of March 31, 2024.

DESCRIPTION OF CAPITAL STOCK

The following is a summary of the material rights of our common and preferred stock and some of the provisions of our amended and restated certificate of incorporation and amended and restated bylaws, which will become effective as of immediately prior to the completion of this offering, and of the DGCL. This summary is not complete. For more detailed information, please see our amended and restated certificate of incorporation and amended and restated bylaws, which are filed as exhibits to the registration statement of which this prospectus is a part, as well as the relevant provisions of the DGCL.

General

Upon completion of this offering and upon the filing of our amended and restated certificate of incorporation, our authorized capital stock will consist of 500,000,000 shares of common stock, $0.0001 par value per share, and 10,000,000 shares of preferred stock, $0.0001 par value per share. All of our authorized preferred stock upon completion of this offering will be undesignated. The information below gives effect to a 1-for-2 reverse split of our common stock, which we effected on April 29, 2024.

Common Stock

Outstanding Shares

As of December 31, 2023, 20,000,000 shares of our common stock were outstanding. Upon completion of this offering and assuming no exercise by the underwriters of their option to purchase additional shares, 28,545,663 shares of common stock will be outstanding.

Voting

Holders of shares of our common stock will be entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders, including the election of directors, and does not have cumulative voting rights. Accordingly, the holders of a majority of the shares of our common stock entitled to vote in any election of directors can elect all of the directors standing for election.

Dividends

Subject to statutory or contractual restrictions on the payment of dividends and to any preferences that may be applicable to any then outstanding preferred stock, the holders of common stock will be entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds.

Liquidation

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock.

Rights and Preferences

Holders of our common stock will have no preemptive, conversion or subscription rights, and there will be no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock will be subject to, and may be adversely affected by, the rights of the holders of shares of any series of our preferred stock that we may designate and issue in the future.

Fully Paid and Nonassessable

All of our outstanding shares of common stock are, and the shares of common stock to be issued in this offering will be, fully paid and nonassessable.

Preferred Stock

Under our amended and restated certificate of incorporation, our board of directors will have the authority, without further action by the stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the rights, preferences and privileges of the shares of each wholly unissued series and any qualifications, limitations or restrictions thereon, and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other

things, have the effect of delaying, deferring, or preventing a change in our control that may otherwise benefit holders of our common stock and may adversely affect the market price of our common stock and the voting and other rights of the holders of common stock. We have no current plans to issue any shares of preferred stock.

Restricted Stock Units

As of December 31, 2023, 3,398,276 RSUs were outstanding. As of December 31, 2023, there were 4,000,000 shares of common stock available for future issuance under the 2014 Plan. For additional information regarding terms of the 2014 Plan, see "Executive Compensation—2014 Stock Incentive Plan." Upon the consummation of this offering, 3,425,278 shares of our common stock may be granted under our 2024 Plan, which may be increased by up to 297,505 shares that remained available for grant under our 2014 Plan upon its termination or that are subject to RSUs granted under our 2014 Plan that may expire or terminate without having been exercised or settled in full and may be added to the reserve under the 2024 Plan.

Registration Rights

Our existing stockholders have certain registration rights with respect to our common stock pursuant to the Registration Rights Agreement. See "Certain Relationships and Related Person Transactions—Registration Rights Agreement."

Anti-Takeover Effects of Provisions of Our Certificate of Incorporation, Our Bylaws and Delaware Law

Our amended and restated certificate of incorporation and our amended and restated bylaws, as they will be in effect immediately prior to the closing of this offering, will contain provisions that may delay, defer or discourage another party from acquiring control of us. We expect that these provisions, which are summarized below, will discourage coercive takeover practices or inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors, which we believe may result in an improvement of the terms of any such acquisition in favor of our stockholders. However, they also give our board of directors the power to discourage acquisitions that some stockholders may favor.

Delaware Anti-Takeover Law

We will be subject to Section 203 of the DGCL, or Section 203. Section 203 generally prohibits a public Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding (but not the outstanding voting stock owned by the interested stockholder) shares owned by persons who are directors and also officers and by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- upon or subsequent to the consummation of the transaction, the business combination is approved by the board and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation to or with the interested stockholder;
- subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation owned by the interested stockholder;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder; and
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Because our stockholders do not have cumulative voting rights, our stockholders holding a majority of the voting power of our shares of common stock outstanding will be able to elect all of our directors. Our amended and restated certificate of incorporation and amended and restated bylaws to be effective upon completion of this offering will provide that, after Pesic Family. cease to beneficially own, in the aggregate, at least 50% of the voting power of the outstanding shares of our common stock, all stockholder actions must be effected at a duly called meeting of stockholders and not by written consent. Further, for so long as the Stockholders Agreement remains in effect and the Pesic Family owns in the aggregate, at least 25% of the voting power of the then outstanding shares of our capital stock, the prior written approval or consent of the Pesic Family shall be required for us to (i) implement any amendments to our charter or bylaws that would adversely affect the Pesic Family's rights thereunder, (ii) effect or consummate a change of control or approve another merger, consolidation, business combination, sale or acquisition that results in changes in the rights and privileges of holders of equity securities, and (iii) effect the liquidation or dissolution or winding up of our business operations. A special meeting of stockholders may be called by the majority of our board of directors, chair of our board of directors, our President, or our Chief Executive Officer. These provisions may have the effect of deferring, delaying or discouraging hostile takeovers, or changes in control of us or our management.

In addition, our amended and restated certificate of incorporation and amended and restated bylaws will provide that the number of directors constituting our board of directors will be permitted to be set only by a resolution adopted by a majority vote of the members of our board of directors then in office, and that our directors may be removed only for cause. Our amended and restated certificate of incorporation and amended and restated bylaws will also provide that vacancies occurring on our board of directors and newly created directorships resulting from an increase in the authorized number of directors may be filled only by vote of a majority of the remaining members of our board of directors, even though less than a quorum. Our amended and restated certificate of incorporation and amended and restated bylaws will provide that our board of directors is expressly authorized to adopt, amend or repeal our bylaws, and require a 66 2/3% stockholder vote to amend our bylaws and certain provisions of our certificate of incorporation.

Our amended and restated bylaws will provide advance notice procedures for stockholders seeking to bring business before our annual meeting of stockholders or to nominate candidates for election as directors at our annual meeting of stockholders. Our amended and restated bylaws will also specify certain requirements regarding the form and content of a stockholder notice. These provisions might preclude our stockholders from bringing matters before our annual meeting of stockholders or from making nominations for directors at our annual meeting of stockholders if the proper procedures are not followed. We expect that these provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of us.

The foregoing provisions will make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Since our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage certain types of transactions that may involve an actual or threatened acquisition of us. These provisions are also designed to reduce our vulnerability to an unsolicited acquisition proposal and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and may have the effect of deterring hostile takeovers or delaying changes in our control or management. As a consequence, these provisions also may inhibit fluctuations in the market price of our stock that could result from actual or rumored takeover attempts.

Choice of Forum

Our amended and restated certificate of incorporation and our amended and restated bylaws will provide that the Court of Chancery of the State of Delaware (or, if that court lacks subject matter jurisdiction, another federal or state court situated in the State of Delaware) will be the exclusive forum for any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action asserting a claim against us arising pursuant to the DGCL, our amended and restated certificate of incorporation, or our bylaws, or any issue, in one or more series, of all or any of the remaining shares of preferred stock, and, in the resolution or resolutions providing for such issue; any action to interpret, apply, enforce, or determine the validity of our certificate of incorporation or our bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. If any such action is filed in a court other than a court located within the State of Delaware, or a Foreign Action, in the name of any stockholder, that stockholder shall be deemed to have consented to: (x) the personal jurisdiction of the state and federal courts located

within the State of Delaware in connection with any action brought in any such court to enforce our choice of forum, or an Enforcement Action, and (y) having service of process made upon such stockholder in any such Enforcement Action by service upon such stockholder's counsel in the Foreign Action as agent for such stockholder, in each case, to the fullest extent permitted by law. In addition, our amended and restated certificate of incorporation and our amended and restated bylaws will provide that, unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America will be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act. Such provision is intended to benefit and may be enforced by us, our officers and directors, employees and agents, including the underwriters and any other professional or entity who has prepared or certified any part of this prospectus. Although our amended and restated certificate of incorporation and amended and restated bylaws will contain the choice of forum provisions described above, it is possible that a court could find one or more of these provisions inapplicable for a particular claim or action or that such provision is unenforceable. Further, Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. As a result, the exclusive forum provision will not apply to suits brought to enforce any duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction.

Nothing in our amended and restated certificate of incorporation or amended and restated bylaws preclude stockholders that assert claims under the Exchange Act from bringing such claims in state or federal court, subject to applicable law. Any person or entity purchasing or otherwise acquiring any interest in any of our securities will be deemed to have notice of and consented to the provisions of amended and restated certificate of incorporation or amended and restated bylaws described above. Although we believe these provisions benefit us by providing increased consistency in the application of Delaware law for the specified types of actions and proceedings, the provisions may have the effect of discouraging lawsuits against us or our directors and officers. The enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be inapplicable or unenforceable. See "Risk Factors—Risks Related to This Offering and Ownership of Our Common Stock—Our amended and restated charter and bylaws that will be in effect upon the closing of this offering will designate the Court of Chancery of the State of Delaware as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, and provides that federal district courts will be the sole and exclusive forum for Securities Act claims, which could limit our stockholders' ability to obtain what they believe to be a favorable judicial forum for disputes with us or our directors, officers or other employees."

Listing

We have applied to list our common stock on Nasdaq under the symbol "SVCO."

Transfer Agent and Registrar

Upon the closing of this offering, the transfer agent and registrar for our common stock will be Equiniti Trust Company, LLC (f/k/a American Stock Transfer & Trust Company, LLC). The transfer agent and registrar's address is 55 Challenger Road, Ridgefield Park, New Jersey 07660 and the telephone number is (800) 937-5449.

SHARES ELIGIBLE FOR FUTURE SALE

Immediately prior to this offering, there has been no public market for our common stock. Future sales of substantial amounts of our common stock in the public market, or the perception that such sales may occur, could adversely affect prevailing market prices. Furthermore, since only a limited number of shares will be available for sale shortly after this offering because of contractual and legal restrictions on resale described below, sales of substantial amounts of common stock in the public market after the restrictions lapse could adversely affect the prevailing market price for our common stock as well as our ability to raise equity capital in the future.

Based on the number of shares of common stock outstanding as of December 31, 2023, upon completion of this offering, 28,545,663 shares of common stock will be outstanding (after giving effect to a 1-for-2 reverse split of our common stock, which we effected on April 29, 2024), assuming no exercise of the underwriters' option to purchase additional shares. All of the shares sold in this offering, as well as the 310,562 shares of our common stock issuable upon the mandatory conversion of the Micron Note (based on the midpoint of the range as set forth on the cover page of the prospectus) and that may be offered for resale from time to time under the Selling Stockholder Resale Prospectus, will be freely tradable unless purchased by our "affiliates" as that term is defined in Rule 144 under the Securities Act. The 20,000,000 shares of common stock outstanding prior to this offering are restricted as a result of securities laws or lock-up agreements. These shares will generally become eligible for sale under Rule 144, subject to the volume limitations, manner-of-sale, and notice provisions described below under "Rule 144," upon expiration of lock-up agreements at least six months after the date of this offering.

Subject to the provisions of Rules 144 and 701 under the Securities Act and the lock-up agreements described below, these restricted securities will be available for sale in the public market as follows:

Days After Date of this Prospectus	Shares Eligible for Sale	Comment
Date of Prospectus		Shares resold in this offering and shares offered for resale under Selling Stockholder Resale Prospectus
180 Days		Lock-up released; shares available for sale under Rules 144 and 701

Rule 144

In general, under Rule 144 as currently in effect, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, any person who is not an affiliate of ours and has held their shares for at least six months, including the holding period of any prior owner other than one of our affiliates, may sell shares without restriction, provided current public information about us is available. In addition, under Rule 144, any person who is not an affiliate of ours and has held their shares for at least one year, including the holding period of any prior owner other than one of our affiliates, would be entitled to sell an unlimited number of shares immediately upon completion of this offering without regard to whether current public information about us is available.

Beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is an affiliate of ours and who has beneficially owned restricted securities for at least six months, including the holding period of any prior owner other than one of our affiliates, is entitled to sell a number of restricted shares within any three-month period that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately shares immediately after this offering; or
- the average weekly trading volume of our common stock on during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

Sales of restricted shares under Rule 144 held by our affiliates are also subject to requirements regarding the manner-of-sale, notice, and the availability of current public information about us. Rule 144 also provides that affiliates relying on Rule 144 to sell shares of our common stock that are not restricted shares must nonetheless comply with the same restrictions applicable to restricted shares, other than the holding period requirement.

Notwithstanding the availability of Rule 144, substantially all of our stockholders, as well as our directors and executive officers, have entered into lock-up agreements as described below and any restricted shares held by them will become eligible for sale at the expiration of the restrictions set forth in those agreements. After these contractual resale restrictions lapse, such stockholders and our directors and executive officers will be able to sell some or all of their shares of our common stock, subject only to applicable restrictions under federal and state securities laws.

Rule 701

Under Rule 701, shares of common stock acquired rights granted under compensatory stock plans may be resold by:

- persons other than affiliates, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, subject only to the manner-of-sale provisions of Rule 144; and
- our affiliates, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, subject to the manner-of-sale and volume limitations, current public information, and filing requirements of Rule 144, in each case, without compliance with the six-month holding period requirement of Rule 144.

Selling Stockholder Resale Prospectus

As described in the Explanatory Note to the registration statement of which this prospectus forms a part, the registration statement also contains the Selling Stockholder Resale Prospectus to be used in connection with the potential resale by Micron of the shares of our common stock issued pursuant to the mandatory conversion of the Micron Note. The Micron Note will mandatorily convert upon the consummation of the initial public offering for which this prospectus relates into a number of shares equal to (i) the outstanding principal amount and accrued interest divided by (ii) a conversion price equal to (a) the price to the public set forth on the front cover of this prospectus, times (b) 0.90 if the initial public offering of common stock is consummated on or prior to May 31, 2024; 0.85 if the initial public offering of common stock is consummated between June 1, 2024 and April 16, 2025; and 0.80 if the initial public offering of common stock is consummated after April 16, 2025, if in each case such shares of our common stock will be eligible for resale pursuant to the registration statement of which this prospectus forms a part. Pursuant to the convertible note purchase agreement, these shares of common stock have been registered to permit public resale of such shares, and Micron may offer the shares for resale from time to time pursuant to the Selling Stockholder Resale Prospectus. Micron may also sell, transfer or otherwise dispose of all or a portion of its shares in transactions exempt from the registration requirements of the Securities Act or pursuant to another effective registration statement covering those shares. Assuming that this offering is consummated prior to May 31, 2024 and assuming an initial offering price of $18.00 per share (the midpoint of the price range set forth on the cover page of this prospectus), the Micron Note will convert into 310,562 shares of our common stock. Micron is not subject to any lock-up being entered into in connection with the initial public offering to which this prospectus relates.

Lock-Up Agreements

We, our executive officers, directors and the holders of substantially all of our outstanding stock and RSUs have entered into or will enter into lock-up agreements with the underwriters agreeing not to dispose of or hedge any of their common stock or securities convertible into or exchangeable for shares of common stock during the Restricted Period, subject to certain exceptions. Jefferies LLC may, in its sole discretion, permit early release of shares subject to the lock-up agreements.

Upon the expiration of the lock-up period, substantially all of the shares subject to such lock-up restrictions will become eligible for sale, subject to the limitations discussed above. For a further description of these lock-up agreements, please see “Underwriting.”

Form S-8 Registration Statements

As of December 31, 2023, a total of 3,398,276 shares of common stock were subject to outstanding RSUs under the 2014 Plan. In addition, following the completion of this offering 3,425,278 shares of our common stock may be granted under our 2024 Plan, which may be increased by up to 4,000,000 shares that remained available for grant under our 2014 Plan upon its termination or that are subject to awards granted under our 2014 Plan that may expire or terminate without having been exercised or settled in full and may be added to the reserve under the 2024 Plan, and 312,500 shares of our common stock may be granted under our ESPP, which amounts may be subject to annual adjustment. As soon as practicable after the completion of this offering, we intend to file with the SEC one or more registration statements on Form S-8 under the Securities Act to register the offer and sale of shares of our common stock that are issuable pursuant to the 2014 Plan, the 2024 Plan and the ESPP. These registrations statements will become effective immediately upon filing. Shares covered by these registration statements will then be eligible for sale in the public markets, subject to vesting restrictions, any applicable lock-up agreements described above and Rule 144 limitations applicable to affiliates.

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS OF OUR COMMON STOCK

The following is a summary of the material U.S. federal income tax consequences of the acquisition, ownership, and disposition of common stock acquired pursuant to this offering by non-U.S. holders (as defined below). This summary assumes that the shares of our common stock are held as capital assets (within the meaning of Section 1221 of the Code, which generally means property held for investment). This summary does not discuss all of the U.S. federal income tax considerations applicable to a non-U.S. holder that is subject to special treatment under U.S. federal income tax laws, including, but not limited to: a dealer in securities or currencies; a broker-dealer; a financial institution; a qualified retirement plan, an individual retirement plan, or other tax-deferred account; a regulated investment company; a real estate investment trust; a tax-exempt organization; an insurance company; a person holding common stock as part of a hedging, integrated, conversion, or straddle transaction or a person deemed to sell common stock under the constructive sale provisions of the Code; a trader in securities that has elected the mark-to-market method of tax accounting; an entity that is treated as a partnership or other pass-through entity for U.S. federal income tax purposes (and partners or beneficial owners therein); a person that received such common stock pursuant to the exercise of employee stock options or otherwise in connection with services provided; a former citizen or long-term resident of the United States; a corporation that accumulates earnings to avoid U.S. federal income tax; a corporation organized outside the United States, any state thereof or the District of Columbia that is nonetheless treated as a U.S. corporation for U.S. federal income tax purposes; a person that is not a non-U.S. holder; a person that owns, or is deemed to own, more than 5% of such common stock (other than as specifically provided below); a “controlled foreign corporation;” or a “passive foreign investment company.”

This summary is based upon provisions of the Code, its legislative history, applicable U.S. Treasury Regulations promulgated thereunder, published rulings, and judicial decisions, all as in effect as of the date hereof. Those authorities may be repealed, revoked, or modified, perhaps retroactively, or may be subject to differing interpretations, which could result in U.S. federal income tax consequences different from those discussed below. We have not sought, and will not seek, any ruling from the Internal Revenue Service, or the IRS, with respect to the tax consequences discussed herein, and there can be no assurance that the IRS will not take a position contrary to the tax consequences discussed below or that any position taken by the IRS would not be sustained. This summary does not address all aspects of U.S. federal income tax, does not deal with all tax considerations that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder’s circumstances, and does not address the Medicare tax imposed on certain investment income, the special tax accounting rules applicable to certain accrual method taxpayers under Section 451(b) of the Code, or any state, local, foreign, gift, estate, or alternative minimum tax considerations.

For purposes of this discussion, a “U.S. holder” is a beneficial holder of common stock that is for U.S. federal income tax purposes: (i) an individual who is a citizen or resident of the United States; (ii) a corporation (or any other entity treated as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States, any state thereof or the District of Columbia; (iii) an estate the income of which is subject to U.S. federal income taxation regardless of its source; or (iv) a trust if it (1) is subject to the primary supervision of a court within the United States and one or more U.S. persons have the authority to control all substantial decisions of the trust, or (2) was in existence on August 20, 1996 and has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a U.S. person.

For purposes of this discussion, a “non-U.S. holder” is a beneficial owner of our common stock that is neither a U.S. holder nor a partnership (or any other entity or arrangement that is treated as a partnership) for U.S. federal income tax purposes regardless of its place of organization or formation. If a partnership (or other entity or arrangement that is treated as a partnership for U.S. federal income tax purposes) holds our common stock, the tax treatment of a partner will generally depend upon the status of the partner and the activities of the partnership. A partner of a partnership holding our common stock is urged to consult its tax advisors as to the particular U.S. federal income tax consequences applicable to it.

PROSPECTIVE INVESTORS ARE URGED TO CONSULT THEIR TAX ADVISORS CONCERNING THE U.S. FEDERAL INCOME, ESTATE, AND OTHER TAX CONSEQUENCES OF ACQUIRING, OWNING, AND DISPOSING OF OUR COMMON STOCK IN LIGHT OF THEIR SPECIFIC SITUATIONS, AS WELL AS THE TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL, OR NON-U.S. TAX LAWS, ANY APPLICABLE INCOME TAX TREATIES, AND ANY OTHER U.S. FEDERAL TAX LAWS (INCLUDING THE U.S. FEDERAL ESTATE AND GIFT TAX LAWS).

Distributions on Our Common Stock

Distributions with respect to common stock, if any, generally will constitute dividends for U.S. federal income tax purposes to the extent paid out of our current or accumulated earnings and profits, as determined for U.S. federal income tax purposes. Any portion of a distribution in excess of our current or accumulated earnings and profits will be treated as a tax-free return of capital and will first be applied to reduce the non-U.S. holder's tax basis in its common stock, but not below zero. Any remaining amount will then be treated as gain from the sale or exchange of the common stock and will be treated as described under "—Disposition of Our Common Stock" below.

Distributions treated as dividends that are paid to a non-U.S. holder, if any, with respect to shares of our common stock will be subject to U.S. federal withholding tax at a rate of 30% (or such lower rate as may be specified in an applicable income tax treaty between the United States and such holder's country of residence) of the gross amount of the dividends unless the dividends are effectively connected with the non-U.S. holder's conduct of a trade or business in the United States, subject to the discussion below regarding foreign accounts. If a non-U.S. holder is engaged in a trade or business in the United States and dividends with respect to the common stock are effectively connected with the conduct of that trade or business and, if required by an applicable income tax treaty, are attributable to a U.S. permanent establishment or fixed base, then although the non-U.S. holder generally will be exempt from the 30% U.S. federal withholding tax, provided certain certification requirements are satisfied, the non-U.S. holder will be subject to U.S. federal income tax on those dividends on a net income basis at regular U.S. federal income tax rates in the same manner as if such holder were a resident of the United States. Any such effectively connected income received by a foreign corporation may, under certain circumstances, be subject to an additional branch profits tax equal to 30% (or lower applicable income tax treaty rate between the United States and such holder's country of residence) of its effectively connected earnings and profits for the taxable year, as adjusted under the Code. To claim the exemption from withholding with respect to any such effectively connected income, the non-U.S. holder must generally furnish to us or our paying agent a properly executed IRS Form W-8ECI (or applicable successor form). In the case of a non-U.S. holder that is an entity, U.S. Treasury Regulations and the applicable income tax treaty provide rules to determine whether, for purposes of determining the applicability of an income tax treaty, dividends will be treated as paid to the entity or to those holding an interest in that entity. If a non-U.S. holder holds our common stock through a financial institution or other agent acting on the holder's behalf, the non-U.S. holder will be required to provide appropriate documentation to such agent. Such non-U.S. holder's agent will then be required to provide certification to us or our paying agent.

A non-U.S. holder of our common stock that wishes to claim the benefit of a reduced rate of withholding tax under an applicable income tax treaty between the United States and such holder's country of residence generally will be required to furnish to us or our paying agent a properly executed valid IRS Form W-8BEN or IRS Form W-8BEN-E (or applicable successor form) certifying such holder's qualification for the exemption or reduced rate. If a non-U.S. holder is eligible for a reduced rate of U.S. federal withholding tax pursuant to an income tax treaty and such non-U.S. holder does not timely file the required certification, it may obtain a refund or credit of any excess amounts withheld by timely filing a U.S. tax return with the IRS. Non-U.S. holders are urged to consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

Disposition of Our Common Stock

Subject to the discussion below regarding backup withholding, a non-U.S. holder generally will not be subject to U.S. federal income tax on any gain from a sale, exchange or other disposition of our common stock unless: (a) that gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States (and, if required by an applicable income tax treaty, is attributable to a U.S. permanent establishment or a fixed-base maintained by the non-U.S. holder); (b) the non-U.S. holder is a nonresident alien individual who is present in the United States for 183 days or more in the taxable year of that disposition, and certain other conditions are met; or (c) we are or have been a "United States real property holding corporation" within the meaning of Code Section 897(c)(2) for U.S. federal income tax purposes at any time during the shorter of the five-year period preceding the date of disposition or the holder's holding period for our common stock, and certain other requirements are met. Although there can be no assurance, we believe that we are not, and we do not anticipate becoming, a United States real property holding corporation for U.S. federal income tax purposes. Even if we are treated as a United States real property holding corporation, gain realized by a non-U.S. holder on a disposition of our common stock will not be subject to U.S. federal income tax so long as (1) the non-U.S. holder owned, directly, indirectly, actually or constructively, no more than 5% of our common stock at all times within the shorter of (x) the five-year period preceding the disposition, or (y) the non-U.S. holder's holding period, and (2) our common stock is regularly traded on an established securities market, as defined in applicable U.S. Treasury Regulations. Although Nasdaq qualifies as an established securities market, there can be no assurance that our common stock will continue to qualify as regularly traded on an established securities market. If a non-U.S. holder's gain on disposition of our common stock is taxable because we are a United States real property holding corporation and such non-U.S. holder's ownership of our common stock exceeds 5%, such non-U.S. holder will be taxed on such disposition generally in the manner applicable to U.S.

persons and in addition, a purchaser of such non-U.S. holder's common stock may be required to withhold tax with respect to that obligation.

If a non-U.S. holder is described in clause (a) of the preceding paragraph, the non-U.S. holder will generally be subject to tax on the net gain derived from the disposition at the regular U.S. federal income tax rates in the same manner as if such non-U.S. holder were a U.S. person, unless an applicable income tax treaty provides otherwise. In addition, a non-U.S. holder that is a corporation may be subject to the branch profits tax at a rate equal to 30% (or lower applicable income tax treaty rate) of its effectively connected earnings and profits. If the non-U.S. holder is an individual described in clause (b) of the preceding paragraph, the non-U.S. holder will generally be subject to a flat 30% tax on the gain derived from the disposition, which may be offset by U.S. source capital losses even though the non-U.S. holder is not considered a resident of the United States, provided that the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses. Non-U.S. holders are urged to consult their tax advisors about any applicable income tax treaties that may provide for different rules.

Information Reporting and Backup Withholding Tax

We report to our non-U.S. holders and the IRS certain information with respect to any distribution we make on our common stock, including the gross amount of the distribution paid during each fiscal year, the name and address of the recipient, and the amount, if any, of tax withheld. All distributions to holders of common stock are subject to any applicable withholding. Information reporting requirements generally apply even if no withholding was required because the distributions were effectively connected with the non-U.S. holder's conduct of a U.S. trade or business or withholding was reduced by an applicable income tax treaty. This information also may be made available under a specific treaty or agreement with the tax authorities in the country in which the non-U.S. holder resides or is established. Under U.S. federal income tax law, interest, dividends, and other reportable payments may, under certain circumstances, be subject to "backup withholding" at the then applicable rate (currently, 24%). Backup withholding, however, generally will not apply to distributions on our common stock to a non-U.S. holder, provided the non-U.S. holder furnishes to us or our paying agent the required certification as to its non-U.S. status, such as by providing a valid IRS Form W-8BEN, IRS Form W-8BEN-E or IRS Form W-8ECI, or certain other requirements are met. Notwithstanding the foregoing, backup withholding may apply if either we or our paying agent has actual knowledge, or reason to know, that the holder is a U.S. person that is not an exempt recipient. Backup withholding is not an additional tax and any amounts withheld under the backup withholding rules will be allowed as a refund or a credit against a non-U.S. holder's U.S. federal income tax liability, if any, provided the required information is timely furnished to the IRS.

Foreign Accounts

Provisions of the Code commonly referred to as the Foreign Account Tax Compliance Act, or FATCA, generally impose certain withholding taxes on certain types of payments made to "foreign financial institutions" (as specially defined under these rules) and certain other non-U.S. entities if certification, information reporting and other specified requirements are not met. A 30% withholding tax may apply to certain "withholdable payments" made to a "foreign financial institution" or to a "non-financial foreign entity," (as defined under FATCA) unless (a) the "foreign financial institution" undertakes certain diligence and reporting obligations and other specified requirements are satisfied, (b) the non-financial foreign entity either certifies it does not have any substantial U.S. owners or furnishes identifying information regarding each substantial U.S. owner and other specified requirements are satisfied, or (c) the foreign entity is otherwise exempt under FATCA. If the payee is a foreign financial institution, it must enter into an agreement with the U.S. Treasury requiring, among other things, that it undertake to identify accounts held by certain U.S. persons or U.S.-owned foreign entities, annually report certain information about such accounts and withhold 30% on payments to account holders whose actions prevent it from complying with these reporting and other requirements, or comply with comparable requirements under an applicable inter-governmental agreement between the United States and the foreign financial institution's home jurisdiction. "Withholdable payments" under FATCA generally include dividends on our common stock. Under proposed U.S. Treasury Regulations, on which taxpayers (including withholding agents) generally are permitted to rely pending finalization, FATCA withholding will not apply to gross proceeds from the sale or other disposition of our common stock. Holders should consult their own tax advisers regarding the implications of these rules on their investment in our common stock and the entities through which they hold our common stock, including without limitation, the process and deadlines for meeting the applicable requirements to avoid the imposition of the 30% withholding tax under FATCA.

UNDERWRITING

Subject to the terms and conditions set forth in the underwriting agreement, dated , 2024, among us, Jefferies LLC and TD Securities (USA) LLC, as the representatives of the underwriters named below and the joint book-running managers of this offering, we have agreed to sell to the underwriters, and each of the underwriters has agreed, severally and not jointly, to purchase from us the respective number of shares of common stock shown opposite its name below:

UNDERWRITER	NUMBER OF SHARES
Jefferies LLC	
TD Securities (USA) LLC	
B. Riley Securities, Inc.	
Craig-Hallum Capital Group LLC	
Rosenblatt Securities Inc.	
Total	6,000,000

The underwriting agreement provides that the obligations of the several underwriters are subject to certain conditions precedent such as the receipt by the underwriters of officers' certificates and legal opinions and approval of certain legal matters by their counsel. The underwriting agreement provides that the underwriters will purchase all of the shares of common stock if any of them are purchased. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased or the underwriting agreement may be terminated. We have agreed to indemnify the underwriters and certain of their controlling persons against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the underwriters may be required to make in respect of those liabilities.

The underwriters have advised us that, following the completion of this offering, they currently intend to make a market in the common stock as permitted by applicable laws and regulations. However, the underwriters are not obligated to do so, and the underwriters may discontinue any market-making activities at any time without notice in their sole discretion. Accordingly, no assurance can be given as to the liquidity of the trading market for the common stock, that you will be able to sell any of the common stock held by you at a particular time or that the prices that you receive when you sell will be favorable.

The underwriters are offering the shares of common stock subject to their acceptance of the shares of common stock from us and subject to prior sale. Sales of any shares of may be made by affiliates of the underwriters. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part. In addition, the underwriters have advised us that they do not intend to confirm sales to any account over which they exercise discretionary authority except sales to accounts over which they have discretionary authority to exceed 5% of the common stock being offered.

Commission and Expenses

The underwriters have advised us that they propose to offer the shares of common stock to the public at the initial public offering price set forth on the cover page of this prospectus and to certain dealers, which may include the underwriters, at that price less a concession not in excess of $ per share of common stock. The underwriters may allow, and certain dealers may reallow, a discount from the concession not in excess of $ per share of common stock to certain brokers and dealers. After the offering, the initial public offering price, concession and reallowance to dealers may be reduced by the representatives. No such reduction will change the amount of proceeds to be received by us as set forth on the cover page of this prospectus.

The following table shows the public offering price, the underwriting discounts and commissions that we are to pay the underwriters and the proceeds, before expenses, to us in connection with this offering. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

	Per Share		Total	
	Without Option to Purchase Additional Shares	With Option to Purchase Additional Shares	Without Option to Purchase Additional Shares	With Option to Purchase Additional Shares
Public offering price	$	$	$	$
Underwriting discounts and commissions paid by us	$	$	$	$
Proceeds to us, before expenses	$	$	$	$

We estimate expenses payable by us in connection with this offering, other than the underwriting discounts and commissions referred to above, will be approximately $5.9 million. We have also agreed to reimburse the underwriters for their expenses related to clearance of this offering with the Financial Industry Regulatory Authority, Inc., or FINRA, including the related fees and expenses of counsel for the underwriters up to $40,000. In accordance with FINRA Rule 5110, this reimbursed fee is deemed underwriting compensation for this offering.

Determination of Offering Price

Prior to this offering, there has not been a public market for our common stock. Consequently, the initial public offering price for our common stock will be determined by negotiations between us and the representatives. Among the factors to be considered in these negotiations will be prevailing market conditions, our financial information, market valuations of other companies that we and the underwriters believe to be comparable to us, estimates of our business potential, the present state of our development and other factors deemed relevant.

We offer no assurances that the initial public offering price will correspond to the price at which the common stock will trade in the public market subsequent to the offering or that an active trading market for the common stock will develop and continue after the offering.

Listing

We have applied to list our common stock on Nasdaq under the trading symbol "SVCO."

Option to Purchase Additional Shares

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase, from time to time, in whole or in part, up to an aggregate of 900,000 shares from us at the public offering price set forth on the cover page of this prospectus, less underwriting discounts and commissions. If the underwriters exercise this option, each underwriter will be obligated, subject to specified conditions, to purchase a number of additional shares proportionate to that underwriter's initial purchase commitment as indicated in the table above. This option may be exercised only if the underwriters sell more shares than the total number set forth on the cover page of this prospectus.

No Sales of Similar Securities

We, our officers, directors and holders of all or substantially all our outstanding capital stock and other securities have agreed, subject to specified exceptions, not to directly or indirectly:

- sell, offer, contract or grant any option to sell (including any short sale), pledge, transfer, establish an open "put equivalent position" within the meaning of Rule 16a-1(h) under the Exchange Act of 1934; or
- sell or offer to sell any shares of common stock, options, warrants or other rights to acquire shares of common stock of any securities exchangeable or exercisable for or convertible into shares of common stock, or to acquire other securities or rights ultimately exchangeable or exercisable for or convertible into shares of common stock currently or hereafter owned either or record or beneficially (as defined in Rule 13d-3 under the Exchange Act) by such individual or their family member;
- enter into any swap;
- make any demand for, or exercise any right with respect to, the registration under the Securities Act of the offer and sale of any shares of common stock, options, warrants or other rights to acquire shares of common stock or any securities exchangeable or exercisable for or convertible into shares of common stock, or to acquire other securities or rights ultimately exchangeable or exercisable for or convertible into shares of common stock, or cause to be filed a registration statement, prospectus or prospectus supplement (or an amendment or supplement thereto) with respect to any such registration; or

- publicly announce an intention to do any of the foregoing during the Restricted Period without the prior written consent of Jefferies LLC.

The restrictions on our directors, officers, and the holders of all of our outstanding equity securities described in the immediately preceding paragraph are subject to certain exceptions, including:

- transfers of common stock or securities convertible into or exercisable or exchangeable for shares of common stock by gift, including to a bona fide charitable organization, or by will or intestate succession to the legal representative, heir or beneficiary of the undersigned or any family member (as defined in the lock-up agreement) or to a trust whose beneficiaries consist exclusively of one or more of the undersigned and/or a family member;
- transfers of common stock or securities convertible into or exercisable or exchangeable for shares of common stock pursuant to a domestic order or negotiated divorce settlement; provided that any filing under Section 16(a) of the Exchange Act shall clearly indicate in the footnotes thereto that the transfer is pursuant to a domestic order or negotiated divorce settlement, that no shares were sold by the reporting person and no other public announcement shall be required or shall be made voluntarily in connection with such exercise;
- if the signatory is a corporation, partnership, limited liability company, trust or other business entity, distributions or transfers of shares of common stock or securities convertible into or exercisable or exchangeable for shares of common stock to (x) another corporation, partnership, limited liability company, trust or other business entity that is a direct or indirect affiliate (as defined in Rule 405 promulgated under the Securities Act) of the signatory, (y) any investment fund or other entity controlling, controlled by, managing or managed by or under common control with the signatory or affiliates of the signatory, or (z) limited partners, general partners, members, managers, managing members, stockholders, beneficiaries or other equity holders of the signatory or of the entities described in the preceding clauses (x) and (y); provided that such transfer shall not involve a disposition for value and provided further that, if required, any public report or filing under Section 16(a) of the Exchange Act with regards to such transfer shall clearly indicate in the footnotes thereto that the filing relates to the circumstances described in this clause, that no shares were sold by the reporting person and no other public announcement shall be required or shall be made voluntarily in connection with such transfer;
- transfers or dispositions of shares to us as forfeitures or the withholding of shares (x) to satisfy tax withholding and remittance obligations of the signatory in connection with the vesting or exercise of equity awards granted pursuant to our equity incentive plans described herein or (y) pursuant to a net exercise or cashless exercise by the undersigned of outstanding equity awards pursuant to our equity incentive plans described herein; provided that the shares issued upon such exercise or vesting shall continue to be subject to the restrictions on transfer set forth in the lock-up agreement; and provided further, that, if required, any public report or filing under Section 16 of the Exchange Act shall clearly indicate in the footnotes thereto that the filing relates to the net settlement of an equity award or the withholding of shares is to satisfy tax withholding, as applicable, that no shares were sold by the reporting person and that shares received upon exercise or vesting are subject to the lock-up agreement;
- transfers of shares or securities convertible into or exercisable or exchangeable for shares of common stock pursuant to a change of control of us (meaning the consummation of any bona fide third party tender offer, merger, consolidation or other similar transaction made to all holders of shares the result of which is that any “person” (as defined in Section 13(d)(3) of the Exchange Act), or group of persons, becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 of the Exchange Act) of more than 50% of the voting capital stock of us) after this offering that has been approved by the independent members of our board of directors, provided that in the event that such change of control is not completed, the shares or securities convertible into or exercisable or exchangeable for shares of common stock owned by the signatory shall remain subject to the restrictions in the lock-up agreement;
- transfers of shares or securities convertible into or exercisable or exchangeable for shares of common stock to us as a result of the termination of employment of the signatory pursuant to agreements that are in effect as of the date of the underwriting agreement for this offering and disclosed herein, under which we have the option to repurchase such shares or securities convertible into or exercisable or exchangeable for shares of common stock or a right of first refusal with respect to transfers of such shares or securities convertible into or exercisable or exchangeable for shares of common stock; provided that no filing under the Exchange Act or other public disclosure shall be voluntarily made during the Restricted Period and any filing under the Exchange Act or other public disclosure required to be made during the Restricted Period shall include a statement to the effect that such transfer relates to the circumstances described herein; and
- the establishment or amendment of a written trading plan meeting the requirements or Rule 10b5-1 under the Exchange Act relating to the transfer of shares or securities convertible into or exercisable or exchangeable for shares of common stock, provided that such plan does not provide for any transfers of

shares or securities convertible into or exercisable or exchangeable for shares of common stock during the Restricted Period and any required public disclosure, announcement or filing under the Exchange Act made by us or any person regarding the establishment or amendment of such plan during the Restricted Period shall include a statement that the undersigned is not permitted to transfer, sell or otherwise dispose of securities under such plan during the Restricted Period in contravention of the restrictions set forth in the lock-up agreement, and no public announcement, report or filing under the Exchange Act, or any other public filing, report or announcement, shall be voluntarily made regarding the establishment or amendment of such plan during the Restricted Period.

The restrictions on us described above are subject to certain exceptions, including:

- the sale of the shares to the underwriters in connection with this offering;
- the issuance by us of shares of common stock upon the vesting and settlement of an RSU, or the conversion of any other security outstanding on the date of this prospectus; or
- the issuance of shares of common stock or options to purchase shares common stock granted pursuant to our existing employee benefit plans, stock incentive plans and any employee stock purchase plan referred to in the registration statement of which this prospectus forms a part.

Stabilization

The underwriters have advised us that they, pursuant to Regulation M under the Exchange Act, certain persons participating in the offering may engage in short sale transactions, stabilizing transactions, syndicate covering transactions or the imposition of penalty bids in connection with this offering. These activities may have the effect of stabilizing or maintaining the market price of the common stock at a level above that which might otherwise prevail in the open market. Establishing short sales positions may involve either “covered” short sales or “naked” short sales.

“Covered” short sales are sales made in an amount not greater than the underwriters’ option to purchase additional shares of our common stock in this offering. The underwriters may close out any covered short position by either exercising their option to purchase additional shares of our common stock or purchasing shares of our common stock in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the option to purchase additional shares.

“Naked” short sales are sales in excess of the option to purchase additional shares of our common stock. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares of our common stock in the open market after pricing that could adversely affect investors who purchase in this offering.

A stabilizing bid is a bid for the purchase of shares of common stock on behalf of the underwriters for the purpose of fixing or maintaining the price of the common stock. A syndicate covering transaction is the bid for or the purchase of shares of common stock on behalf of the underwriters to reduce a short position incurred by the underwriters in connection with the offering. Similar to other purchase transactions, the underwriter’s purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. A penalty bid is an arrangement permitting the underwriters to reclaim the selling concession otherwise accruing to a syndicate member in connection with the offering if the common stock originally sold by such syndicate member are purchased in a syndicate covering transaction and therefore have not been effectively placed by such syndicate member.

Neither we, nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. The underwriters are not obligated to engage in these activities and, if commenced, any of the activities may be discontinued at any time.

The underwriters may also engage in passive market making transactions in our common stock on Nasdaq in accordance with Rule 103 of Regulation M during a period before the commencement of offers or sales of shares of our common stock in this offering and extending through the completion of distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker’s bid, that bid must then be lowered when specified purchase limits are exceeded.

Electronic Distribution

A prospectus in electronic format may be made available by e-mail or on the websites or through online services maintained by one or more of the underwriters or their affiliates. In those cases, prospective investors may view offering terms online and may be allowed to place orders online. The underwriters may agree with us to allocate a specific number of shares of common stock for sale to online brokerage account holders. Any such allocation for online distributions will be made by the underwriters on the same basis as other allocations. Other than the prospectus in electronic format, the information on the underwriters' websites and any information contained in any other web site maintained by any of the underwriters is not part of this prospectus, has not been approved and/or endorsed by us or the underwriters and should not be relied upon by investors.

Other Activities and Relationships

The underwriters and certain of their affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. The underwriters and certain of their affiliates have, from time to time, performed, and may in the future perform, various commercial and investment banking and financial advisory services for us and our affiliates, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the underwriters and certain of their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments issued by us and our affiliates. If the underwriters or their respective affiliates have a lending relationship with us, they routinely hedge their credit exposure to us consistent with their customary risk management policies. The underwriters and their respective affiliates may hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities or the securities of our affiliates, including potentially the common stock offered hereby. Any such short positions could adversely affect future trading prices of the common stock offered hereby. The underwriters and certain of their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Disclaimers About Non-U.S. Jurisdictions

Canada

(A) Resale Restrictions

The distribution of shares of common stock in Canada is being made only in the provinces of Ontario, Quebec, Alberta, British Columbia, Manitoba, New Brunswick and Nova Scotia on a private placement basis exempt from the requirement that we prepare and file a prospectus with the securities regulatory authorities in each province where trades of these securities are made. Any resale of the shares of common stock in Canada must be made under applicable securities laws which may vary depending on the relevant jurisdiction, and which may require resales to be made under available statutory exemptions or under a discretionary exemption granted by the applicable Canadian securities regulatory authority. Purchasers are advised to seek legal advice prior to any resale of the securities.

(B) Representations of Canadian Purchasers

By purchasing shares of common stock in Canada and accepting delivery of a purchase confirmation, a purchaser is representing to us and the dealer from whom the purchase confirmation is received that:

- the purchaser is entitled under applicable provincial securities laws to purchase the shares of common stock without the benefit of a prospectus qualified under those securities laws as it is an "accredited investor" as defined under National Instrument 45-106 – Prospectus Exemptions or Section 73.3(1) of the Securities Act (Ontario), as applicable,
- the purchaser is a "permitted client" as defined in National Instrument 31-103 – Registration Requirements, Exemptions and Ongoing Registrant Obligations,
- where required by law, the purchaser is purchasing as principal and not as agent, and
- the purchaser has reviewed the text above under Resale Restrictions.

(C) Conflicts of Interest

Canadian purchasers are hereby notified that each of the underwriters are relying on the exemption set out in section 3A.3 or 3A.4, if applicable, of National Instrument 33-105 – Underwriting Conflicts from having to provide certain conflict of interest disclosure in this document.

(D) Statutory Rights of Action

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if the prospectus (including any amendment thereto) such as this document contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser of these shares of common stock in Canada should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

(E) Enforcement of Legal Rights

All of our directors and officers as well as the experts named herein may be located outside of Canada and, as a result, it may not be possible for Canadian purchasers to effect service of process within Canada upon us or those persons. All or a substantial portion of our assets and the assets of those persons may be located outside of Canada and, as a result, it may not be possible to satisfy a judgment against us or those persons in Canada or to enforce a judgment obtained in Canadian courts against us or those persons outside of Canada.

(F) Taxation and Eligibility for Investment

Canadian purchasers of shares of common stock should consult their own legal and tax advisors with respect to the tax consequences of an investment in the shares of common stock in their particular circumstances and about the eligibility of the shares of common stock for investment by the purchaser under relevant Canadian legislation.

Australia

This prospectus is not a disclosure document for the purposes of Australia's Corporations Act 2001 (Cth) of Australia, or Corporations Act, has not been lodged with the Australian Securities & Investments Commission and is only directed to the categories of exempt persons set out below. Accordingly, if you receive this prospectus in Australia:

a) You confirm and warrant that you are either:

   i. a "sophisticated investor" under section 708(8)(a) or (b) of the Corporations Act;
   ii. a "sophisticated investor" under section 708(8)(c) or (d) of the Corporations Act and that you have provided an accountant's certificate to the company which complies with the requirements of section 708(8)(c)(i) or (ii) of the Corporations Act and related regulations before the offer has been made;
   iii. a person associated with the company under Section 708(12) of the Corporations Act; or
   iv. a "professional investor" within the meaning of section 708(11)(a) or (b) of the Corporations Act.

To the extent that you are unable to confirm or warrant that you are an exempt sophisticated investor, associated person or professional investor under the Corporations Act any offer made to you under this prospectus is void and incapable of acceptance.

b) You warrant and agree that you will not offer any of the shares of common stock issued to you pursuant to this prospectus for resale in Australia within 12 months of those securities being issued unless any such resale offer is exempt from the requirement to issue a disclosure document under section 708 of the Corporations Act.

European Economic Area

In relation to each Member State of the European Economic Area, each, a Relevant State, no shares of common stock have been offered or will be offered pursuant to the offering to the public in that Relevant State prior to the publication of a prospectus in relation to the shares of common stock which have been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation, except that the shares of common stock may be offered to the public in that Relevant State at any time:

a) to any legal entity which is a "qualified investor" as defined under Article 2 of the Prospectus Regulation;
b) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the Prospectus Regulation), subject to obtaining the prior consent of representatives for any such offer; or
c) in any other circumstances falling within Article 1(4) of the Prospectus Regulation, provided that no such offer of the shares of common stock shall require us or any of the representatives to publish a prospectus pursuant

to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression "offer to the public" in relation to the shares of common stock in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of common stock to be offered so as to enable an investor to decide to purchase or subscribe for any shares of common stock, and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129.

Hong Kong

No shares of common stock have been offered or sold, and no shares of common stock may be offered or sold, in Hong Kong, by means of any document, other than to persons whose ordinary business is to buy or sell shares or debentures, whether as principal or agent; or to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong, or the SFO, and any rules made under that Ordinance; or in other circumstances which do not result in the document being a "prospectus" as defined in the Companies Ordinance (Cap. 32) of Hong Kong, or the CO, or which do not constitute an offer or invitation to the public for the purpose of the CO or the SFO. No document, invitation or advertisement relating to the shares of common stock has been issued or may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted under the securities laws of Hong Kong) other than with respect to shares of common stock which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the SFO and any rules made under that Ordinance.

This prospectus has not been registered with the Registrar of Companies in Hong Kong. Accordingly, this prospectus may not be issued, circulated or distributed in Hong Kong, and the shares of common stock may not be offered for subscription to members of the public in Hong Kong. Each person acquiring the shares of common stock will be required, and is deemed by the acquisition of the shares of common stock, to confirm that he is aware of the restriction on offers of the shares of common stock described in this prospectus and the relevant offering documents and that he is not acquiring, and has not been offered any shares of common stock in circumstances that contravene any such restrictions.

Israel

This document does not constitute a prospectus under the Israeli Securities Law, 5728-1968, or the Securities Law, and has not been filed with or approved by the Israel Securities Authority. In Israel, this prospectus is being distributed only to, and is directed only at, and any offer of the shares of common stock is directed only at, (i) a limited number of persons in accordance with the Israeli Securities Law and (ii) investors listed in the first addendum, or the Addendum, to the Israeli Securities Law, consisting primarily of joint investment in trust funds, provident funds, insurance companies, banks, portfolio managers, investment advisors, members of the Tel Aviv

Stock Exchange, underwriters, venture capital funds, entities with equity in excess of NIS 50 million and "qualified individuals," each as defined in the Addendum (as it may be amended from time to time), collectively referred to as qualified investors (in each case, purchasing for their own account or, where permitted under the Addendum, for the accounts of their clients who are investors listed in the Addendum). Qualified investors are required to submit written confirmation that they fall within the scope of the Addendum, are aware of the meaning of same and agree to it.

Japan

The offering has not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948 of Japan, as amended), or FIEL, and the underwriters will not offer or sell any shares of common stock, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the FIEL and any other applicable laws, regulations and ministerial guidelines of Japan.

Singapore

This prospectus has not been and will not be lodged or registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the common stock may not be circulated or distributed, nor may the common stock be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore, or the SFA, (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275, of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares of common stock are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

b) trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor, securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the shares of common stock pursuant to an offer made under Section 275 of the SFA except:

   i. to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
   ii. where no consideration is or will be given for the transfer;
   iii. where the transfer is by operation of law;
   iv. as specified in Section 276(7) of the SFA; or
   v. as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

Switzerland

The shares of common stock may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or the SIX, or on any other stock exchange or regulated trading facility in Switzerland. This prospectus has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this prospectus nor any other offering or marketing material relating to the securities or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this prospectus nor any other offering or marketing material relating to the offering, the company or the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this prospectus will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, and the offer of securities has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or the CISA. The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of securities.

United Kingdom

No shares of common stock have been offered or will be offered pursuant to the offering to the public in the United Kingdom prior to the publication of a prospectus in relation to the shares of common stock which has been approved by the Financial Conduct Authority, except that the shares of common stock may be offered to the public in the United Kingdom at any time:

a) to any legal entity which is a qualified investor as defined under Article 2 of the UK Prospectus Regulation;

b) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the UK Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or

c) in any other circumstances falling within Section 86 of the Financial Services and Markets Act 2000, or FSMA,

provided that no such offer of the shares of common stock shall require the Issuer or any Manager to publish a prospectus pursuant to Section 85 of the FSMA or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation. For the purposes of this provision, the expression an "offer to the public" in relation to the shares of common stock in the United Kingdom means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of common stock to be offered so as to enable an investor to decide to purchase or subscribe for any shares of common stock and the expression "UK Prospectus Regulation" means Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018.

LEGAL MATTERS

The validity of the shares of common stock being offered by this prospectus will be passed upon for us by DLA Piper LLP (US), Palo Alto, California. Cooley LLP, Palo Alto, California is representing the underwriters in this offering.

EXPERTS

The consolidated financial statements of Silvaco Group, Inc. as of December 31, 2022 and 2023, and for the years then ended, included in this prospectus have been audited by Moss Adams LLP, an independent registered public accounting firm, as stated in their report (which report expresses an unqualified opinion and includes an explanatory paragraph relating to a change in method for accounting for credit losses on financial instruments due to the adoption of ASC 326). Such consolidated financial statements are included in reliance upon the report of such firm given their authority as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1, including exhibits and schedules, under the Securities Act, with respect to the shares of common stock being offered by this prospectus. This prospectus, which constitutes part of the registration statement, does not contain all of the information in the registration statement and its exhibits. For further information with respect to us and the common stock offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

You can read our SEC filings, including the registration statement, over the Internet at the SEC's website at www.sec.gov. You may also request a copy of these filings, at no cost, by writing us at 4701 Patrick Henry Drive, Building #23, Santa Clara, CA 95054.

Upon completion of this offering, we will be subject to the information reporting requirements of the Exchange Act and we will file reports, proxy statements and other information with the SEC. These reports, proxy statements and other information will be available at the web site of the SEC referred to above. We also maintain a website at www.silvaco.com, at which, following the completion of this offering, you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Information contained on or accessible through our website is not a part of this prospectus, and the inclusion of our website address in this prospectus is an inactive textual reference only.

SILVACO GROUP, INC.

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Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of
Silvaco Group, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Silvaco Group, Inc. and subsidiaries (the "Company") as of December 31, 2022 and 2023, the related consolidated statements of loss, comprehensive loss, stockholders' equity and cash flows for the years then ended, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2022 and 2023, and the consolidated results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Change in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, the Company changed its method of accounting for allowances for credit losses in 2023 due to the adoption of Accounting Standards Codification Topic No. 326.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures to respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Moss Adams LLP

Campbell, California
March 15, 2024 (except for the effects of the stock split described in Note 2, as to which the date is April 30, 2024)
We have served as the Company's auditor since 2021.

SILVACO GROUP, INC.
CONSOLIDATED BALANCE SHEETS
(in thousands except share and par value amounts)

	As of December 31,	
	2022	2023
ASSETS		
Current assets:		
Cash	$ 5,478	$ 4,421
Accounts receivable, net	5,998	4,006
Contract assets	7,659	8,749
Prepaid expenses and other current assets	2,466	2,549
Deferred transaction costs	—	1,163
Total current assets	**21,601**	**20,888**
Long-term assets:		
Property and equipment, net	559	591
Operating lease right-of-use assets, net	2,393	1,963
Intangible assets, net	681	342
Goodwill	9,026	9,026
Long-term portion of contract assets	2,877	6,250
Other assets	1,581	1,825
Total assets	**$ 38,718**	**$ 40,885**
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 1,864	$ 2,495
Accrued expenses	9,017	10,180
Accrued income taxes	1,527	1,626
Operating lease liabilities, current	966	735
Deferred revenue	7,478	7,882
Related party line of credit	2,000	2,000
Other current liabilities	—	75
Total current liabilities	**22,852**	**24,993**
Long-term liabilities:		
Long-term portion of deferred revenue	4,075	5,071
Operating lease liabilities, non-current	1,427	1,198
Other long-term liabilities	341	221
Total liabilities	**28,695**	**31,483**
Commitments and contingencies (Note 14)		
Stockholders' equity:		
Common stock, $0.0001 par value; 25,000,000 shares authorized; 20,000,000 shares issued and outstanding	2	2
Retained earnings	11,928	11,392
Accumulated other comprehensive loss	(1,907)	(1,992)
Total stockholders' equity	**10,023**	**9,402**
Total liabilities and stockholders' equity	**$ 38,718**	**$ 40,885**

The accompanying notes are an integral part of these consolidated financial statements.

SILVACO GROUP, INC.
CONSOLIDATED STATEMENTS OF LOSS
(in thousands except share and per share amounts)

	Year Ended December 31,	
	2022	**2023**
Revenue:		
Software license revenue	$ 34,411	$ 39,331
Maintenance and service	12,063	14,915
Total revenue	**46,474**	**54,246**
Cost of revenue	8,887	9,354
Gross profit	**37,587**	**44,892**
Operating expenses:		
Research and development	12,447	13,170
Selling and marketing	10,222	12,707
General and administrative	16,231	17,881
Impairment charges	560	—
Total operating expenses	**39,460**	**43,758**
Operating income (loss)	**(1,873)**	**1,134**
Interest and other expense, net	(355)	(624)
Income (loss) before income tax provision	**(2,228)**	**510**
Income tax provision	1,700	826
Net loss	**$ (3,928)**	**$ (316)**
Net loss per share attributable to common stockholders:		
Basic and diluted	$ (0.20)	$ (0.02)
Weighted average shares used in computing per share amounts:		
Basic and diluted	20,000,000	20,000,000

The accompanying notes are an integral part of these consolidated financial statements.

SILVACO GROUP, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(in thousands)

	Year Ended December 31,	
	2022	2023
Net loss	**$ (3,928)**	**$ (316)**
Other comprehensive loss:		
Foreign currency translation adjustments	(419)	(85)
Comprehensive loss	**$ (4,347)**	**$ (401)**

The accompanying notes are an integral part of these consolidated financial statements.

SILVACO GROUP, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands except share amounts)

	Common Stock		Retained Earnings	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
	Shares	Amount			
Balance, January 1, 2022	**20,000,000**	**$ 2**	**$ 15,856**	**$ (1,488)**	**$ 14,370**
Other comprehensive loss	—	—	—	(419)	(419)
Net loss for the year	—	—	(3,928)	—	(3,928)
Balance, December 31, 2022	**20,000,000**	**$ 2**	**$ 11,928**	**$ (1,907)**	**$ 10,023**
ASC 326 Transition Adjustment	—	—	(220)	—	(220)
Balance, January 1, 2023	**20,000,000**	**$ 2**	**$ 11,708**	**$ (1,907)**	**$ 9,803**
Other comprehensive loss	—	—	—	(85)	(85)
Net loss for the year	—	—	(316)	—	(316)
Balance, December 31, 2023	**20,000,000**	**$ 2**	**$ 11,392**	**$ (1,992)**	**$ 9,402**

The accompanying notes are an integral part of these consolidated financial statements.

SILVACO GROUP, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Year Ended December 31,	
	2022	**2023**
Cash flows from operating activities:		
Net loss	**$ (3,928)**	**$ (316)**
Adjustments to reconcile net loss to net cash (used in) provided by operating activities:		
Depreciation and amortization	551	601
Impairment charges	560	—
Provision for credit losses	424	220
Loss on disposal of fixed assets	—	46
Change in fair value of contingent consideration	(211)	325
Changes in operating assets and liabilities:		
Accounts receivable	(2,201)	1,378
Contract assets	(1,589)	(5,208)
Prepaid expense and other current assets	(501)	133
Other assets	(480)	(267)
Accounts payable	(168)	156
Accrued expenses	1,612	1,875
Accrued income taxes	937	(23)
Deferred revenue	1,210	2,268
Other current liabilities	2,237	94
Other long-term liabilities	(550)	(102)
Net cash (used in) provided by operating activities	**(2,097)**	**1,180**
Cash flows from investing activities:		
Purchases of property and equipment	(89)	(339)
Net cash used in investing activities	**(89)**	**(339)**
Cash flows from financing activities:		
Contingent consideration	(876)	(1,002)
Deferred transaction costs	—	(650)
Proceeds from related party financing	2,500	1,000
Repayments of related party financing	(1,000)	(1,000)
Net cash provided by (used in) financing activities	**624**	**(1,652)**
Effect of exchange rate fluctuations on cash	**336**	**(246)**
Net decrease in cash	**(1,226)**	**(1,057)**
Cash, beginning of period	**6,704**	**5,478**
Cash, end of period	**$ 5,478**	**$ 4,421**
Supplemental disclosures of cash flow information:		
Income taxes paid	$ 655	$ 1,334
Interest paid	$ 71	$ 194
Noncash investing and financing activities:		
Deferred offering costs incurred, not yet paid	$ —	$ 513
Operating lease liability arising from the adoption of ASC 842	$ 2,600	$ —
Right of use assets obtained in exchange for lease obligations	$ —	$ 452

The accompanying notes are an integral part of these consolidated financial statements.

SILVACO GROUP, INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
For the Years Ended December 31, 2022 and 2023

1. Description of Business

Silvaco Group, Inc. (“Silvaco,” and together with its subsidiaries, the “Company”) was incorporated as a Delaware corporation on November 18, 2009. The Company is a provider of technology computer aided design (“TCAD”) software, electronic data automation (“EDA”) software and semiconductor intellectual property (“SIP”). TCAD, EDA and SIP solutions enable semiconductor and photonics companies to increase productivity, accelerate their products’ time-to-market and reduce their development and manufacturing costs. The Company has decades of expertise developing the “technology behind the chip” and providing solutions that span from atoms to systems, starting with providing software for the atomic level simulation of semiconductor and photonics material for devices, to providing software and SIP for the design and analysis of circuits and system level solutions. The Company provides SIP for system-on-a-chip (“SoC”), integrated circuits (“ICs”) and SIP management tools to enable team collaborations on complex SoC designs. The Company’s customers include semiconductor manufacturers, original equipment manufacturers (“OEMs”) and design teams who deploy the Company's solutions in production flows across the Company's target markets, including display, power devices, automotive, memory, high performance computing (“HPC”), internet of things (“IoT”) and 5G/6G mobile markets.

Given the multi-discipline problem-solving needs of the Company's customers, a single license of software may require components from multiple product lines and include combined technologies. The Company also has a multi-year product and integration strategy that often results in new, combined products or changes to historical product offerings.

2. Summary of Significant Accounting and Reporting Policies

Basis of presentation and consolidation

The accompanying consolidated financial statements have been prepared in accordance with U.S. Generally Accepted Accounting Principles ("GAAP") and include the accounts of Silvaco and all of the Company's wholly owned subsidiaries with operations in North America, Europe, Asia and South America. All intercompany transactions and balances have been eliminated upon consolidation.

Stock Split

On April 29, 2024, the Company effected a 1-for-2 reverse split of its common stock. Upon the effectiveness of the reverse stock split, (i) every two shares of outstanding common stock was combined into a single share of common stock, (ii) the number of shares of common stock for which each outstanding RSU was proportionally decreased on a 2-for-1 basis, and (iii) the fair value of each outstanding RSU was proportionately increased on a 1-for-2 basis. All of the outstanding common stock share numbers, RSUs, RSU fair values and per share amounts have been adjusted, on a retroactive basis, to reflect this 1-for-2 reverse stock split for all periods presented. The par value per share and authorized number of shares of common stock were not adjusted as a result of the reverse stock split.

Reclassifications

The Company reclassified its presentation of cash flows from operating activities and financing activities in the Consolidated Statements of Cash Flows for the year ending December 31, 2022 to conform to the current year’s presentation. Such reclassifications had no effect on the previously reported consolidated financial position, consolidated results of operations or consolidated operating or financing cash flows of the Company.

War in Ukraine

On February 24, 2022, Russia launched a full scale invasion of Ukraine. As a result of local economic uncertainties and disruption created by the initiation of war in 2022, the Company recorded an impairment charge of $560,000 associated with goodwill and intangible assets held by Silvaco's Ukrainian subsidiary which management determined would not be recoverable. See also Note 6, Goodwill and Intangible Assets.

Use of estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements. Estimates also affect the amounts of revenue and expenses during the reported periods. The Company’s most significant estimates relates to revenue recognition. Other use of estimates include, but are not limited to, accounts receivable allowances, share-based payment compensation, valuation of goodwill and other intangible assets, contingent consideration, uncertain tax positions and income taxes. Actual results could differ from those estimates.

Revenue recognition

The Company's revenue is derived principally from software licensing and related maintenance and service. Silvaco enters into agreements that include combinations of software solutions and maintenance and services which are accounted for as separate performance obligations with differing revenue recognition patterns. The Company recognizes revenue pursuant to ASC Topic 606, *Revenue from Contracts with Customers*. The core principle of this guidance is that an entity should recognize revenue to depict the delivery of software to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for such software or services. To achieve this objective the Company applies a five-step approach: (1) identify the contract(s) with a customer, (2) identify the performance obligations within the contract, (3) determine the transaction price, (4) allocate the transaction price to the separate performance obligations and (5) recognize revenue when, or as, each performance obligation is satisfied.

Revenue from software licenses is classified as software license revenue. Software license revenue is recognized upfront upon delivery of the licensed software. Typically, the Company's software solutions are licensed with post-contract support ("PCS"), which includes unspecified technical enhancements and customer support. The PCS is classified as maintenance and service revenue and is recognized ratably over the term of the contract, as the Company satisfies the PCS performance obligation over time.

The Company also offers standard SIP licenses, developed both in house and in partnership with industry-recognized companies. The Company's SIP licenses provide customers with access to SoC design intellectual property ("IP") which meet established industry standards, thus saving customers the time and resources required to re-invent similar design methodology. SIP licenses offered by the Company are generally ready to use upon delivery. No modification is required in order for the customer to obtain value for use in their integrated circuit designs. Silvaco does not license SIP without support.

Revenue associated with the license of the Company's SIP is classified as software license revenue and recognized as revenue upon delivery of the licensed SIP. Under certain SIP license agreements, the Company also derives revenue through royalties from customers who agree to pay usage-based fees to embed the Company's licensed software into their own software offerings. Royalties are generally recognized as revenue during the period in which the customer sells its solutions which incorporate the Company's SIP. The PCS is classified as maintenance and service revenue and is recognized ratably over the term of the contract, as the Company satisfies the PCS performance obligation over time.

In connection with the Company's SIP, which was developed in partnership with a third party vendor, Silvaco has entered into various renewable license agreements under which the Company has the right to sell the technology it licenses from the third party vendor. When the Company licenses these particular SIP to a customer, Silvaco generally acts as a principal to the transaction because the Company controls the promised SIP that it delivers to the customer. Consistent with its role as principal, the Company recognizes SIP revenue on a gross basis. Royalty costs are reported in cost of revenue upon delivery pursuant to the terms and conditions of the Company's contractual obligations with the licensors. The Company's licensing arrangement with this third party vendor terminated on October 30, 2023.

The Company recognized an immaterial portion of its revenue from device characterization and modeling services for the years ended December 31, 2022 and 2023. Revenue is recognized upon the completion of the requested services and, as applicable, satisfaction of customer acceptance terms. Revenue from these services is classified as maintenance and service revenue.

Payment terms and conditions vary by contract type, although terms generally include a requirement of payment within 30 days. Invoicing may vary from timing of revenue recognition. When the timing of invoicing or collections precedes revenue recognition, the Company records deferred revenue. When timing of revenue recognition precedes invoicing or collections, the Company records a contract asset. In instances where the timing of revenue recognition differs from the timing of invoicing, the Company has determined its contracts generally do not include a significant financing component.

Non-income related taxes collected from customers and remitted to governmental authorities are recorded on the consolidated balance sheets as accounts receivable and accrued expenses. The collection and payment of these amounts are reported on a net basis in the consolidated statements of income (loss).

Silvaco does not offer a right of return. The Company warrants to its customers that its software will perform substantially as specified in its current user manuals. Silvaco has not experienced significant claims related to software warranties beyond the scope of maintenance support, which the Company is already obligated to provide.

The warranty is not sold, and cannot be purchased, separately. The warranty does not provide any type of additional service to the customer or performance obligation for Silvaco.

The Company's agreements with customers generally require Silvaco to indemnify the customer against claims that the Company's software infringes third-party patent, copyright, trademark or other proprietary rights. Such indemnification obligations are generally limited in a variety of industry-standard respects, including by affirming Silvaco's right to replace an infringing product.

Significant Judgments

Silvaco's contracts typically include promises to transfer licenses, which enables customers to use the Company's software, and services. Judgment is required to determine if the promises are separate performance obligations, and if so, to allocate the transaction price to each performance obligation. The Company uses the estimated standalone selling price method to allocate the transaction price for each performance obligation. The estimated standalone selling price is determined using all information reasonably available to the Company, including market conditions and other observable inputs, historical pricing and the value relationship between Silvaco's various product and service offerings. The corresponding revenues are recognized as the related performance obligations are satisfied.

Contract Assets and Liabilities

The timing of revenue recognition may differ from the timing of invoicing to customers, and these timing differences result in receivables (billed), contract assets (unbilled), or contract liabilities (deferred revenue) on the Company’s consolidated balance sheets. The Company records a contract asset when revenue is recognized prior to the right to invoice, or deferred revenue when revenue is recognized subsequent to invoicing. For time-based software agreements, customers are generally invoiced in equal, quarterly amounts, although some customers are invoiced in single or annual amounts. The Company records an unbilled receivable when revenue is recognized and it has an unconditional right to invoice and receive payment.

Financing

Silvaco is required to adjust promised amounts of consideration for the effects of the time value of money if the timing of the payments provides the customer or the Company with a significant financing benefit. Silvaco considers various factors in assessing whether a financing component exists, including the duration of the contract, market interest rates and the timing of payments. The Company's contracts do not include a significant financing component requiring adjustment to the transaction price.

Sales Commissions

Sales commissions associated with multi-year contracts for new term-based licenses are deferred, capitalized, and amortized over an estimated customer life of five years. Capitalized sales commissions are included in prepaid and other current assets and other assets on the Company's consolidated balance sheets. Amortization of sales commissions is included in selling and marketing expenses on the Company's consolidated statements of income (loss). The Company applies a practical expedient to expense sales commissions as incurred when the amortization period would have been one year or less. During the years ended December 31, 2022 and 2023, the Company capitalized sales commissions of $829,000 and $1.4 million, respectively. Amortization of sales commissions during the years ended December 31, 2022 and 2023 was $719,000 and $848,000, respectively.

Cash

Cash consists of cash held in checking and savings accounts.

Property and equipment

Property and equipment are stated at cost, net of accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful lives of the various classes of assets, as follows:

Leasehold improvements	Shorter of remaining life of lease, including option to renew that is expected to be exercised, or useful life of improvement.
Computers and software	5 years
Servers and networking equipment	4 years
Vehicles	5 years

Repairs and maintenance are charged to expense as incurred. Gains or losses from the sale or retirement of property and equipment are included within general and administrative expenses in consolidated statements of loss.

Research and development

Research and development costs consist primarily of personnel costs for product development, engineering, quality assessment and other related costs associated with the development of new products, enhancements to existing products, quality assurance and testing. Research and development costs are expensed as incurred. Internally developed software costs required to be capitalized as defined by ASC 350-40, *Internal-Use Software* are not material to the Company's consolidated financial statements.

Goodwill and other intangible assets

Goodwill represents the excess of the fair value of consideration transferred over the fair value of net identifiable assets acquired. Other intangible assets consist of customer relationships, developed technology and noncompete agreements which are amortized over their useful lives of five years. Intangible assets are reviewed for impairment whenever events or changes in circumstances indicate an asset's carrying value may not be recoverable.

Goodwill is not amortized but is tested annually for impairment and more often if there is an indicator of impairment.

The Company performs testing for impairment of goodwill on an annual basis, or as events occur or circumstances change that would more likely than not reduce the fair value of the Company's single reporting unit below its carrying amount. Goodwill is considered impaired if the carrying value of the reporting unit exceeds its fair value.

Intangible assets are reviewed for impairment whenever events or changes in circumstances indicate an asset's carrying value may not be recoverable.

During the year ended December 31, 2022, the Company recorded an impairment charge of $560,000 to reduce the carrying value of intangible assets associated with Silvaco's Ukrainian subsidiary which management determined would not be recoverable. No impairments charges were recorded to goodwill.

No indicators of impairment or impairments charges were identified or recorded to goodwill or intangible assets during the year ended December 31, 2023.

Impairment of long-lived assets

The Company continually monitors events and changes in circumstances that could indicate the carrying amounts of long-lived assets, including property and equipment, may not be recoverable. Accordingly, when indicators of impairment are present, the Company evaluates the carrying value of such assets in relation to the future undiscounted cash flows of the underlying assets. The Company's policy is to record an impairment loss when it is determined that the carrying amount of the asset may not be recoverable. As a result of local economic uncertainties and disruption created by Russia's invasion of Ukraine in February of 2022, the Company recorded an impairment charge of $560,000 during the year ended December 31, 2022 associated with intangible assets held by Silvaco's Ukrainian subsidiary which management determined would not be recoverable. No impairment charge was recorded for the year ended December 31, 2023

Deferred transaction costs

Deferred offering costs are capitalized and consist of fees and expenses incurred in connection with the Company's anticipated initial public offering ("IPO"), including the legal, accounting, printing, and other IPO-related costs. Upon completion of the IPO, these deferred transaction costs will be reclassified to stockholders' equity and recorded against the proceeds from the offering. If the Company terminates its planned IPO or if there is a significant delay, all of the deferred offering costs will be immediately written off to operating expenses in the consolidated statements of operations. The balance of deferred offering costs as of December 31, 2023 was $1,163,000 which is included in total current assets on the consolidated balance sheets. No balance was outstanding as of December 31, 2022.

Concentrations of credit risk

As of December 31, 2022, customer A represented 28% of the Company's accounts receivable. As of December 31, 2023, customer A represented 20% and customer B represented 15% of the Company's accounts receivable.

In addition to the concentration of credit risk with respect to trade receivables, the Company's cash on deposit with financial institutions is also exposed to concentration risk. The Company's cash on deposit with financial institutions are insured through various public and private bank deposit insurance programs, foreign and domestic; however, a significant portion of cash balances held as of December 31, 2022 and December 31, 2023 exceeded insured limits.

As of December 31, 2023, $1.0 million, or 23%, of the Company's cash was maintained with one financial institution in the United States, where the Company's current deposits are in excess of federally insured limits. On March 10, 2023, Silicon Valley Bank ("SVB") was closed by the California Department of Financial Protection and Innovation, which

appointed the Federal Deposit Insurance Corporation ("FDIC") as receiver. If the financial institutions with whom the Company does business were to become distressed or to be placed into receivership, the Company may be unable to access the cash it has on deposit with such institutions. If the Company is unable to access its cash as needed, the Company's financial position and ability to operate its business could be adversely affected.

Since 2016, Silvaco has generated revenues from licensing to the Company's customers, a certain SIP which the Company has licensed from a third party vendor. The license agreement with the third party vendor relating to this SIP expired on October 30, 2023. During the years ended December 31, 2022 and 2023, the Company generated $4.2 million and $4.5 million in software license revenue, respectively, from licensing this SIP to its customers. In connection with this license agreement with the vendor, the Company recognized $2.1 million and $2.0 million in royalty expense during years ended December 31, 2022 and 2023, respectively.

Allowance for credit losses

Effective January 1, 2023, the Company adopted ASU 2016-13, *Financial Instruments - Credit Losses (Topic 326)*: *Measurement of Credit Losses on Financial Instruments* ("CECL"), which replaces the legacy incurred loss impairment methodology with an expected credit loss model that requires consideration of a broader range of reasonable and supportable information to estimate expected credit losses over the lifetime of a financial asset. The Company adopted CECL using the modified retrospective approach which required the Company to recognize the cumulative effect of adoption as an adjustment to retained earnings. Accordingly, the Company's comparative financial statements of December 31, 2022, have not been adjusted. As of January 1, 2023, the Company recorded cumulative-effect opening balance sheet adjustment to an allowance for estimated credit losses on the Company's contract asset portfolio and accounts receivable of $220,000, with an offsetting entry to decrease the opening balance of retained earnings.

The Company assesses its ability to collect outstanding receivables and contract assets and provides customer-specific allowances for credit losses and general allowances for the portion of receivables and contract assets that are estimated to be uncollectible. Allowances for credit losses are based on historical collection experience and expected credit losses, customer specific financial condition, current economic trends in the customer's industry and geographic region, changes in customer demand and the overall economic climate in the market the Company serves. Provisions for the allowance for expected credit losses attributable to bad debt are recorded as general and administrative expenses. Account balances deemed uncollectible are written off, net of actual recoveries. If circumstances related to specific customers or the market the Company serves change, the Company's estimate of the recoverability of its accounts receivable and contract assets could be further adjusted. The Company does not have any material account receivable or contract asset balances that are past due and has not written off any significant balances in its portfolio against the allowance for credit losses for the periods presented. The following table presents the Company's allowance for credit losses during the years ended December 31, 2022 and 2023:

	Year Ended December 31,	
	2022	**2023***
	(in thousands)	
Beginning balance – January 1*	**$ 252**	**$ 762**
Provision for credit losses	424	220
Accounts written off	(134)	(442)
Ending balance – December 31	**$ 542**	**$ 540**

* Opening balance as of January 1, 2023 includes a cumulative-effect adjustment of $220,000 for expected credit losses on financial assets in connection with the Company's adoption of CECL.

Income taxes

The Company accounts for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, deferred tax assets and liabilities are determined based on the differences between the financial statements and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period of the enactment date.

The Company records net deferred tax assets to the extent it believes these assets will more likely than not be realized. In making such determinations, the Company considers all available positive and negative evidence, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax planning strategies and recent financial operations. In the event the Company determines that Silvaco will be able to realize deferred tax

assets for which a valuation allowance was used to reduce their carrying value, the adjustment to the valuation allowance will be recorded as a reduction to the provision for income taxes.

Tax benefits related to uncertain tax positions taken or expected to be taken on a tax return are recorded when such benefits meet a more-likely-than-not threshold. Otherwise, these tax benefits are recorded when a tax position has been effectively settled, which means that the statute of limitations has expired, or the appropriate taxing authority has completed its examination even though the statute of limitations remains open.

The Company recognizes interest and penalties related to income taxes within the income tax provision line in the consolidated statements of income (loss). Accrued interest and penalties are included within accrued income taxes in the consolidated balance sheets.

Foreign currencies

The financial statements of Silvaco's international subsidiaries with local functional currencies are translated to U.S. dollars upon consolidation. Assets and liabilities are translated at the effective exchange rate on the balance sheet date. Results of operations are translated at average exchange rates, which approximate rates in effect when the underlying transactions occurred. For the years ended December 31, 2022 and 2023, the Company recorded foreign currency translation adjustments of $(419,000) and $(85,000), respectively, within accumulated other comprehensive loss.

Certain sales and intercompany transactions are denominated in foreign currencies. These transactions are recorded in functional currency at the appropriate exchange rate on the transaction date. Monetary assets and liabilities denominated in a currency other than the Company's functional currency or its subsidiaries' functional currencies are remeasured at the effective exchange rate on the balance sheet date. Gains and losses resulting from foreign exchange transactions are included in interest and other expense, net. The Company recorded net foreign exchange losses of $525,000 and $335,000 for the years ended December 31, 2022 and 2023, respectively, which is included in interest and other expense, net, in the consolidated statements of loss.

Accumulated other comprehensive loss

Accumulated other comprehensive loss is composed entirely of foreign currency translation adjustments.

Stock-based compensation

The Company accounts for stock-based payments in accordance with the authoritative guidance issued by the FASB on stock-based compensation, which establishes the accounting for transactions in which an entity exchanges its equity instruments for goods or services. Under the provisions of the authoritative guidance, stock-based compensation expense is measured at the grant date, based on the fair value of the award, and is recognized as an expense over the requisite employee service period (generally the vesting period), net of actual forfeitures. For stock-based payment awards that contain performance criteria, stock-based compensation expense is recorded when the achievement of the performance condition is considered probable of achievement and is recorded on a straight-line basis over the requisite service period. If such performance criteria are not met, no compensation expense is recognized and any recognized compensation expense is reversed. For awards with market and service conditions, the Company recognizes stock-based compensation on a straight-line basis for all awards for which the service conditions are met, regardless of whether the market condition is achieved.

Fair value of financial instruments

The Company defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Company uses valuation approaches that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible. The Company determines fair value based on assumptions that market participants would use in pricing an asset or liability in the principal or most advantageous market. When considering market participant assumptions in fair value measurements, the following fair value hierarchy distinguishes between observable and unobservable inputs, which are categorized in one of the following levels:

- Level 1 Inputs: Unadjusted quoted prices in active markets for identical assets or liabilities accessible to the reporting entity at the measurement date.
- Level 2 Inputs: Other than quoted prices included in Level 1 inputs that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices), for substantially the full term of the asset or liability.
- Level 3 Inputs: Unobservable inputs for the asset or liability used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at measurement date.

As of December 31, 2022 and 2023, the carrying amount of the Company's cash, accounts receivable, accounts payable and accrued expenses approximated their fair values due to their short maturities. See Note 16, Fair Value of Financial Instruments for additional information. The Company's related party line of credit is carried at net carrying value.

Research and development tax credits

Silvaco is a recipient of research and development ("R&D") tax credits associated with the Company's French subsidiary. Pursuant to French law, the tax credit is determined on the basis of the eligible R&D expenses incurred during the calendar year. Eligible expenditures include tax deductible depreciation expenses relating to fixed assets, created or acquired newly, assigned to eligible R&D projects, including patents acquired; costs relating to staff qualifying as scientists or engineers; expenses resulting from outsourced R&D projects; expenses incurred for patent registration or in connection with the defense of patents; and expenses relating to the monitoring of technical developments. The tax credits, which are recorded as a reduction of R&D expense, can be offset against corporate income tax liabilities payable with respect to the calendar year during which the eligible R&D expenditures were incurred. Any excess credit can be carried forward and offset against the tax liability of the taxpayer during the next three years. Credits unused after three years will be refunded to the taxpayer. Research and development tax credits are included in prepaid expenses and other current assets in the Company's consolidated balance sheets.

Leases

The Company determines if an arrangement is a lease at inception of the contract, which is the date on which the terms of the contract are agreed to, and the agreement creates enforceable rights and obligations. A contract is or contains a lease when the Company has the right to control the use of an identified asset for a period of time. The commencement date of the lease is the date that the lessor makes an underlying asset available for use by the lessee. On the commencement date, leases are evaluated for classification and assets and liabilities are recognized based on the present value of lease payments over the lease term. Leases are classified as either operating or finance leases based on certain criteria. This classification determines the timing and presentation of expenses on the income statement, as well as the presentation of the related cash flows and balance sheet. Operating leases with terms greater than 12 months are recorded on the balance sheet as operating lease right-of use assets, other accrued expenses and liabilities, and long-term operating lease liabilities. The Company has elected the practical expedient to account for the lease and non-lease components as a single lease component for all asset classes.

The lease term used to calculate the lease liability includes options to extend or terminate the lease when it is reasonably certain that the option will be exercised. The right of use (ROU) asset is initially measured as the amount of lease liability, adjusted for any initial lease costs, prepaid lease payments and any lease incentives. Variable lease payments, consisting primarily of reimbursement of costs incurred by lessors for common area maintenance, real estate taxes and insurance, are not included in the lease liability and are recognized as they are incurred.

As most of the Company's leases do not provide an implicit rate, the Company uses the incremental secured borrowing rate at lease commencement to measure ROU assets and lease liabilities. The discount rate used for operating leases is primarily determined based on an analysis of the Company's incremental secured borrowing rate. The related lease payments are expensed on a straight-line basis over the lease term, including, as applicable, any free-rent period during which the Company has the right to use the asset.

The Company has no finance leases. See Note 4 for further information.

Advertising

Advertising costs are expensed as incurred and were $19,000 and $28,000 for the years ended December 31, 2022 and 2023, respectively.

Net Loss per Share

Basic net loss per share is computed based on the weighted average number of shares of common stock outstanding. Diluted net loss per share is computed based on the weighted average number of common shares outstanding increased by dilutive common stock equivalents, attributable to RSU grants.

The following potentially dilutive outstanding securities for the years ended December 31, 2022 and 2023 were excluded from the computation of diluted net loss per share because the issuance of such shares is contingent upon

the satisfaction of certain conditions which were not satisfied. See Note 11, Restricted Stock Units for additional information.

	December 31,	
	2022	2023
RSU Grants	2,643,248	3,398,276

Subsequent Events

Subsequent events are events or transactions that occur after the balance sheet date but before consolidated financial statements are issued or are available to be issued. The Company recognizes in the consolidated financial statements the effects of all subsequent events that provide additional evidence about conditions that existed at the date of the balance sheet, including the estimates inherent in the process of preparing the consolidated financial statements. The Company's consolidated financial statements do not recognize subsequent events that provide evidence about conditions that did not exist at the date of the balance sheet but arose after the balance sheet date and before consolidated financial statements are available to be issued.

Recently Adopted Accounting Pronouncements

Financial Instruments - credit losses: In June 2016, the FASB issued ASU 2016-13, *Financial* Instruments - *Credit Losses (Topic 326)*: *Measurement of Credit Losses on Financial Instruments* ("CECL"), which required the establishment of an allowance for estimated credit losses on financial assets, including trade and other receivables, including contract assets, at each reporting date. Silvaco adopted the new standard on January 1, 2023, the first day of fiscal 2023, and recorded a cumulative-effect adjustment to decrease retained earnings in the amount of $220,000 for expected credit losses on financial assets at the adoption date. See the Company's accounting policy note above regarding allowance for credit losses for further discussion.

Accounting Guidance Issued and Not Yet Adopted

In November 2023, the FASB issued Accounting Standards Update ASU 2023-07, *Segment Reporting (Topic 280)*: Improvements to Reportable Segment Disclosures, which requires disclosure of incremental segment information on an interim and annual basis. This ASU is effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal periods beginning after December 15, 2024, and requires retrospective application to all prior periods presented in the financial statements. The Company is currently evaluating the impact of the guidance on the consolidated financial statements and disclosures.

In December 2023, the FASB issued ASU No. 2023-09 ("ASU 2023-09"), *Income Taxes (Topic 740)*: Improvement to Income Tax Disclosures to enhance the transparency and decision usefulness of income tax disclosures. ASU 2023-09 is effective for annual periods beginning after December 15, 2024 on a prospective basis. Early adoption is permitted. The Company is currently evaluating the impact of this accounting standard update on its consolidated financial statements and related disclosures.

3. Revenue

The Company's revenue is derived principally from contracts which promise to deliver combinations of software licensing and related maintenance and services, which are accounted for as separate performance obligations with differing revenue recognition patterns. The transaction price is allocated to each distinct performance obligation based on the relative standalone selling price. Software license revenue consists of the Company's software sold under a software license. Revenue related to stand-alone software applications are generally recognized upon shipment and delivery of license keys. For certain arrangements revenue is recognized based on usage or ratably over the term of the arrangement. Maintenance and service revenue consists of both maintenance revenues and professional services revenues which is recognized based on usage or ratably over the term of the arrangement. Timing of revenue recognition may differ from the timing of invoicing to customers. The Company records a contract asset when revenue is recognized prior to invoicing. An accounts receivable is recorded upon invoicing. Deferred revenue is recorded when invoicing precedes revenue recognition.

The Company accounts for a contract with a customer when both parties have approved the contract and are committed to perform their respective obligations, each party's rights and payment terms can be identified, the contract has commercial substance, and it is probable the Company will collect substantially all of the consideration it is entitled to. Revenue is recognized when, or as, performance obligations are satisfied by transferring control of a promised software or providing service to a customer.

For multi-year software licenses, the Company generally invoices customers annually at the beginning of each annual coverage period.

The contract balances of the Company's accounts receivable and contract assets, net of allowance for expected credit losses, and deferred revenue as of January 1, 2022, December 31, 2022 and December 31, 2023 were as follows:

	Contract Balances		
	January 1, 2022	December 31, 2022	December 31, 2023
		(in thousands)	
Accounts receivable, net	$ 4,466	$ 5,998	$ 4,006
Contract Assets, net	$ 9,442	$ 10,536	$ 14,999
Deferred revenue	$ 8,956	$ 11,553	$ 12,953

The short-term and long-term components of the Company's contract assets, net of allowance for expected credit losses, was as follows as of December 31, 2022 and 2023.

	December 31,	
	2022	2023
	(in thousands)	
Short-term portion of contract assets, net	$ 7,659	$ 8,749
Long-term portion of contract assets, net	2,877	6,250
Total contract assets, net	**$ 10,536**	**$ 14,999**

Transaction Price Allocated to the Remaining Performance Obligations

As of December 31, 2023, approximately $29.8 million of revenue is expected to be recognized from remaining performance obligations. This figure represents contracted revenue that has not yet been recognized, which includes both deferred revenue and backlog, net of cancellations and adjustments. The Company's backlog represents installment billings for periods beyond the current billing cycle. The Company expects to recognize revenue on approximately 55% of these remaining performance obligations over the next 12 months, with the balance recognized thereafter.

Deferred Revenue

Deferred revenue is comprised mainly of unearned revenue related to maintenance and service on software licenses and pending software license deliveries. Maintenance and technical support revenue is recognized ratably over the coverage period. Software license revenue is recognized upfront upon delivery of the licensed software. Deferred revenue also includes contracts for professional services to be performed in the future which are recognized as revenue when the company delivers the related service pursuant to the terms of the customer arrangement.

The Company's deferred revenue as of December 31, 2022 and 2023 was as follows:

	December 31,	
	2022	2023
	(in thousands)	
Short-term portion of deferred revenue	$ 7,478	$ 7,882
Long-term portion of deferred revenue	4,075	5,071
Total deferred revenue	**$ 11,553**	**$ 12,953**

During fiscal year 2022 and 2023, the Company recognized revenue of $5.8 million and $7.2 million, respectively, that was included in the deferred revenue balance at the beginning of fiscal year 2022 and 2023, respectively. All other activity in deferred revenue is due to the timing of invoices in relation to the timing of revenue during fiscal years 2022 and 2023 as described above. Approximately 61% of the Company's deferred revenue as of December 31, 2023 is expected to be recognized over the next 12 months with the remainder recognized thereafter.

4. Leases

The Company's headquarters are located in Santa Clara, California, where the Company has an operating lease covering its corporate office expiring in March of 2025. The Company also has operating leases in Duluth, Georgia, and abroad, in Japan, France, China, the United Kingdom, Taiwan, Singapore, and Korea, among other countries. The expiration dates for these operating leases range from 2024 through 2029. As of December 31, 2022 and 2023, the Company's operating lease right-of-use assets and operating lease liabilities were as follows:

	December 31,	
	2022	2023
	(in thousands)	
Operating lease right-of-use assets, net	$ 2,393	$ 1,963
Operating lease liabilities, current	966	735
Operating lease liabilities, non-current	$ 1,427	$ 1,198

The components of operating lease cost were as follows:

	Year Ended December 31,	
	2022	2023
	(in thousands)	
Operating lease cost	$ 1,065	$ 1,003
Variable lease cost[(1)]	330	223
Total operating lease cost	**$ 1,395**	**$ 1,226**

(1) Variable lease cost includes common area maintenance, utilities, security, insurance and property taxes.

Additional information related to the Company's operating leases for the years ended December 31, 2022 and 2023 was as follows:

	Year Ended December 31,	
	2022	2023
	(in thousands)	
Cash paid for operating lease liabilities	$ 1,081	$ 1,028
Right-of use assets obtained in exchange for operating lease liabilities	$ —	$ 452
Operating lease liability arising from the adoption of ASC 842	$ 2,600	$ —

	December 31,	
	2022	2023
Weighted average remaining lease term (in years)	4.45	4.09
Weighted average discount rate	4.13 %	3.84 %

As of December 31, 2023 maturities of operating lease liabilities were as follows:

Year Ending December 31,	Amount
	(in thousands)
2024	749
2025	510
2026	235
2027	196
2028	196
Thereafter	196
Total lease payments	**2,082**
Less: imputed interest	(149)
Total operating lease liabilities	**$ 1,933**
Current portion of lease liability	**$ 735**
Non-current portion of lease liability	**$ 1,198**

Rent expense for the years ended December 31, 2022 and 2023 was $1.4 million and $1.2 million, respectively.

5. Property and Equipment, Net

The Company's property and equipment at December 31, 2022 and 2023 consisted of the following:

	December 31,	
	2022	2023
	(in thousands)	
Computer software	$ 5,596	$ 5,547
Equipment	707	545
Buildings and improvements	172	167
Leasehold improvements	145	186
Furniture and fixtures	196	156
Total property and equipment	**6,816**	**6,601**
Less accumulated depreciation	(6,257)	(6,010)
Total property and equipment, net	**$ 559**	**$ 591**

During the year ended December 31, 2023, the Company recorded a $46,000 noncash loss on the disposal of fixed assets. No fixed asset disposals were recorded during the year ended December 31, 2022. Depreciation expense was $235,000 and $262,000 for the years ended December 31, 2022 and 2023, respectively.

6. Goodwill and Intangible Assets

Goodwill represents the excess of the fair value of consideration transferred over the fair value of net identifiable assets acquired. Identifiable intangible assets acquired in business combinations and asset acquisitions are recorded based on their fair values on the date of acquisition.

Goodwill and intangible assets are reviewed for impairment whenever events or changes in circumstances indicate an asset's carrying value may not be recoverable. In connection with Russia's invasion of Ukraine in February 2022, the Company recorded an impairment charge of $560,000 to reduce the carrying value of $284,000 of developed technology and $276,000 of customer relationships associated with the Company's Ukrainian subsidiary which management determined would not be recoverable.

There were no changes to goodwill during the years ended December 31, 2022 and 2023.

For the years ended December 31, 2022 and 2023, intangible assets were classified as follows:

	Weighted Average Amortization Period	December 31, 2022 Gross Carrying Value	Accumulated Amortization	Net Carrying Value
Intangible assets:			*(in thousands)*	
Developed technology	5	$ 2,660	$ (2,193)	$ 467
Customer relationships	5	2,416	(2,213)	203
Non-compete agreements	5	179	(168)	11
Total intangible assets		**$ 5,255**	**$ (4,574)**	**$ 681**

	Weighted Average Amortization Period	December 31, 2023 Gross Carrying Value	Accumulated Amortization	Net Carrying Value
Intangible assets:			*(in thousands)*	
Developed technology	5	$ 2,660	$ (2,367)	$ 293
Customer relationships	5	2,416	(2,374)	42
Non-compete agreements	5	179	(172)	7
Total intangible assets		**$ 5,255**	**$ (4,913)**	**$ 342**

Amortization expense for the intangible assets reflected above was $316,000 and $339,000 for the years ended December 31, 2022 and 2023, respectively.

As of December 31, 2023, estimated future amortization expense for the intangible assets reflected above was as follows:

For Years Ending December 31,	*(in thousands)*
2024	$ 205
2025	137
Total net carrying value of intangible assets	**$ 342**

7. Significant Balance Sheet Components

Prepaid expenses and other current assets consisted of the following:

	December 31, 2022	2023
	(in thousands)	
Research and development tax credits	$ 940	$ 896
Deferred sales commissions[(a)]	669	808
Short-term lease deposits	16	104
Prepaid expenses	841	741
Total prepaid expenses and other current assets	**$ 2,466**	**$ 2,549**

Other assets consisted of the following:

	December 31,	
	2022	2023
	(in thousands)	
Deferred sales commissions[(a)]	$ 1,135	$ 1,501
Prepaid expenses	99	86
Long-term lease deposits	347	238
Total other assets	**$ 1,581**	**$ 1,825**

(a) Balance reflects commissions paid for new contracts, primarily new multi-year term license arrangements to be amortized over the anticipated customer life of five years.

8. Related Parties

On December 8, 2021, Silvaco entered a promissory note with the Company's founding principal stockholder for $500,000 ("Promissory Note") which was repaid in full in July 2022.

On March 30, 2022, Silvaco entered a second related party note payable with the Company's founding principal stockholder for $500,000 (“March 2022 Note”) bearing interest at 3.25% payable and due on March 30, 2023. The March 2022 Note was repaid in full in December 2022.

On May 1, 2022, the Company entered into a commercial lease agreement with Kipee, a related party controlled by the Company's founding principal stockholder, for Silvaco's corporate office in Santa Clara, California. In connection with this lease arrangement, the Company recorded rent expense of $144,000 and $216,000 of rent expense during the year ended December 31, 2022 and 2023, respectively. The Company's right-of-use asset and operating lease liability under this three year arrangement, which commenced on May 1, 2022 and expires on March 31, 2025, is $259,000 as of December 31, 2023. The short term and long term components of the Company’s operating lease liability for this commercial office lease are $209,000 and $50,000 as of December 31, 2023, respectively.

The Company has two international office leases with New Horizons (Cambridge) LTD (“NHC”) and New Horizons France (“NHF”) in Cambridgeshire, England and Grenoble, France, respectively. NHC and NHF are real estate entities owned and controlled by the Company's founding principal stockholder. In connection with these lease arrangements, the Company recorded rent expense of $278,000 and $314,000 during the year ended December 31, 2022 and 2023, respectively.

On June 13, 2022, Silvaco entered into a $4.0 million line of credit with the Company's founding principal stockholder. In connection with this line of credit, the Company recorded interest expense of $75,000 and $190,000 during the year ended December 31, 2022 and 2023, respectively. As of December 31, 2023, the balance of this line of credit was $2.0 million. See Note 10, Debt, for further discussion.

During the year ended December 31, 2023, the Company recorded $436,000 in legal expenses pursuant to an indemnification agreement for attorney’s fees incurred, by the son of the Company's founding principal stockholder incurred relating to his former role as a member of the board of directors.

In February of 2012, Gu-Guide LP, a real estate entity controlled by the Company’s founding principal stockholder, Bank of the West and Silvaco Group, Inc. entered into a loan agreement pursuant to which Bank of the West agreed to lend Gu-Guide LP certain amounts of money (the “Loan”). The Loan is secured by a building representing a total of 9,000 square feet located at 4701 Patrick Henry Drive, Santa Clara, California 95054. In the event that the proceeds from the foreclosure of the foregoing collateral are insufficient to repay the outstanding amounts under the Loan, Silvaco Group Inc. has guaranteed the repayment of the outstanding amounts under the Loan. As of December 31, 2023, $0.8 million is outstanding under the Loan.

9. Accrued Expenses and Other Long-Term Liabilities

Accrued expenses consisted of the following:

	December 31,	
	2022	2023
	(in thousands)	
Accrued employee expenses	$ 4,869	$ 6,329
Accrued taxes payable	1,608	1,278
Accrued royalties payable[(a)]	787	1,113
Contingent consideration[(b),(c)]	736	103
Accrued operating expense	950	1,293
Other	67	64
Total accrued expenses	**$ 9,017**	**$ 10,180**

Other long-term liabilities consisted of the following:

	December 31,	
	2022	2023
	(in thousands)	
Contingent consideration[(b),(c)]	56	9
Net deferred tax liabilities (Note 12)	285	212
Total other long-term liabilities	**$ 341**	**$ 221**

(a) Silvaco has entered into various renewable license agreements under which the Company has been granted access to the licensor's technology and the right to sell the technology in its product line. Royalties are payable to developers of the software at various rates and amounts, which generally are based upon unit sales, revenue or flat fees. Royalty fees are reported in cost of revenue upon delivery pursuant to the terms and conditions of the Company's contractual obligations.

(b) On March 2, 2018, Silvaco, Nangate Inc, Nangate Denmark APS (together with Nangate, Inc. referred to as "Nangate") and Nangate's shareholder representative, Ole Christian Andersen, entered into a stock purchase agreement, pursuant to which Silvaco agreed to purchase all the outstanding capital stock of Nangate. Pursuant to the stock purchase agreement, the selling shareholders of Nangate are entitled to an earn-out over a five-year period between the closing date of the acquisition and March 3, 2023. The earn-out does not have a minimum and is based on 20% of net revenues generated by Nangate on a quarterly basis, subject to an initial hold-back or payout from a working capital adjustment from the close of the acquisition. This earn-out is a liability classified as contingent consideration as the obligation is due in cash. As such the obligation is recorded at its fair value and re-valued period to period with any changes recorded to operating income (expense). In an effort to clarify its obligations with respect to the earnout payment due to the selling shareholders of Nangate, the Company sought declaratory relief in the California Superior Court in December 2020. See also, Note 14, Commitments and Contingencies, and Note 16, Fair Value of Financial Instruments.

(c) Pursuant to the January 2021 stock purchase agreement for the acquisition of PolytEDA, the selling shareholders are entitled to milestone consideration of up to $1.0 million based upon PolytEDA's technical achievement during 2021 and 2022 in addition to earn-out consideration over a three-year period beginning on the second year following the closing of the acquisition through January 2025. The earn-out does not have a minimum and is based on 20% of the operating income generated by PolytEDA on a quarterly basis, subject to an initial hold-back or payout from a working capital adjustment from the close of the acquisition. The milestone consideration and earn-out are liabilities classified as contingent consideration as the obligations are due in cash. As such the obligations are recorded at their fair value and re-valued period to period with any changes recorded to operating income (expense). See also, Note 16, Fair Value of Financial Instruments.

10. Notes Payable

On December 8, 2021, Silvaco entered a promissory note with the Company's founding principal stockholder for $0.5 million ("Promissory Note") bearing an interest rate of 3.25% payable and due on July 1, 2022. As of December 31, 2021, the balance due on the Promissory Note, including accrued interest, was $0.5 million. The Promissory Note was repaid in full in July 2022.

On March 30, 2022, Silvaco entered a second related party note payable to the Company's founding principal stockholder for $0.5 million bearing interest at 3.25% payable and due on March 30, 2023. The March 2022 Note was repaid in full in December 2022.

On June 13, 2022, Silvaco entered into a $4.0 million line of credit with the Company's founding principal stockholder bearing interest at a rate of prime plus 1% per annum. As of December 31, 2022 and 2023, the balance of this line of credit was $2.0 million. Originally the line of credit was due in full upon the earlier of (a) June 13, 2023 and (b) 10 days following the date that the Company secures subordinated financing in an amount equal to or greater than the line of credit. In May of 2023, the due date was revised to be the earlier of (a) June 13, 2024 and (b) 10 days following the date that the Company secures subordinated financing in an amount equal to or greater than the line of

credit. Concurrent with entering into the East West Bank Loan agreement, described below, Ms. Ngai-Pesic agreed to (i) extend the repayment term of the 2022 Credit Line to be the later of (a) the expiration or termination date of the East West Bank Loan or (b) June 13, 2024, and (ii) subordinate the right of repayment of any outstanding amount under the 2022 Credit Line to any amount outstanding under the East West Bank Loan. Following the extension of the repayment term, the Company has determined that as of December 31, 2023, the line of credit should be classified as current on the consolidated balance sheet, given that under the certain circumstances previously described, including early termination of the East West Bank Loan, the amount outstanding under the line of credit may become due and payable on June 13, 2024.

In December 2023, the Company entered into a loan facility with East West Bank (the “East West Bank Loan”) which has a maturity date of December 14, 2025 and provides for borrowings of up to $5.0 million bearing interest at a per annum rate equal to one half of one percent (0.5%) above the greater of (i) the prime rate or (ii) four and one half percent (4.5%). The East West Bank Loan is secured by certain of the Company’s assets, including without limitation, certain of the Company’s intellectual property and the equity of certain of the Company’s subsidiaries. In addition, the East West Bank Loan contains customary financial and negative covenants, including a six month minimum Adjusted EBITDA of $1.0 million measured at an initial test date of December 2023 and minimum cash at bank covenant of $1.5 million, with such minimum amount increasing to $10.0 million upon the effectiveness of an initial public offering. As of December 31, 2023, there were no outstanding borrowings under the East West Bank Loan and the Company is in compliance with all covenants.

11. Restricted Stock Units

Silvaco has 4.0 million shares of common stock reserved for its restricted stock units (“RSUs”) grants. Since 2014, the Company has issued RSUs to employees, directors, and advisors, pursuant to the Company's 2014 Stock Incentive Plan (the "2014 Plan"). As of December 31, 2022 and 2023, 2,643,248 and 3,398,276 RSUs were outstanding under the 2014 Plan, including 679,575 and 1,025,525 RSUs granted during the years ended December 31, 2022 and 2023, respectively. The RSUs generally have two vesting requirements, a time and service-based requirement (the “Time-Based Requirement”) and a “Liquidity Event Requirement.” The Time-Based Requirement generally requires four years for full vesting of the grants, with 25% vesting after one year and quarterly vesting over the subsequent three years. Certain grants have had modified time-based vesting requirements, including certain grants that have been issued with the time-based service requirement satisfied on the grant date. The Liquidity Event Requirement requires the completion of an underwritten initial public offering or a change of control, as defined in the Company's 2014 Plan documents.

In addition to the RSU awards described above, in the fourth quarter of 2023 the Company granted 30,000 RSUs to an executive which contain vesting conditions with both a Time-Based Requirement and a performance condition requirement linked to the Company achieving certain revenue thresholds. The grant date fair value of these awards was $414,000, and there was no stock-based compensation expense recognized related to such awards during the year ended December 31, 2023. The Company also granted to the executive a total of 75,000 RSUs that vest based on a Time-Based Requirement, a Liquidity Event Requirement and a market condition, based on the volume weighted average price of the Company’s stock as measured over a period of time. The grant date fair value of these awards of $600,000 has yet to be recognized as stock-based compensation expense, as throughout 2023 the Liquidity Event Requirement associated with such awards was not deemed probable of occurring.

The following table summarizes the Company's RSU activity for 2022 and 2023:

	Weighted Average		Restricted Stock Units		
	Fair Value	Remaining Contract Term	Granted	Time Vested	Time Unvested
Balance as of January 1, 2022	**$ 5.22**	**6.40**	**2,143,460**	**1,229,210**	**914,250**
Granted	8.08	9.14	679,575	—	679,575
Vested	7.54	8.38	—	342,450	(342,450)
Forfeited / canceled	6.40	6.88	(179,787)	—	(179,787)
Balance as of December 31, 2022	**$ 5.94**	**6.34**	**2,643,248**	**1,571,659**	**1,071,589**
Granted	10.12	9.46	1,025,525	—	1,025,525
Vested	8.70	8.36	—	489,285	(489,285)
Forfeited / canceled	7.42	7.30	(270,497)	(293)	(270,204)
Balance as of December 31, 2023	**$ 7.20**	**6.56**	**3,398,276**	**2,060,651**	**1,337,625**

The grant date fair value of the RSU awards without market conditions, was based on the Probability-Weighted Expected Return Method, which assessed the value of the Company's equity based on an analysis of future enterprise values under two IPO scenarios, one "Early" and one "Late", as well as a "Stay Private" scenario. The estimated value of the common stock in each scenario was then probability-weighted based on inputs provided by management regarding the likelihood of each scenario as of the valuation date.

The grant date fair value of the RSU awards with market conditions, was determined based on the Monte Carlo valuation model, which requires various estimates, including the expected volatility of the common stock of the Company based on the historical volatility of comparable publicly traded companies, the probability of an IPO, the IPO date and the vesting term.

Historically the Company has not recorded stock-based compensation expense for the RSUs, due to the Liquidity Event Requirement not being probable. The Company has valued the unrecorded stock-based compensation expense, using historical estimates of the fair value of the Company's common stock. Should the Liquidity Event Requirement ("Liquidity Event") become probable, the Company would incur share based compensation expense associated with (i) active employees who have fulfilled or are in the process of fulfilling the Time Based Requirement ("active employees"), (ii) certain terminated employees whose RSU's become fully vested in connection with the Liquidity Event ("terminated employees"), and (iii) the acceleration of the Time Based Requirement for certain awards to executive officers, senior management and directors as a result of Liquidity Event.

As of December 31, 2022, the Company had 2,643,248 outstanding RSUs related to active and certain terminated employees. The total grant date fair value of such outstanding RSUs in unrecognized stock-based compensation expense is $15.7 million. The 1,571,659 RSUs which have contractually met the Time-Based Requirement have a grant date fair value of $7.3 million. The remaining 1,071,589 RSUs which have not met the Time-Based Requirement have a grant date fair value of $8.4 million.

As of December 31, 2023, the Company had 3,398,276 outstanding RSUs related to active and certain terminated employees. The total grant date fair value of such outstanding RSUs in unrecognized stock-based compensation expense is $24.5 million. The 2,060,651 RSUs which have contractually met the Time-Based Requirement have a grant date fair value of $11.8 million. The remaining 1,337,625 RSUs which have not met the Time-Based Requirement have a grant date fair value of $12.7 million.

In the period in which the Liquidity Event Requirement is satisfied, the Company will record cumulative stock-based compensation expense for the service period through such date using the straight-line attribution method, net of actual forfeitures, based on the grant-date fair value of the RSU awards. Had a qualifying Liquidity Event occurred on December 31, 2023, the Time Based Requirement would be accelerated in accordance with their terms for an additional 174,450 RSUs, and the Company would recognize cumulative combined stock-based compensation expense of $14.7 million for active employees, terminated employees, executive officers, and directors.

12. Income Taxes

The domestic and foreign components of the Company's income (loss) before tax provision for the years ended December 31, 2022 and 2023, were as follows:

	December 31,	
	2022	2023
	(in thousands)	
Domestic	$ (3,533)	$ (2,620)
Foreign	1,305	3,130
Income (loss) before income tax provision	**$ (2,228)**	**$ 510**

The components of the Company's income tax provision for the years ended December 31, 2022 and 2023, were as follows:

	December 31,	
	2022	2023
	(in thousands)	
Current:		
Federal	$ 846	$ 393
State	82	62
Foreign	578	408
Deferred:		
Foreign	194	(37)
Income tax provision	**$ 1,700**	**$ 826**

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's deferred tax assets and liabilities as of December 31, 2022 and 2023 were as follows:

	December 31,	
	2022	2023
	(in thousands)	
Deferred tax assets:		
Accruals and reserves	$ 492	$ 735
Depreciable and amortizable assets	2,212	3,765
Net operating loss carryforward	587	561
Tax credits	8,037	7,328
Total deferred tax asset	**$ 11,328**	**$ 12,389**
Valuation allowance	(10,649)	(12,270)
Net deferred tax asset	**$ 679**	**$ 119**
Deferred tax liabilities		
Revenue recognition	(964)	(349)
Net deferred tax liability	**$ (285)**	**$ (230)**

The following is a reconciliation of the federal statutory income tax rate to the Company's effective tax rate for the years ended December 31, 2022 and 2023:

	December 31,	
	2022	2023
Tax at federal statutory rate	**21 %**	**21 %**
Tax credits	15 %	(60)%
Other	(59)%	(65)%
Valuation allowance	(53)%	266 %
Effective tax rate	**(76)%**	**162 %**

Management establishes a valuation allowance for those deductible temporary differences when it is more likely than not that the benefit of such deferred tax assets will not be recognized. The ultimate realization of deferred tax assets is dependent upon the Company's ability to generate taxable income during periods in which the temporary differences become deductible. Management regularly reviews the deferred tax assets for recoverability and establishes a valuation allowance based on historical taxable income, projected future taxable income, and the expected timing of the reversals of existing temporary differences. Through the year ended December 31, 2023, management believes that it is more likely than not that the deferred tax assets will not be realized, such that a full valuation allowance has been recorded.

During the years ended December 31, 2022 and 2023, the valuation allowance increased by $1.4 million and $1.6 million, respectively.

As of December 31, 2023, the Company had federal research and development tax credits of $5.7 million which begin expiring in 2028 and no net operating loss carryforwards for federal income tax purposes.

As of December 31, 2023 the Company had net operating loss carryforwards for state income tax purposes of $2.9 million which begin expiring in 2029 and state research and development credits of $8.0 million which begin expiring in 2024.

The Company has not recorded a provision for deferred U.S. tax expense that could result from the remittance of foreign undistributed earnings since the Company intends to reinvest the earnings in its foreign subsidiaries indefinitely.

The following table summarizes the activity related to the Company's gross unrecognized tax benefits:

	December 31,	
	2022	2023
	(in thousands)	
Balance as of January 1,	**$ 10,054**	**$ 6,827**
Increases related to prior years' tax positions	40	32
Increases related to current year's tax positions	426	388
Decreases related to prior years' tax positions	(3,693)	—
Balance as of December 31,	**$ 6,827**	**$ 7,247**

The Company records unrecognized tax benefits, where appropriate, for all uncertain income tax positions. The Company recorded unrecognized tax benefits for uncertain tax positions of approximately $7.2 million as of December 31, 2023, of which $1.4 million, if recognized, would impact the effective tax rate.

The Company recognizes interest and/or penalties related to uncertain tax positions in income tax expense. To the extent accrued interest and penalties do not ultimately become payable, amounts accrued will be reduced and reflected as a reduction of the overall income tax provision in the period that such determination is made. During the 2022 and 2023 tax years, interest and penalties recorded in the statements of loss were $16,000 and $19,000, respectively. The amounts of accrued interest and penalties recorded on the consolidated balance sheets as of December 31, 2022 and 2023 were $58,000 and $77,000, respectively. The Company does not believe there will be material changes in its unrecognized tax positions over the next twelve months.

The Company files income tax returns in the U.S. federal jurisdiction, various state jurisdictions and certain foreign jurisdictions. The Company is not currently under audit by the Internal Revenue Service or other similar state, local,

and foreign authorities. All tax years remain open to examination by major taxing jurisdictions to which the Company is subject for a period of three years for federal and four years for states, after the utilization of net operating losses and credits.

13. Segment Reporting and Geographical Concentration

The Company manages its operations through an evaluation of a consolidated business segment that solves semiconductor design challenges by offering affordable and competitive TCAD software, EDA software and design IP to support engineers and researchers across the globe. The chief operating decision maker, who is the Company's Chief Executive Officer, reviews financial information presented on a consolidated basis for purposes of allocating resources and evaluating financial performance. As such, the Company's operations constitute a single operating segment and one reportable segment.

Revenue is attributed to geography based upon the country in which the software license is used, or maintenance and services are delivered. The Company's single reportable segment recorded customer revenue from the following geographical areas for the years ended December 31, 2022 and 2023:

	December 31,	
Region	**2022**	**2023**
	(in thousands)	
United States	$ 14,888	$ 16,214
China	10,685	12,410
Japan	7,288	7,556
Korea	4,172	7,505
All other	9,441	10,561
Total revenue	**$ 46,474**	**$ 54,246**

Property and equipment are attributed to geography based on the country where the assets are located. The following table presents a summary of property and equipment by region as of December 31, 2022 and 2023:

	December 31,	
Region	**2022**	**2023**
	(in thousands)	
United States	$ 214	$ 242
China	162	152
Japan	64	74
All other countries	119	123
Total property and equipment	**$ 559**	**$ 591**

14. Commitments and Contingencies

Warranties

The Company typically provides its customers a warranty on its software licenses for a period of no more than 90 days and on its other tools for a period of no more than one year. Such warranties are accounted for in accordance with the authoritative guidance issued by the FASB on contingencies. For the years ended December 31, 2022 and 2023, the Company has not incurred any costs related to warranty obligations.

Indemnification

Under the terms of substantially all of its license agreements, the Company has agreed to indemnify its customers for costs and damages arising from claims against such customers based on, among other things, allegations that the Company's software infringes the intellectual property rights of a third party. In most cases, in the event of an infringement claim, the Company retains the right to (i) procure for the customer the right to continue using the software; (ii) replace or modify the software to eliminate the infringement while providing substantially equivalent functionality; or (iii) if neither (i) nor (ii) can be reasonably achieved, the Company may terminate the license agreement and refund to the customer a pro-rata portion of the license fee paid to the Company. Such indemnification provisions are accounted for in accordance with the authoritative guidance issued by the FASB on guarantees. From time to time, in the ordinary course of business, the Company receives claims for indemnification, typically from original equipment manufacturers.

Guarantees

In February of 2012, Gu-Guide LP, a real estate entity controlled by the Company's founding principal stockholder, Bank of the West and Silvaco Group, Inc. entered into a loan agreement pursuant to which Bank of the West agreed to lend Gu-Guide LP certain amounts of money. The Loan is secured by a building representing a total of 9,000 square feet located at 4701 Patrick Henry Drive, Santa Clara, California 95054. In the event that the proceeds from the foreclosure of the foregoing collateral are insufficient to repay the outstanding amounts under the Loan, Silvaco Group Inc. has guaranteed the repayment of the outstanding amounts under the Loan. As of December 31, 2023, $0.8 million is outstanding under the Loan.

Contingencies

The Company is involved in routine legal proceedings in the ordinary course of business. The outcome of such matters is not expected to have a material adverse effect on the Company's consolidated financial position, results of operations, or liquidity. However, each of these matters is subject to various uncertainties and it is possible that an unfavorable resolution of one or more of these proceedings could materially affect the Company's results of operations, cash flows or financial position.

In an effort to clarify its obligations with respect to the earnout payment due to the selling shareholders of Nangate, the Company sought declaratory relief in the California Superior Court in December 2020. In February 2021, two of the selling shareholders of Nangate (together with a third cross-complainant who joined later, the "Nangate Parties") filed a cross-complaint against the Company and two members of the Company's board of directors, alleging, among other causes of action, breach of contract, fraud, and negligent misrepresentation. In January 2022, the Nangate Parties filed a third amended cross-complaint against Silvaco, Inc. and certain of its board members alleging breach of contract, fraud, and unfair business practices and is seeking $20.0 million in damages, along with punitive damages. In the intervening period, the Company and the Nangate Parties have engaged in motion practice related to, among other items, the removal of certain of the Company's board members from the proceedings. Each party has also responded to requests for production and begun performing depositions. A trial date has been set for the second quarter of 2024. The Company is vigorously defending itself in this litigation. The Company accordingly has not recorded a charge for this contingency.

On August 19, 2021, Aldini sued the Company, the Company's French affiliate, a member of the Company's board of directors and the Company's CEO, among numerous other noncompany defendants, in connection with the Company's interactions with Dolphin Design SAS ("Dolphin"). Aldini's allegations center around the bankruptcy and reorganization of Dolphin in 2018 and Silvaco, Inc.'s acquisition of certain memory assets of Dolphin, which Aldini alleges was done in violation of its rights as a shareholder of Dolphin. Aldini AG's First Amended Complaint asserts various tort claims against Silvaco, Inc., Silvaco France, and officers Iliya Pesic and Babak Taheri, including claims for trade secret theft, conspiracy, and intentional interference with a prospective economic advantage. Silvaco, Inc. filed a motion to dismiss; the trade secret theft and conspiracy claims were dismissed with prejudice and the intentional tort claims were dismissed with leave to amend. On August 23, 2022, Aldini AG filed a Second Amended Complaint against Silvaco, Inc., Silvaco France, and officers Iliya Pesic and Babak Taheri that included similar claims of trade secret theft, conspiracy, and intentional interference with a prospective economic advantage in relation to Silvaco, Inc.'s acquisition of certain assets of Dolphin Design SAS. Aldini AG seeks $703.0 million and punitive damages. On March 17, 2023, the Second Amended Complaint was dismissed on all counts, subject to a right of appeal. Aldini has filed a notice of appeal although their mediation brief relating to this appeal does not include Silvaco. The Company accordingly has not recorded a charge for this contingency.

The Company's software solutions and technology are subject to export control and import laws and regulations of applicable jurisdictions. Certain of the Company's software solutions are subject to U.S. export controls and sanctions, including the Export Administration Regulations, U.S. Customs regulations, and the economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Control ("OFAC"). Between August 2019 and June 2022, the Company filed various voluntary disclosures with United States Department of Commerce Bureau of Industry and Security ("BIS") regarding potential violations of U.S. export control laws and regulations, specifically, the export of the Company's licenses to certain parties designated on BIS's Entity List and Unverified List, and the export of certain software modules without a license which was required at the time of the transaction. Such software modules were declassified by BIS in October 2020 to a lesser controlled export classification, meaning that such software generally no longer requires an export license. In July and October 2022 and January 2023, the Company also filed voluntary disclosures with OFAC regarding potential violations of OFAC sanctions programs, specifically the download of certain Company software modules by users in U.S. embargoed countries. The matters described in these voluntary disclosures remain pending before BIS and OFAC. The Company cannot estimate any reasonable possible loss at this time and has not recorded a charge for this contingency. However, if either organization chose to bring an enforcement action against the Company such actions could result in significant penalties.

After establishing its branch office in Russia in 2017, the Company used a local bank ("Bank A") as its primary financial institution and engaged a local service provider ("Local Agent") to act as its tax, accounting and legal consultant to advise with respect to matters affecting the branch office. As a result of the conflict in Ukraine, Bank A was sanctioned by OFAC on April 6, 2022, and, based on the recommendation from the Local Agent, the Company established replacement bank accounts at another local bank ("Bank B"), which were opened on June 2, 2022. Following the opening of the new accounts at Bank B, the Local Agent used the Bank B accounts to receive injections of funds from the Company's US bank accounts; transferred the funds from Bank B to Bank A and paid compensation of certain of the Company's employees and other expenses using the Company's bank accounts at Bank A. The discovery of transactions involving the Company's funds through Bank A following the establishment of the Company's accounts at Bank B led to the Company's subsequent voluntary self-disclosure in October 2023 (the "October OFAC Filing"). The Company cannot estimate any reasonable possible loss at this time and has not recorded a charge for this contingency. However, if OFAC chose to bring an enforcement action against the Company such actions could result in significant penalties.

On September 22, 2023, the Company received a demand letter from a customer related to alleged deficiencies in certain intellectual property used by the customer. Management is in initial discussions with the customer regarding the nature of the claims set forth in the letter. Given the early stages of the matter and the unknown financial impact, the Company cannot estimate any reasonable range of loss. The Company accordingly has not recorded a charge for this contingency.

15. Defined Contribution Plan

The Company maintains a defined contribution or 401(k) Plan for its qualified U.S. employees. Participants may contribute a percentage of their compensation on a pre-tax basis, subject to a maximum annual contribution imposed by the Internal Revenue Code. During each of the years ended December 31, 2022 and 2023, the Company contributed $0.1 million related to the 401(k) Plan. In connection with the 401(k) Plan, the Company recorded expense of $0.1 million and $0.5 million during the years ended December 31, 2022 and 2023, respectively.

16. Fair Value of Financial Instruments

Financial Instruments Measured at Fair Value on a Recurring Basis

The following tables present the Company's liabilities that are measured on a recurring basis as of December 31, 2022 and 2023:

	Fair value measurements as of December 31, 2022			
		(in thousands)		
	Carrying value	Level 1	Level 2	Level 3
Liabilities:				
Contingent consideration	792	—	—	792
Total	**$ 792**	**$ —**	**$ —**	**$ 792**

	Fair value measurements as of December 31, 2023			
		(in thousands)		
	Carrying value	Level 1	Level 2	Level 3
Liabilities:				
Contingent consideration	112	—	—	112
Total	**$ 112**	**$ —**	**$ —**	**$ 112**

Pursuant to the stock purchase agreements for the acquisition of Nangate and PolytEDA, the selling shareholders are entitled to additional milestone and earn out consideration based on net revenues, operating income and technical achievement. The milestone consideration and earn-out liabilities are classified as contingent consideration as the obligations are due in cash. As such the obligations are recorded at their fair value and re-valued period to period with any changes recorded to operating income (expense).

The Company's contingent consideration is valued using a discounted cash flow model, and the assumptions used in preparing the discounted cash flow model include estimates for interest rates and the amount of cash flows, in addition to the expected net revenue, operating income and technical achievement of the acquired technology. See also, Note 9, Accrued Liabilities and Note 14, Commitments and Contingencies.

The following is a reconciliation of changes in the liability related to contingent consideration during the years ended December 31, 2022 and 2023:

	Year Ended December 31,	
	2022	2023
	(in thousands)	
Fair value as of January 1,	**$ 1,870**	**$ 792**
Change in fair value	(210)	325
Earn-out payments	(376)	(502)
Milestone achievement paid	(500)	(500)
Foreign exchange	8	(3)
Fair value as of December 31,	**$ 792**	**$ 112**

Nonfinancial Assets Measured at Fair Value on a Nonrecurring Basis

Nonfinancial assets such as property and equipment, intangibles assets, and goodwill are evaluated for impairment and adjusted to fair value using Level 3 inputs only when impairment is recognized.

In connection with Russia's invasion of Ukraine in February 2022, the Company recorded an impairment charge of $560,000 to reduce the carrying value of $284,000 of developed technology and $276,000 of customer relationships associated with the Company's Ukrainian subsidiary which management determined would not be recoverable. The related intangible assets were deemed fully impaired and therefore did not include any sensitive level 3 estimates or inputs as of December 31, 2022.

17. Subsequent Events

During February 2024, the Company drew $3.1 million on the East West Bank Loan.

During February 2024 the board of directors approved the grant of 529,279 of restricted stock units under the 2014 Plan. Substantially all the awards include a Time-Based Requirement, which generally requires four years for full vesting of the grants, with 25% vesting after one year and quarterly vesting over the subsequent three years. In addition, such awards contain a Liquidity Event Requirement, which requires the completion of an underwritten initial public offering or a change of control, as defined in the Company's 2014 Plan documents.

On February 29, 2024, the Company entered into an Amended and Restated Employment Agreement with an executive officer (the "A&R Employment Agreement"), effective as of January 1, 2024. The A&R Employment Agreement amended and restated the executive officer's offer letter agreement with the Company dated November 23, 2021. The A&R Employment Agreement provides that the executive officer is entitled to receive an annual base salary of $485,000 effective as of December 1, 2023. Such base salary shall be evaluated annually by the Board beginning in early 2025, with any Board-approved adjustments effective retroactively as of January 1 of such adjustment year. Additionally, beginning with the fiscal year 2024, the executive officer is also entitled to an annual cash incentive bonus of 60% of his then-current base salary. Further, in accordance with the terms A&R Employment Agreement, the executive officer will earn an additional 350,000 RSUs if the Company closes an initial public offering prior to December 31, 2024. If the 350,000 additional RSUs are earned, (i) 175,000 of these RSUs will vest on the business day after the closing of the initial public offering and (ii) 175,000 RSUs will vest over a two-year period following the IPO, with 50% of these RSUs vesting on the one-year anniversary of the closing of the initial public offering and 1/8th of these RSUs vesting in equal quarterly installments during the next 4 quarters thereafter.

18. Events [Unaudited] Subsequent to the Date of the Report of Independent Registered Public Accounting Firm

On March 18, 2024, the Company's board of directors authorized an extension of the maximum term of the 2014 Plan to March 18, 2034 and increased the maximum number of shares of common stock authorized for issuance under the 2014 Plan to 4,600,000 shares.

During March 2024, the Company drew $1.2 million on the East West Bank Loan.

On April 11, 2024, the Company amended its license agreement to offer SIP developed in partnership with a third party vendor to extend its term for an additional five years.

On April 16, 2024, the Company entered into a note purchase agreement with Micron Technology Inc. ("Micron"), which has been and is a customer of the Company, pursuant to which the Company issued to Micron a senior subordinated convertible promissory note in the principal amount of $5,000,000 (the "Micron Note"). The Micron Note

is contractually subordinated to the East West Bank Loan through a subordination agreement with East West Bank, but is senior to all of our other existing debt and will be senior to any new future debt incurred (other than any undrawn amount available under the current East West Bank Loan) while it is outstanding. The Micron Note matures three years after the date of issuance and accrues interest at the rate of 8% annually, with principal and interest due upon maturity. The Micron Note will mandatorily convert into a number of shares equal to (i) the outstanding principal amount and accrued interest divided by (ii) a conversion price equal to (a) the price of the Company's common stock issued in an initial public offering, times (b) 0.90 if the initial public offering of common stock is consummated on or prior to May 31, 2024; 0.85 if the initial public offering of common stock is consummated between June 1, 2024 and April 16, 2025; and 0.80 if the initial public offering of common stock is consummated after April 16, 2025, if in each case such shares of our common stock will be eligible for resale pursuant to the registration statement of which this prospectus forms a part. The Company can prepay the Micron Note only with the prior consent of the holder of the Micron Note. If an initial public offering does not occur and the Micron Note is not converted into Company shares, the balance of the Micron Note, including all accrued and unpaid interest shall be repaid at maturity. Further, if the shares to be issued to Micron upon conversion of the Micron Note are not registered concurrently with the initial public offering, the principal and accrued and unpaid interest of the previously outstanding Micron Note shall be repaid on the first business day following the date of the initial public offering.

6,000,000 Shares

Common Stock

PRELIMINARY PROSPECTUS

Jefferies **TD Cowen**

B. Riley Securities **Craig-Hallum Capital Group** **Rosenblatt**

, 2024

[Alternate Page for Selling Stockholder Resale Prospectus]

The information contained in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED APRIL 30, 2024

PRELIMINARY PROSPECTUS

Shares

SILVACO

Silvaco Group, Inc.

Common Stock

This prospectus relates to the offer for sale of 310,562 shares of common stock, par value $0.0001 per share, by Micron Technology, Inc., referred to as the selling stockholder throughout this prospectus. We will not receive any of the proceeds from the sale of shares of common stock by the selling stockholder.

The distribution of securities offered hereby may be effected in one or more transactions that may take place on the Nasdaq Global Select Market ("Nasdaq") including ordinary brokers' transactions, privately negotiated transactions or through sales to one or more dealers for resale of such securities as principals, at market prices prevailing at the time of sale, at prices related to such prevailing market prices or at negotiated prices. Usual and customary or specifically negotiated brokerage fees or commissions may be paid by the selling stockholder. No sales of the shares covered by this prospectus shall occur until the shares of common stock sold in our initial public offering begin trading on Nasdaq. Currently, there is no public market for our common stock. We have applied to list our common stock on Nasdaq under the symbol "SVCO."

The selling stockholder and intermediaries through whom such securities are sold may be deemed "underwriters" within the meaning of the Securities Act of 1933, as amended (the Securities Act), with respect to the securities offered hereby, and any profits realized or commissions received may be deemed underwriting compensation.

On , 2024, a registration statement (of which this prospectus forms a part) under the Securities Act with respect to our initial public offering (the "IPO") of shares of common stock was declared effective by the Securities and Exchange Commission. We received approximately $ million in net proceeds from the offering (assuming no exercise of the underwriters' over-allotment option) after payment of underwriting discounts and commissions and estimated expenses of the offering.

Investing in our common stock involves a high degree of risks. See "Risk Factors" beginning on page 19.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

, 2024

[Alternate Page for Selling Stockholder Resale Prospectus]

SHARES REGISTERED FOR RESALE

Overview

Pursuant to the terms of the senior subordinated convertible note (the "Micron Note") in a principal amount of $5.0 million entered into on April 16, 2024 with Micron, the Micron Note will mandatorily convert into a number of shares equal to (i) the outstanding principal amount and accrued interest divided by (ii) a conversion price equal to (a) the price to the public set forth on the front cover of the prospectus, times (b) (b) 0.90 if the initial public offering of common stock is consummated on or prior to May 31, 2024; 0.85 if the initial public offering of common stock is consummated between June 1, 2024 and April 16, 2025; and 0.80 if the initial public offering of common stock is consummated after April 16, 2025, if in each case such shares of our common stock will be eligible for resale pursuant to the registration statement of which this prospectus forms a part. Based on a $18.00 per share price, which is the midpoint of the price range on the cover of the prospectus used in the IPO (the "Midpoint Price"), 310,562 shares of our common stock would be issuable to Micron upon the conversion of the Micron Note. All of such shares will be eligible for resale by Micron pursuant to this Selling Stockholder Resale Prospectus.

Registration Rights

Pursuant to the convertible note purchase agreement entered into on April 16, 2024 with Micron, we agreed to use our reasonable best efforts to register the resale of the shares of common stock issuable upon the conversion of $5.0 million in aggregate principal amount of the Micron Note (the "Conversion Shares") concurrently with the registration of our initial public offering and to keep the related registration statement continuously effective until all of the shares issuable upon the conversion of such Micron Note have been sold thereunder. We have registered these shares of common stock under the registration statement of which this prospectus forms a part. These shares have been registered to permit public sales of such shares, and the selling stockholder may offer these shares for resale from time to time pursuant to this prospectus. The selling stockholder may also sell, transfer or otherwise dispose of all or a portion of its Conversion Shares in transactions exempt from the registration requirements of the Securities Act or pursuant to another effective registration statement covering the conversion shares.

[Alternate Page for Selling Stockholder Resale Prospectus]

THE OFFERING

Common stock offered by the selling stockholder	310,562 shares.
Selling stockholder	The selling stockholder identified in “Selling Stockholder.”
Common stock to be outstanding after this offering	28,545,663 shares.
Use of proceeds	We will not receive any proceeds from the sale of common stock by the selling stockholder in this offering. See “Use of Proceeds.”
Risk factors	Investing in our common stock involves a high degree of risk. See “Risk factors” beginning on page 19 of this prospectus and the risk factors described in the accompanying prospectus for a discussion of factors you should consider carefully before investing in our common stock.
Listing	We have applied to list our common stock on Nasdaq under the symbol “SVCO.”

[Alternate Page for Selling Stockholder Resale Prospectus]

USE OF PROCEEDS

We will not receive any of the proceeds from the sale of our common stock by Micron. All proceeds from the sale of the Conversion Shares will be paid directly to Micron.

[Alternate Page for Selling Stockholder Resale Prospectus]

SELLING STOCKHOLDER

An aggregate of 310,562 shares of our common stock (assuming the Midpoint Price) are currently being offered under this prospectus by a selling stockholder who is the holder of our Micron Note.

The following table sets forth certain information with respect to the selling stockholder for whom we are registering shares of common stock for resale to the public. The selling stockholder has not, prior to the investment in the Micron Note, been an investor in us. However, we have had an arm's-length customer relationship with the selling stockholder in the ordinary course of our business. To our knowledge, the person named in the table has sole voting and investment power with respect to the shares of common stock set forth opposite such person's name. The selling stockholder is not a broker-dealer or an affiliate of broker-dealer, unless otherwise noted.

Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission. The percentage of shares beneficially owned after the offering is based on 28,545,663 shares of common stock to be outstanding after this offering, including 6,000,000 shares of common stock sold in our initial public offering and 310,562 shares of common stock to be issued pursuant to the Micron Note and assuming no exercise of the underwriters' over-allotment option.

		Common Stock Beneficially Owned After Offering		
Selling Stockholder	**Number of Shares of Common Stock Beneficially Owned[1]**	**Shares Being Offered[1]**	**Number of Shares Outstanding**	**Percent of Shares**
Micron Technology, Inc.	310,562	310,562	28,545,663	1.1 %

* No selling stockholder is a broker dealer or an affiliate of a broker-dealer.

(1) Estimate based on the Midpoint Price of $18.00 per share and an assumed conversion into 310,562 shares of the Company's common stock, which is equal to (i) the aggregate principal amount outstanding of the Micron Note and any accrued interest thereon, divided by (ii) a number equal to 90% of the initial public offering price, pursuant to the Micron Note.

PLAN OF DISTRIBUTION

The Selling Stockholder, which as used herein includes donees, pledgees, transferees, distributees or other successors-in-interest selling shares of our common stock or interests in our common stock received after the date of this prospectus from the Selling Stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer, distribute or otherwise dispose of certain of its shares of common stock or interests in our common stock on any stock exchange, market or trading facility on which shares of our common stock are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

We are required to pay all fees and expenses incident to the registration of the shares of our common stock to be offered and sold pursuant to this prospectus.

We will not receive any of the proceeds from the sale of the securities by the Selling Stockholder. The aggregate proceeds to the Selling Stockholder will be the purchase price of the securities less any discounts and commissions borne by the Selling Stockholder. The shares of common stock beneficially owned by the Selling Stockholder covered by this prospectus may be offered and sold from time to time by the Selling Stockholder. The Selling Stockholder will act independently of us in making decisions with respect to the timing, manner and size of each sale. Such sales may be made on one or more exchanges or in the over-the-counter market or otherwise, at prices and under terms then prevailing or at prices related to the then current market price or in negotiated transactions. The Selling Stockholder may sell its shares by one or more of, or a combination of, the following methods:

purchases by a broker-dealer as principal and resale by such broker-dealer for its own account pursuant to this prospectus;

- ordinary brokerage transactions and transactions in which the broker solicits purchasers;
- block trades in which the broker-dealer so engaged will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- an over-the-counter distribution in accordance with the rules of Nasdaq;
- through trading plans entered into by a Selling Stockholder pursuant to Rule 10b5-1 under the Exchange Act, that are in place at the time of an offering pursuant to this prospectus and any applicable prospectus supplement hereto that provide for periodic sales of their securities on the basis of parameters described in such trading plans;
- to or through underwriters or broker-dealers;
- in “at the market” offerings, as defined in Rule 415 under the Securities Act, at negotiated prices, at prices prevailing at the time of sale or at prices related to such prevailing market prices, including sales made directly on a national securities exchange or sales made through a market maker other than on an exchange or other similar offerings through sales agents;
- in privately negotiated transactions;
- in options transactions;
- through a combination of any of the above methods of sale; or
- any other method permitted pursuant to applicable law.

In addition, any shares that qualify for sale pursuant to Rule 144 may be sold under Rule 144 rather than pursuant to this prospectus.

To the extent required, this prospectus may be amended or supplemented from time to time to describe a specific plan of distribution. In connection with distributions of the shares or otherwise, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions. In connection with such transactions, broker-dealers or other financial institutions may engage in short sales of shares of common stock in the course of hedging transactions, broker-dealers or other financial institutions may engage in short sales of shares of common stock in the course of hedging the positions they assume with the Selling Stockholder. The Selling Stockholder may also sell shares of common stock short and redeliver the shares to close out such short positions. The Selling Stockholder may also enter into option or other transactions with broker-dealers or other financial institutions which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction). The Selling Stockholder may also pledge shares to a broker-dealer or other financial institution, and, upon a default, such broker-dealer or other financial institution, may effect sales of the pledged shares pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The Selling Stockholder may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by the Selling Stockholder or borrowed from the Selling Stockholder or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from the Selling Stockholder in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and will be identified in the applicable prospectus supplement (or a post-effective amendment). In addition, the Selling Stockholder may otherwise loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus. Such financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

In effecting sales, broker-dealers or agents engaged by the Selling Stockholder may arrange for other broker-dealers to participate. Broker-dealers or agents may receive commissions, discounts or concessions from the Selling Stockholder in amounts to be negotiated immediately prior to the sale.

In offering the shares covered by this prospectus, the Selling Stockholder and any broker-dealers who execute sales for the Selling Stockholder may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. Any profits realized by the Selling Stockholder and the compensation of any broker-dealer may be deemed to be underwriting discounts and commissions.

In order to comply with the securities laws of certain states, if applicable, the shares must be sold in such jurisdictions only through registered or licensed brokers or dealers. In addition, in certain states the shares may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

The anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the Selling Stockholders and its affiliates. In addition, we will make copies of this prospectus available to the Selling Stockholder for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The Selling Stockholder may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

At the time a particular offer of shares is made, if required, a prospectus supplement will be distributed that will set forth the number of shares being offered and the terms of the offering, including the name of any underwriter, dealer or agent, the purchase price paid by any underwriter, any discount, commission and other item constituting compensation, any discount, commission or concession allowed or reallowed or paid to any dealer, and the proposed selling price to the public.

LEGAL MATTERS

The validity of the shares of common stock being offered by this prospectus will be passed upon for us by DLA Piper LLP (US), Palo Alto, California.

EXPERTS

The consolidated financial statements of Silvaco Group, Inc. as of December 31, 2022 and 2023, and for the years then ended, included in this prospectus have been audited by Moss Adams LLP, an independent registered public accounting firm, as stated in their report (which report expresses an unqualified opinion and includes an explanatory paragraph relating to a change in method for accounting for credit losses on financial instruments due to the adoption of ASC 326). Such consolidated financial statements are included in reliance upon the report of such firm given their authority as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1, including exhibits and schedules, under the Securities Act, with respect to the shares of common stock being offered by this prospectus. This prospectus, which constitutes part of the registration statement, does not contain all of the information in the registration statement and its exhibits. For further information with respect to us and the common stock offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

You can read our SEC filings, including the registration statement, over the Internet at the SEC's website at www.sec.gov. You may also request a copy of these filings, at no cost, by writing us at 4701 Patrick Henry Drive, Building #23, Santa Clara, CA 95054.

Upon completion of this offering, we will be subject to the information reporting requirements of the Exchange Act and we will file reports, proxy statements and other information with the SEC. These reports, proxy statements and other information will be available at the web site of the SEC referred to above. We also maintain a website at www.silvaco.com, at which, following the completion of this offering, you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Information contained on or accessible through our website is not a part of this prospectus, and the inclusion of our website address in this prospectus is an inactive textual reference only.

[Alternate Page for Selling Stockholder Resale Prospectus]

Through and including , 2024, (the 25th day after the date of this prospectus), all dealers effecting transactions in the common stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

Shares

Common Stock

PRELIMINARY PROSPECTUS

, 2024

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth all costs and expenses, other than the underwriting discounts and commissions, payable by Silvaco Group, Inc., or the Registrant, in connection with the offer and sale of the common stock being registered. All amounts shown are estimates except for the Securities and Exchange Commission, or the SEC, registration fee, the FINRA filing fee and exchange listing fee.

	Amount
SEC registration fee	20,170
FINRA filing fee	20,998
Nasdaq filing fee	295,000
Printing and engraving expenses	450,000
Legal fees and expenses	2,800,000
Accounting fees and expenses	1,800,000
Transfer agent and registrar fees and expenses	5,000
Miscellaneous fees and expenses	495,180
Total	5,886,348

* To be provided by amendment.

Item 14. Indemnification of Directors and Officers.

The Registrant is incorporated under the laws of the State of Delaware. Section 145 of the Delaware General Corporation Law, or the DGCL, provides that a Delaware corporation may indemnify any persons who were, are, or are threatened to be made, parties to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person is or was an officer, director, employee or agent of such corporation, or is or was serving at the request of such corporation as an officer, director, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided that such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his or her conduct was illegal. A Delaware corporation may indemnify any persons who were, are, or are threatened to be made, a party to any threatened, pending or completed action or suit by or in the right of the corporation by reason of the fact that such person is or was a director, officer, employee or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit provided such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests, except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him or her against the expenses (including attorneys' fees) actually and reasonably incurred.

Upon the closing of this offering, the Registrant's amended and restated certificate of incorporation will provide for the indemnification of its directors to the fullest extent permitted under the DGCL. The Registrant's amended and restated bylaws provide for the indemnification of its directors and officers to the fullest extent permitted under the DGCL. Each of the Registrant's amended and restated certificate of incorporation and amended and restated bylaws will become effective upon completion of this offering.

Section 102(b)(7) of the DGCL permits a corporation to provide in its certificate of incorporation that a director of the corporation will not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duties as a director, except for liability for any:

- transaction from which the director derives an improper personal benefit;

- act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or redemption of shares; or
- breach of a director's duty of loyalty to the corporation or its stockholders.

The Registrant's amended and restated certificate of incorporation will include such a provision. Under the Registrant's amended and restated bylaws, expenses incurred by any director or officers in defending any such action, suit or proceeding in advance of its final disposition will be paid by the Registrant upon delivery to it of an undertaking, by or on behalf of such director or officer, to repay all amounts so advanced if it will ultimately be determined that such director or officer is not entitled to be indemnified by the Registrant, as long as such undertaking remains required by the DGCL. Section 174 of the DGCL provides, among other things, that a director who willfully or negligently approves of an unlawful payment of dividends or an unlawful stock purchase or redemption, may be held liable for such actions. A director who was either absent when the unlawful actions were approved or dissented at the time may avoid liability by causing his or her dissent to such actions to be entered in the books containing minutes of the meetings of the board of directors at the time such action occurred or immediately after such absent director receives notice of the unlawful acts.

As permitted by the DGCL, the Registrant has entered into indemnity agreements with each of its directors and officers that require the Registrant, among other things, to indemnify its directors and officers against certain liabilities which may arise by reason of their status or service as directors or officers to the fullest extent not prohibited by law. These indemnification agreements may be sufficiently broad to permit indemnification of the Registrant's officers and directors for liabilities, including reimbursement of expenses incurred, arising under the Securities Act. Under these agreements, the Registrant is not required to provide indemnification for certain matters. The indemnification agreements also set forth certain procedures that will apply in the event of a claim for indemnification thereunder.

There is at present no pending litigation or proceeding involving any of the Registrant's directors or executive officers as to which indemnification is required or permitted, and the Registrant is not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

Prior to the closing of this offering, the Registrant intends to enter into separate indemnification agreements with each of their directors and executive officers. Each indemnification agreement will provide, among other things, for indemnification to the fullest extent permitted by law and our amended and restated certificate of incorporation and amended and restated bylaws against any and all expenses, judgments, fines, penalties and amounts paid in settlement of any claim. The indemnification agreements will provide for the advancement or payment of all expenses to the indemnitee and for the reimbursement to us if it is found that such indemnitee is not entitled to such indemnification under applicable law and our amended and restated certificate of incorporation and amended and restated bylaws.

The Registrant intends to enter into an insurance policy that covers its officers and directors with respect to certain liabilities, including liabilities arising under the Securities Act or otherwise.

The Registrant plans to enter into an underwriting agreement which provides that the underwriters are obligated, under some circumstances, to indemnify the Registrant's directors, officers and controlling persons against specified liabilities, including liabilities under the Securities Act.

Item 15. Recent Sales of Unregistered Securities.

Since January 1, 2021, we have granted to our employees, consultants, and other service providers, restricted stock units representing an aggregate of 2,421,100 shares of our common stock, under our 2014 Plan.

The issuances of the securities described above were deemed to be exempt from registration under Rule 701 promulgated under the Securities Act as transactions under compensatory benefit plans and contracts relating to compensation. The recipients of such securities were our directors, employees or bona fide consultants and received the securities under our equity incentive plan. Appropriate legends were affixed to the securities issued in these transactions. Each of the recipients of securities in these transactions had adequate access, through employment, business or other relationships, to information about us.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits.

The list of exhibits is set forth under "Exhibit Index" at the end of this registration statement and is incorporated herein by reference.

(b) Financial Statement Schedules.

No financial statement schedules are provided because the information called for is not required or is shown either in the financial statements or the notes thereto.

Item 17. Undertakings.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers, and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer, or controlling person of the Registrant in the successful defense of any action, suit, or proceeding) is asserted by such director, officer, or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby further undertakes that:

(a) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act will be deemed to be part of this registration statement as of the time it was declared effective.

(b) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus will be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time will be deemed to be the initial *bona fide* offering thereof.

EXHIBIT INDEX

Exhibit No.	Description
1.1	Form of Underwriting Agreement.
3.1.1*	Certificate of Incorporation, dated November 18, 2009.
3.1.2*	Certificate of Amendment to the Amended and Restated Certificate of Incorporation, dated November 15, 2013.
3.1.3	Second Certificate of Amendment to the Amended and Restated Certificate of Incorporation, dated April 29, 2024 and as currently in effect.
3.2	Form of Amended and Restated Certificate of Incorporation, to be effective as of immediately prior to the completion of this offering.
3.3*	Bylaws, as amended and as currently in effect.
3.4	Form of Amended and Restated Bylaws, to be effective as of immediately prior to the completion of this offering.
4.1	Form of Common Stock Certificate of the Registrant.
5.1	Opinion of DLA Piper LLP (US).
10.1+	Form of Indemnification Agreement between the Registrant and its directors and officers.
10.2+*	Amended and Restated 2014 Stock Incentive Plan and Form of Restricted Stock Unit Agreement thereunder.
10.3+	2024 Stock Incentive Plan and Forms of Stock Option Agreement, Notice of Exercise, Stock Option Grant Notice, Restricted Stock Unit Agreement and Restricted Stock Agreement thereunder.
10.4+	2024 Employee Stock Purchase Plan.
10.5+*	Offer Letter Agreement, dated December 25, 2021, between the Registrant and Dr. Raul Camposano.
10.6+*	Offer Letter Agreement, dated July 20, 2023, between the Registrant and Ryan Benton.
10.7+*	Consulting Advisory Agreement, dated January 12, 2022, between the Registrant and Katherine S. Ngai-Pesic.
10.8+*	Consulting Advisory Agreement, dated January 12, 2022, between the Registrant and Iliya I. Pesic.
10.9+*	Amended and Restated Consulting Advisory Agreement, dated December 1, 2023, between the Registrant and Iliya I. Pesic.
10.10+*	Consulting Advisory Agreement, dated December 1, 2023, between the Registrant and Iliya I. Pesic.
10.11+*	Offer Letter and Termination of Separation Agreement, dated November 23, 2021, between the Registrant and Dr. Babak A. Taheri, as amended by the Amendment to the Offer Letter and Termination of Separation Agreement, dated November 16, 2022.
10.12+*	Separation Agreement and Release, dated September 1, 2021, between the Registrant and Dr. Babak A. Taheri.
10.13+*	Amended and Restated Employment Agreement, dated February 29, 2024, between the Registrant and Dr. Babak A. Taheri.
10.14*	California Commercial Lease Agreement, dated May 1, 2022, between Silvaco, Inc. and Kipee International, Inc.
10.15*	Lease Relating to Silvaco Suite, First Floor, Silvaco Technology Centre Compass Point, St. Ives, Cambridgeshire, dated January 1, 2020, between Silvaco Europe Ltd. and New Horizons (Cambridge) Ltd.
10.16*	Commercial Lease, dated April 28, 2017, by and between the Registrant, as successor, and New Horizons, as amended by the Commercial Lease, dated September 30, 2021.
10.17+*	Executive Severance Plan.
10.18*	Promissory Note, dated December 8, 2021, between Silvaco, Inc. and Kipee International, Inc., as amended by Amendment to Promissory Note, dated April 18, 2022, between Silvaco, Inc., Kipee International, Inc. and Katherine S. Ngai-Pesic.

10.19*	Promissory Note, dated March 30, 2022, between Silvaco, Inc. and Katherine S. Ngai-Pesic.
10.20*	Promissory Note and Line of Credit, dated June 13, 2022, between Silvaco, Inc. and Katherine S. Ngai-Pesic.
10.21*	Amendment to Promissory Note and Line of Credit, dated May 25, 2023, between Silvaco, Inc. and Katherine S. Ngai-Pesic.
10.22*	Amendment to Promissory Note and Line of Credit, dated December 11, 2023, between Silvaco, Inc. and Katherine S. Ngai-Pesic.
10.23*	Loan and Security Agreement, dated December 14, 2023, between the Registrant and East West Bank.
10.24*	Registration Rights Agreement, dated April 12, 2024, among the Registrant and the stockholders named therein.
10.25*	Stockholders Agreement, dated April 12, 2024, among the Registrant and the stockholders named therein.
10.26#*	Technology License and Distribution Agreement, dated October 30, 2015, between the Registrant, as successor, and NXP Semiconductors Netherlands B.V., originally entered into by Registrant on September 1, 2016, as amended by First Amendment to Technology License and Distribution Agreement, dated April 20, 2016, Second Amendment to Technology License and Distribution Agreement, dated October 18, 2016, Third Amendment to Technology License and Distribution Agreement, dated November 10, 2018, Fourth Amendment to Technology License and Distribution Agreement, dated March 22, 2022 and Fifth Amendment to Technology License and Distribution Agreement, dated April 11, 2024.
10.27*	Note Purchase Agreement, dated April 16, 2024, between the Registrant and Micron Technology, Inc.
21.1	Subsidiaries of the Registrant.
23.1	Consent of Moss Adams LLP.
23.2	Consent of DLA Piper LLP (US) (included in Exhibit 5.1).
24.1*	Power of Attorney.
107	Filing Fee Table.

* Previously filed.
\+ Indicates management contract or compensatory plan.
\# Certain confidential information – identified by a bracketed asterisk "[*]" – has been omitted from this exhibit pursuant to Item 601(b)(10) of Regulation S-K. The Registrant agrees to furnish supplementally a copy of an unredacted copy to the SEC upon request.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Santa Clara, State of California, on the 30th of April, 2024.

SILVACO GROUP, INC.

/s/ Dr. Babak A. Taheri
Dr. Babak A. Taheri
Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Dr. Babak A. Taheri Dr. Babak A. Taheri	Chief Executive Officer and Director *(Principal Executive Officer)*	April 30, 2024
/s/ Ryan Benton Ryan Benton	Chief Financial Officer *(Principal Financial and Accounting Officer)*	April 30, 2024
* Katherine S. Ngai-Pesic	Chair of the Board	April 30, 2024
* Dr. Hau L. Lee	Lead Independent Director	April 30, 2024
* Anita Ganti	Director	April 30, 2024
* William H. Molloie, Jr.	Director	April 30, 2024
* Anthony K. K. Ngai	Director	April 30, 2024
* Dr. Walden C. Rhines	Director	April 30, 2024
* Jodi L. Shelton	Director	April 30, 2024

*By: /s/ Dr. Babak A. Taheri
Dr. Babak A. Taheri
Attorney-in-fact

CALCULATION OF FILING FEE TABLE

FORM S-1
REGISTRATION STATEMENT UNDER
THE SECURITIES ACT OF 1933

Silvaco Group, Inc.
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Proposed Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Common stock, $0.0001 par value per share	Rule 457(a)	6,900,000	$19.00	$131,100,000.00(1)	$0.0001476	$19,350.36
Equity	Common stock, $0.0001 par value per share to be issued upon conversion of outstanding Micron Note(2)	Rule 457(a)	292,398	$19.00	$5,555,562.00	$0.0001476	$820.00
Total Offering Amounts					$136,655,562.00		$20,170.36
Total Fees Previously Paid							$15,498.00
Total Fee Offsets(3)							—
Net Fee Due							$4,672.36

(1) Includes 900,000 shares of common stock that the underwriters have the option to purchase to cover over-allotments, if any, under the Public Offering Prospectus.
(2) Represents shares of the Registrant's common stock being registered for resale under the Selling Stockholder Resale Prospectus that are issuable upon conversion of $5.0 million aggregate principal amount of outstanding indebtedness under the convertible unsecured promissory note (the "Micron Note") entered into on April 16, 2024, between the Registrant and Micron Technology, Inc.
(3) The Registrant does not have any fee offsets.

Silvaco Group, Inc.

UNDERWRITING AGREEMENT

[●], 2024

JEFFERIES LLC
TD SECURITIES (USA) LLC
As Representatives of the several Underwriters

c/o JEFFERIES LLC
520 Madison Avenue
New York, New York 10022

c/o TD SECURITIES (USA) LLC
1 Vanderbilt Avenue
New York, New York 10017

Ladies and Gentlemen:

Introductory. Silvaco Group, Inc., a Delaware corporation (the "**Company**"), proposes to issue and sell to the several underwriters named in Schedule A (the "**Underwriters**") an aggregate of [●] shares of its common stock, par value $0.0001 per share (the "**Shares**"). The [●] Shares to be sold by the Company are called the "**Firm Shares**." In addition, the Company has granted to the Underwriters an option to purchase up to an additional [●] Shares as provided in Section 2. The additional [●] Shares to be sold by the Company pursuant to such option are collectively called the "**Optional Shares**." The Firm Shares and, if and to the extent such option is exercised, the Optional Shares are collectively called the "**Offered Shares**." Jefferies LLC ("**Jefferies**") and TD Securities (USA) LLC ("**TD Cowen**") have agreed to act as representatives of the several Underwriters (in such capacity, the "**Representatives**") in connection with the offering and sale of the Offered Shares. To the extent there are no additional underwriters listed on Schedule A, the term "Representatives" as used herein shall mean you, as Underwriters, and the term "Underwriters" shall mean either the singular or the plural, as the context requires.

The Company has prepared and filed with the Securities and Exchange Commission (the "**Commission**") a registration statement on Form S-1, File No. 333-278666 which contains a form of prospectus to be used in connection with the public offering and sale of the Offered Shares. Such registration statement, as amended, including the financial statements, exhibits and schedules thereto, in the form in which it became effective under the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder (collectively, the "**Securities Act**"), including any information deemed to be a part thereof at the time of effectiveness pursuant to Rule 430A under the Securities Act, is called the "**Registration Statement**." Any registration statement filed by the Company pursuant to Rule 462(b) under the Securities Act in connection with the offer and sale of the Offered Shares is called the "**Rule 462(b) Registration Statement**," and from and after the date and time of filing of any such Rule 462(b) Registration Statement the term "Registration Statement" shall include the Rule 462(b) Registration Statement. The prospectus, in the form first used by the Underwriters to confirm sales of the Offered Shares or in the form first made available to the Underwriters by the Company to meet requests of purchasers pursuant to Rule 173 under the Securities Act, is called the "**Prospectus**." The preliminary prospectus dated [●], 2024 describing the Offered Shares and the offering thereof is called the

"**Preliminary Prospectus**," and the Preliminary Prospectus and any other prospectus in preliminary form that describes the Offered Shares and the offering thereof and is used prior to the filing of the Prospectus is called a "**preliminary prospectus**." For the avoidance of doubt, any reference to Preliminary Prospectus or preliminary prospectus herein shall not include the Selling Stockholder Resale Prospectus (defined below). As used herein, "**Applicable Time**" is [●] p.m. (New York City time) on [●], 2024. As used herein, "**free writing prospectus**" has the meaning set forth in Rule 405 under the Securities Act, and "**Time of Sale Prospectus**" means the Preliminary Prospectus together with the free writing prospectuses, if any, identified in Schedule B hereto. As used herein, "**Selling Stockholder Resale Prospectus**" shall mean the prospectus included in the Registration Statement (all preliminary forms and the final form thereof) relating to the shares of common stock of the Company to be issued upon the conversion of $5.0 million in aggregate principal amount of indebtedness under a convertible unsecured promissory note entered into on April 16, 2024, by and between the Company and Micron Technology, Inc. As used herein, **"Road Show"** means a "road show" (as defined in Rule 433 under the Securities Act) relating to the offering of the Offered Shares contemplated hereby that is a "written communication" (as defined in Rule 405 under the Securities Act). As used herein, "**Section 5(d) Written Communication**" means each written communication (within the meaning of Rule 405 under the Securities Act) that is made in reliance on Section 5(d) of the Securities Act by the Company or any person authorized to act on behalf of the Company to one or more potential investors that are qualified institutional buyers ("**QIBs**") and/or institutions that are accredited investors ("**IAIs**"), as such terms are respectively defined in Rule 144A and Rule 501(a) under the Securities Act, to determine whether such investors might have an interest in the offering of the Offered Shares; "**Section 5(d) Oral Communication**" means each oral communication, if any, made in reliance on Section 5(d) of the Securities Act by the Company or any person authorized to act on behalf of the Company made to one or more QIBs and/or one or more IAIs to determine whether such investors might have an interest in the offering of the Offered Shares; "**Marketing Materials**" means any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the offering of the Offered Shares, including any roadshow or investor presentations made to investors by the Company (whether in person or electronically); and "**Permitted Section 5(d) Communication**" means the Section 5(d) Written Communication(s) and Marketing Materials listed on Schedule C attached hereto.

All references in this Agreement to (i) the Registration Statement, any preliminary prospectus (including the Preliminary Prospectus), or the Prospectus, or any amendments or supplements to any of the foregoing, or any free writing prospectus, shall include any copy thereof filed with the Commission pursuant to its Electronic Data Gathering, Analysis and Retrieval System ("**EDGAR**") and (ii) the Prospectus shall be deemed to include any "electronic Prospectus" provided for use in connection with the offering of the Offered Shares as contemplated by Section 3(o) of this Agreement.

In the event that the Company has only one subsidiary, then all references herein to "subsidiaries" of the Company shall be deemed to refer to such single subsidiary, mutatis mutandis.

The Company hereby confirms its agreements with the Underwriters as follows:

Section 1. Representations and Warranties of the Company. The Company hereby represents, warrants and covenants to each Underwriter, as of the date of this Agreement, as of the First Closing Date (as hereinafter defined) and as of each Option Closing Date (as hereinafter defined), if any, as follows:

(a) ***Compliance with Registration Requirements.*** The Registration Statement has become effective under the Securities Act. The Company has complied, to the Commission's satisfaction with all

requests of the Commission for additional or supplemental information, if any. No stop order suspending the effectiveness of the Registration Statement is in effect and no proceedings for such purpose have been instituted or are pending or, to the knowledge of the Company, are contemplated or threatened by the Commission.

(b) ***Disclosure.*** Each preliminary prospectus and the Prospectus when filed complied in all material respects with the Securities Act and, if filed by electronic transmission pursuant to EDGAR, was identical (except as may be permitted by Regulation S-T under the Securities Act) to the copy thereof delivered to the Underwriters for use in connection with the offer and sale of the Offered Shares. Each of the Registration Statement and any post-effective amendment thereto, at the time it became or becomes effective, complied and will comply in all material respects with the Securities Act and did not and will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. As of the Applicable Time, the Time of Sale Prospectus (including any preliminary prospectus wrapper) did not, and at the First Closing Date (as defined in Section 2) and at each applicable Option Closing Date (as defined in Section 2), will not, contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. The Prospectus (including any Prospectus wrapper), as of its date, did not, and at the First Closing Date and at each applicable Option Closing Date, as then amended or supplemented by the Company, will not, contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The representations and warranties set forth in the three immediately preceding sentences do not apply to statements in or omissions from the Registration Statement or any post-effective amendment thereto, or the Prospectus or the Time of Sale Prospectus, or any amendments or supplements thereto, made in reliance upon and in conformity with written information relating to any Underwriter furnished to the Company in writing by the Representatives expressly for use therein, it being understood and agreed that the only such information consists of the information described in Section 9(b) below. There are no contracts or other documents required to be described in the Time of Sale Prospectus or the Prospectus or to be filed as an exhibit to the Registration Statement which have not been described or filed as required.

(c) ***Free Writing Prospectuses; Road Show.*** As of the determination date referenced in Rule 164(h) under the Securities Act, the Company was not, is not or will not be (as applicable) an "ineligible issuer" in connection with the offering of the Offered Shares pursuant to Rules 164, 405 and 433 under the Securities Act. Each free writing prospectus that the Company is required to file pursuant to Rule 433(d) under the Securities Act has been, or will be, filed with the Commission in accordance with the requirements of the Securities Act. Each free writing prospectus that the Company has filed, or is required to file, pursuant to Rule 433(d) under the Securities Act or that was prepared by or on behalf of or used or referred to by the Company complies or will comply in all material respects with the requirements of Rule 433 under the Securities Act, including timely filing with the Commission, retention and legending, as applicable, and each such free writing prospectus, as of its issue date and at all subsequent times through the completion of the public offer and sale of the Offered Shares did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, the Prospectus or any preliminary prospectus unless such information has been superseded or modified as of such time. The representations and warranties set forth in the immediately preceding sentence do not apply to statements made in reliance upon and in conformity with written information relating to any Underwriter furnished to the Company in writing by the Representatives expressly for use therein, it being understood and agreed that the only such information consists of the information described in Section 9(b) below. Except for the free writing prospectuses, if any, identified in Schedule B, and electronic road shows, if any, furnished to the

Representatives before first use, the Company has not prepared, used or referred to, and will not, without the Representatives' prior written consent, which consent shall not be unreasonably withheld, conditioned or delayed, prepare, use or refer to, any free writing prospectus. Each Road Show, when considered together with the Time of Sale Prospectus, did not, as of the Applicable Time, contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(d) ***Distribution of Offering Material by the Company*****.** Prior to the later of (i) the expiration or termination of the option granted to the several Underwriters in Section 2, (ii) the completion of the Underwriters' distribution of the Offered Shares and (iii) the expiration of 25 days after the date of the Prospectus, the Company has not distributed and will not distribute any offering material in connection with the offering and sale of the Offered Shares other than the Registration Statement, the Time of Sale Prospectus, the Prospectus or any free writing prospectus reviewed and consented to by the Representatives, which consent shall not be unreasonably withheld, the free writing prospectuses, if any, identified on Schedule B hereto and any Permitted Section 5(d) Communications.

(e) ***The Underwriting Agreement*****.** This Agreement has been duly authorized, executed and delivered by the Company.

(f) ***Authorization of the Offered Shares*****.** The Offered Shares have been duly authorized for issuance and sale pursuant to this Agreement and, when issued and delivered by the Company against payment therefor pursuant to this Agreement, will be validly issued, fully paid and nonassessable, and the issuance and sale of the Offered Shares is not subject to any preemptive rights, rights of first refusal or other similar rights to subscribe for or purchase the Offered Shares.

(g) ***No Applicable Registration or Other Similar Rights*****.** There are no persons with registration or other similar rights to have any equity or debt securities registered for sale under the Registration Statement or included in the offering contemplated by this Agreement, except for such rights as have been duly waived.

(h) ***No Material Adverse Change*****.** Except as otherwise disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus, subsequent to the respective dates as of which information is given in the Registration Statement, the Time of Sale Prospectus and the Prospectus: (i) there has been no material adverse change, or any development that would reasonably be expected to result in a material adverse change, in (A) the condition, financial or otherwise, or in the earnings, business, properties, operations, operating results, assets, liabilities or prospects, whether or not arising from transactions in the ordinary course of business, of the Company and its subsidiaries, considered as one entity or (B) the ability of the Company to consummate the transactions contemplated by this Agreement or perform its obligations hereunder (any such change being referred to herein as a "**Material Adverse Change**"); (ii) the Company and its subsidiaries, considered as one entity, have not incurred any material liability or obligation, indirect, direct or contingent, including without limitation any losses or interference with their business from fire, explosion, flood, earthquakes, accident or other calamity, whether or not covered by insurance, or from any strike, labor dispute or court or governmental action, order or decree, that are material, individually or in the aggregate, to the Company and its subsidiaries, considered as one entity, and have not entered into any material transactions not in the ordinary course of business; and (iii) there has not been any material decrease in the capital stock or any material increase in any short-term or long-term indebtedness of the Company or its subsidiaries and there has been no dividend or distribution of any kind declared, paid or made by the Company or, except for dividends paid

to the Company or other subsidiaries, by any of the Company's subsidiaries on any class of capital stock, or any repurchase or redemption by the Company or any of its subsidiaries of any class of capital stock.

(i) ***Independent Accountants*****.** Moss Adams LLP, which has expressed its opinion with respect to the financial statements (which term as used in this Agreement includes the related notes thereto) filed with the Commission as a part of the Registration Statement, the Time of Sale Prospectus and the Prospectus, is (i) an independent registered public accounting firm as required by the Securities Act, and the rules of the Public Company Accounting Oversight Board ("**PCAOB**"), (ii) in compliance with the applicable requirements relating to the qualification of accountants under Rule 2-01 of Regulation S-X under the Securities Act and (iii) a registered public accounting firm as defined by the PCAOB whose registration has not been suspended or revoked and who has not requested such registration to be withdrawn.

(j) ***Financial Statements*****.** The financial statements filed with the Commission as a part of the Registration Statement, the Time of Sale Prospectus and the Prospectus present fairly, in all material respects, the consolidated financial position of the Company and its subsidiaries as of the dates indicated and the results of their operations, changes in stockholders' equity and cash flows for the periods specified. Such financial statements have been prepared in conformity with generally accepted accounting principles as applied in the United States applied on a consistent basis throughout the periods involved, except as may be expressly stated in the related notes thereto, and expect in the case of unaudited interim financial statements, which are subject to normal and recurring year-end adjustments and do not contain certain footnotes as permitted by the applicable rules of the Commission. No other financial statements or supporting schedules are required to be included in the Registration Statement, the Time of Sale Prospectus or the Prospectus. The financial data set forth in each of the Registration Statement, the Time of Sale Prospectus and the Prospectus under the captions "Prospectus Summary—Summary Consolidated Financial Data" and "Capitalization" fairly present, in all material respects, the information set forth therein on a basis consistent with that of the audited financial statements contained in the Registration Statement, the Time of Sale Prospectus and the Prospectus. All disclosures contained in the Registration Statement, any preliminary prospectus or the Prospectus and any free writing prospectus, that constitute non-GAAP financial measures (as defined by the rules and regulations under the Securities Act and the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder (collectively, the "**Exchange Act**")) comply with Regulation G under the Exchange Act and Item 10 of Regulation S-K under the Securities Act, as applicable. To the Company's knowledge, no person who has been suspended or barred from being associated with a registered public accounting firm, or who has failed to comply with any sanction pursuant to Rule 5300 promulgated by the PCAOB, has participated in or otherwise aided the preparation of, or audited, the financial statements, supporting schedules or other financial data filed with the Commission as a part of the Registration Statement, the Time of Sale Prospectus and the Prospectus.

(k) ***Company's Accounting System*****.** The Company and each of its subsidiaries make and keep books and records that are accurate in all material respects and maintain a system of internal accounting controls designed to, and which the Company believes is sufficient to, provide reasonable assurance that: (i) transactions are executed in accordance with management's general or specific authorization; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles as applied in the United States and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

(l) ***Disclosure Controls and Procedures; Deficiencies in or Changes to Internal Control Over Financial Reporting.*** Except as described in the Registration Statement, the Time of Sale Prospectus and the Prospectus, the Company has established and maintains disclosure controls and procedures (as defined in Rules 13a-15 and 15d-15 under the Exchange Act), which (i) are designed to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to the Company's principal executive officer and its principal financial officer by others within those entities, particularly during the periods in which the periodic reports required under the Exchange Act are being prepared (it being understood that neither subsection (k) nor this subsection (l) requires the Company to comply with Section 404 of the Sarbanes-Oxley Act of 2002 as of an earlier date than it would otherwise be required to so comply under applicable law); (ii) have been evaluated by management of the Company for effectiveness as of the end of the Company's most recent fiscal quarter; and (iii) are effective in all material respects to perform the functions for which they were established. Except as disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus, since the end of the Company's most recent audited fiscal year, there have been no significant deficiencies or material weakness in the Company's internal control over financial reporting (whether or not remediated) and no change in the Company's internal control over financial reporting that has materially adversely affected, or is reasonably likely to materially adversely affect, the Company's internal control over financial reporting. The Company is not aware of any change in its internal control over financial reporting that has occurred during its most recent fiscal quarter that has materially adversely affected, or is reasonably likely to materially adversely affect, the Company's internal control over financial reporting.

(m) ***Incorporation and Good Standing of the Company.*** The Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of the jurisdiction of its incorporation and has the corporate power and authority to own, lease and operate its properties and to conduct its business as described in the Registration Statement, the Time of Sale Prospectus and the Prospectus and to enter into and perform its obligations under this Agreement. The Company is duly qualified as a foreign corporation to transact business and is in good standing in the State of Delaware and each other jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except where the failure to be so qualified or in good standing or to have such power or authority would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Change.

(n) ***Subsidiaries.*** Each of the Company's "subsidiaries" (for purposes of this Agreement, as defined in Rule 405 under the Securities Act) has been duly incorporated or organized, as the case may be, and is validly existing as a corporation, partnership or limited liability company, as applicable, in good standing (where such concept exists) under the laws of the jurisdiction of its incorporation or organization and has the power and authority (corporate or other) to own, lease and operate its properties and to conduct its business as described in the Registration Statement, the Time of Sale Prospectus and the Prospectus except where the failure to be in good standing would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Change. Each of the Company's subsidiaries is duly qualified as a foreign corporation, partnership or limited liability company, as applicable, to transact business and is in good standing (where such concept exists) in each jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except where the failure to be so qualified or in good standing, as the case may be, or have such power or authority would not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change. All of the issued and outstanding capital stock or other equity or ownership interests of each of the Company's subsidiaries have been duly authorized and validly issued, are fully paid and nonassessable and are owned by the Company, directly or through subsidiaries, free and clear of any security interest, mortgage, pledge, lien, encumbrance or adverse claim. None of the outstanding

capital stock or equity interest in any subsidiary was issued in violation of preemptive or similar rights of any security holder of such subsidiary. The constitutive or organizational documents of each of the subsidiaries comply in all material respects with the requirements of applicable laws of its jurisdiction of incorporation or organization and are in full force and effect. The Company does not own or control, directly or indirectly, any corporation, association or other entity other than the subsidiaries listed in Exhibit 21.1 to the Registration Statement.

(o) ***Capitalization and Other Capital Stock Matters*****.** The authorized, issued and outstanding capital stock of the Company is as set forth in the Registration Statement, the Time of Sale Prospectus and the Prospectus under the caption "Capitalization" (other than for subsequent issuances, if any, pursuant to employee benefit plans, or upon the exercise of outstanding options or warrants, in each case described in the Registration Statement, the Time of Sale Prospectus and the Prospectus). The Shares (including the Offered Shares) conform in all material respects to the description thereof contained in the Time of Sale Prospectus. All of the issued and outstanding Shares have been duly authorized and validly issued, are fully paid and nonassessable and have been issued in compliance with all applicable federal and state securities laws. None of the outstanding Shares was issued in violation of any preemptive rights, rights of first refusal or other similar rights to subscribe for or purchase securities of the Company. There are no authorized or outstanding options, warrants, preemptive rights, rights of first refusal or other rights to purchase, or equity or debt securities convertible into or exchangeable or exercisable for, any capital stock of the Company or any of its subsidiaries other than those described in the Registration Statement, the Time of Sale Prospectus and the Prospectus. The descriptions of the Company's stock option, stock bonus and other stock plans or arrangements, and the options or other rights granted thereunder, set forth in the Registration Statement, the Time of Sale Prospectus and the Prospectus accurately and fairly presents in all material respects the information required to be shown with respect to such plans, arrangements, options and rights.

(p) ***Stock Exchange Listing*****.** The Offered Shares have been approved for listing on The Nasdaq Global Select Market ("**Nasdaq**"), subject only to official notice of issuance.

(q) ***Non-Contravention of Existing Instruments; No Further Authorizations or Approvals Required*****.** Neither the Company nor any of its subsidiaries is in violation of its charter or by-laws, partnership agreement or operating agreement or similar organizational documents, as applicable, or is in default (or, with the giving of notice or lapse of time, would be in default) ("**Default**") under any indenture, loan, credit agreement, note, lease, license agreement, contract, franchise or other instrument (including, without limitation, any pledge agreement, security agreement, mortgage or other instrument or agreement evidencing, guaranteeing, securing or relating to indebtedness) to which the Company or any of its subsidiaries is a party or by which it or any of them may be bound, or to which any of their respective properties or assets are subject (each, an "**Existing Instrument**"), except for such Defaults as would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Change. The Company's execution, delivery and performance of this Agreement, consummation of the transactions contemplated hereby and by the Registration Statement, the Time of Sale Prospectus and the Prospectus and the issuance and sale of the Offered Shares (including the use of proceeds from the sale of the Offered Shares as described in the Registration Statement, the Time of Sale Prospectus and the Prospectus under the caption "Use of Proceeds") (i) have been duly authorized by all necessary corporate action and will not result in any violation of the provisions of the charter or by-laws, partnership agreement or operating agreement or similar organizational documents, as applicable, of the Company or any subsidiary (ii) will not conflict with or constitute a breach of, or Default or a Debt Repayment Triggering Event (as defined below) under, or result in the creation or imposition of any lien, charge or encumbrance upon any property or assets of the Company or any of its subsidiaries pursuant to, or require

the consent of any other party to, any Existing Instrument, except as would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Change and (iii) will not result in any violation of any law, administrative regulation or administrative or court decree applicable to the Company or any of its subsidiaries, except for such violation as would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Change. No consent, approval, authorization or other order of, or registration or filing with, any court or other governmental or regulatory authority or agency, is required for the Company's execution, delivery and performance of this Agreement and consummation of the transactions contemplated hereby and by the Registration Statement, the Time of Sale Prospectus and the Prospectus, except such as have been obtained or made by the Company and are in full force and effect under the Securities Act and such as may be required under applicable state securities or blue sky laws or the Financial Industry Regulatory Authority, Inc. ("**FINRA**"). As used herein, a "**Debt Repayment Triggering Event**" means any event or condition which gives, or with the giving of notice or lapse of time would give, the holder of any note, debenture or other evidence of indebtedness (or any person acting on such holder's behalf) the right to require the repurchase, redemption or repayment of all or a portion of such indebtedness by the Company or any of its subsidiaries.

(r) ***Compliance with Laws.*** The Company and its subsidiaries have been and are in compliance with all applicable laws, rules and regulations, except where failure to be so in compliance would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Change.

(s) ***No Material Actions or Proceedings.*** Except as otherwise disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus, there is no action, suit, proceeding, inquiry or investigation brought by or before any legal or governmental entity now pending or, to the knowledge of the Company, threatened, against or affecting the Company or any of its subsidiaries, which would reasonably be expected, individually or in the aggregate, to result in a Material Adverse Change. No material labor dispute with the employees of the Company or any of its subsidiaries, or with the employees of any principal supplier, manufacturer, customer or contractor of the Company, exists or, to the knowledge of the Company, is threatened or imminent.

(t) ***Intellectual Property Rights.*** The Company and its subsidiaries own, or have obtained valid and enforceable licenses for, the inventions, patent applications, patents, trademarks, trade names, service names, copyrights, trade secrets and other intellectual property described in the Registration Statement, the Time of Sale Prospectus and the Prospectus as being owned or licensed by them or which are necessary for the conduct of their respective businesses as currently conducted or as currently proposed to be conducted (collectively, "**Intellectual Property**"), and, to the Company's knowledge, the conduct of their respective businesses currently does not and will not infringe upon, misappropriate or otherwise conflict in any material respect with any such rights of others. The Intellectual Property of the Company has not been adjudged by a court of competent jurisdiction to be invalid or unenforceable, in whole or in part, and the Company is unaware of any facts which would form a reasonable basis for any such adjudication. To the Company's knowledge: (i) there are no third parties who have rights to any Intellectual Property, except for customary reversionary rights of third-party licensors with respect to Intellectual Property that is disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus as licensed to the Company or one or more of its subsidiaries; and (ii) there is no material infringement by third parties of any Intellectual Property owned or exclusively licensed to the Company or any of its subsidiaries. There is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others: (A) challenging the Company's rights in or to any Intellectual Property, and the Company is unaware of any facts which would form a reasonable basis for any such action, suit,

proceeding or claim; (B) challenging the validity, enforceability or scope of any Intellectual Property, and the Company is unaware of any facts which would form a reasonable basis for any such action, suit, proceeding or claim; or (C) asserting that the Company or any of its subsidiaries infringes or otherwise violates, or would, upon the commercialization of any product or service described in the Registration Statement, the Time of Sale Prospectus or the Prospectus as under development, infringe or violate, any patent, trademark, trade name, service name, copyright, trade secret or other proprietary rights of others, and the Company is unaware of any facts which would form a reasonable basis for any such action, suit, proceeding or claim. The Company and its subsidiaries have no duty to account for profits to any joint owners of Intellectual Property. The Company and its subsidiaries have complied in all material respects with the terms of each agreement pursuant to which Intellectual Property has been licensed to the Company or any subsidiary, and all such agreements are in full force and effect. To the Company's knowledge, there are no material defects in any of the patents or patent applications included in the Intellectual Property. The Company and its subsidiaries have taken all reasonable steps to protect, maintain and safeguard their rights in Intellectual Property and prevent the unauthorized use and disclosure of trade secrets and confidential business information, including the execution of appropriate nondisclosure, confidentiality agreements and invention assignment agreements with their employees, and to the knowledge of the Company no employee of the Company is in or has been in violation of any term of any employment contract, patent disclosure agreement, invention assignment agreement, non-competition agreement, non-solicitation agreement, nondisclosure agreement, or any restrictive covenant to or with a former employer where the basis of such violation relates to such employee's employment with the Company. The duty of candor and good faith as required by the United States Patent and Trademark Office during the prosecution of the United States patents and patent applications included in the Intellectual Property have been complied with; and in all foreign offices having similar requirements, all such requirements have been complied with. None of the Company owned Intellectual Property or technology (including information technology and outsourced arrangements) employed by the Company or its subsidiaries has been obtained or is being used by the Company or its subsidiary in violation of any material contractual obligation binding on the Company or its subsidiaries or, to the knowledge of the Company, any of their respective officers, directors or employees or otherwise in violation of the rights of any persons. The systems, products, and methods described in the Registration Statement, the Time of Sale Prospectus and the Prospectus as under development by the Company or any subsidiary fall within the scope of the claims of one or more patents or patent applications owned by, or exclusively licensed to, the Company or any subsidiary, or are otherwise described in such patents or patent applications in a manner that would support claim(s). The Company and its subsidiaries have not integrated, embedded, incorporated, distributed or otherwise used any "open source" software in any manner that requires the Company or any of its subsidiaries to: (i) disclose or make any of the proprietary software of the Company or any of its subsidiaries available in source code form; (ii) make any of the proprietary software of the Company or any of its subsidiaries available for the purpose of creating derivative works; or (iii) distribute any of the products or services of the Company or its subsidiaries free of charge. The Company and each of its subsidiaries is in compliance in all material respects with the terms and conditions of all open source software licenses to which they are bound.

(u) ***All Necessary Permits, etc.*** The Company and its subsidiaries possess such valid and current certificates, authorizations or permits required by state, federal or foreign regulatory agencies or bodies to conduct their respective businesses as currently conducted and as described in the Registration Statement, the Time of Sale Prospectus or the Prospectus ("**Permits**"), except where the failure to possess the same or so qualify would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Change. Neither the Company nor any of its subsidiaries is in violation of, or in default under, any of the Permits or has received any notice of proceedings relating to the revocation or modification of, or non-compliance with, any such Permit, and to the Company's knowledge, no event

has occurred, which allows, or after notice or lapse of time would allow, revocation or termination thereof or would result in any other material impairment of the rights of the holder of any such Permit, except, in each case, where such revocation, modification or termination would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Change.

(v) ***Title to Properties.*** The Company and its subsidiaries have good and marketable title to all of the real and personal property and other assets reflected as owned in the financial statements referred to in Section 1(k) above (or elsewhere in the Registration Statement, the Time of Sale Prospectus or the Prospectus), in each case free and clear of any security interests, mortgages, liens, encumbrances, equities, adverse claims and other defects, except as would not reasonably be expected, individually or in the aggregate, to materially affect the value of such property or materially interfere with the use thereof. The real property, improvements, equipment and personal property held under lease by the Company or any of its subsidiaries are held under valid and enforceable leases, with such exceptions as are not material and do not materially interfere with the use made or proposed to be made of such real property, improvements, equipment or personal property by the Company or such subsidiary.

(w) ***Tax Law Compliance.*** The Company and its subsidiaries have timely filed all necessary U.S. federal, state, local and foreign tax returns or have properly requested extensions thereof and have paid all taxes required to be paid by any of them and, if due and payable, any related or similar assessment, fine or penalty levied against any of them except for any such tax, assessment, fine or penalty that is currently being contested in good faith by appropriate proceedings and except to the extent that failure to file or pay would not reasonably be expected to result in a Material Adverse Change. The Company has made adequate charges, accruals and reserves in the applicable financial statements referred to in Section 1(k) above in respect of all U.S. federal, state, local and foreign taxes, and any related assessment, fine or penalty for all periods as to which the liability of the Company or any of its subsidiaries has not been finally determined. No audit or other examination of or with respect to any tax return or taxes of the Company or any of its subsidiaries is presently in progress, nor has the Company or any of its subsidiaries been notified in writing of any request for an audit or other examination that has not been finally resolved. There is no unresolved tax deficiency outstanding, assessed or proposed in writing against the Company or any of its subsidiaries. Neither the Company nor any of its subsidiaries has received a written claim from any governmental body that the Company or any of its subsidiaries is or may be required to file a particular type of tax return or pay a particular type of tax in a jurisdiction in which it does not file such a tax return or pay such a tax. There are no outstanding agreements or waivers extending the statutory period of limitation applicable to any federal, state, local or foreign tax return of the Company or any of its subsidiaries for any period.

(x) ***Insurance.*** Each of the Company and its subsidiaries are insured by recognized, financially sound and reputable institutions with policies in such amounts and with such deductibles and covering such risks as are generally deemed adequate and customary, in the reasonable judgment of the Company's Board of Directors and management, for their businesses including, but not limited to, policies covering real and personal property owned or leased by the Company and its subsidiaries against theft, damage, destruction, acts of vandalism and earthquakes and policies covering the Company and its subsidiaries for product liability claims. The Company has no reason to believe that it or any of its subsidiaries will not be able (i) to renew its existing insurance coverage as and when such policies expire or (ii) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as now conducted and at a cost that would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Change. Neither the Company nor any of its subsidiaries has been denied any insurance coverage which it has sought or for which it has applied.

(y) ***Compliance with Environmental Laws.*** Except as would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Change: (i) neither the Company nor any of its subsidiaries is in violation of any federal, state, local or foreign statute, law, rule, regulation, ordinance, code, policy or rule of common law or any judicial or administrative interpretation thereof, including any judicial or administrative order, consent, decree or judgment, relating to pollution or protection of human health, the environment (including, without limitation, ambient air, surface water, groundwater, land surface or subsurface strata) or wildlife, including, without limitation, laws and regulations relating to the release or threatened release of chemicals, pollutants, contaminants, wastes, toxic substances, hazardous substances, petroleum or petroleum products (collectively, "**Hazardous Materials**") or to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials (collectively, "**Environmental Laws**"); (ii) the Company and its subsidiaries have all permits, authorizations and approvals required under any applicable Environmental Laws and are each in compliance with their requirements; (iii) there are no pending or, to the knowledge of the Company, threatened administrative, regulatory or judicial actions, suits, demands, demand letters, claims, liens, notices of noncompliance or violation, investigation or proceedings relating to any Environmental Law against the Company or any of its subsidiaries; and (iv) to the Company's knowledge, there are no events or circumstances that might reasonably be expected to form the basis of an order for clean-up or remediation, or an action, suit or proceeding by any private party or governmental body or agency, against or affecting the Company or any of its subsidiaries relating to Hazardous Materials or any Environmental Laws.

(z) ***ERISA Compliance.*** The Company and its subsidiaries and any "employee benefit plan" (as defined under the Employee Retirement Income Security Act of 1974, as amended, and the regulations and published interpretations thereunder (collectively, "**ERISA**")) established or maintained by the Company, its subsidiaries or, to the Company's knowledge, their "ERISA Affiliates" (as defined below) are in compliance in all material respects with ERISA. "**ERISA Affiliate**" means, with respect to the Company or any of its subsidiaries, any member of any group of organizations described in Sections 414(b), (c), (m) or (o) of the Internal Revenue Code of 1986, as amended, and the regulations and published interpretations thereunder (the "**Code**") of which the Company or such subsidiary is a member. No "reportable event" (as defined under ERISA) has occurred or is reasonably expected to occur with respect to any "employee benefit plan" established or maintained by the Company, its subsidiaries or any of their ERISA Affiliates. No "employee benefit plan" established or maintained by the Company, its subsidiaries or any of their ERISA Affiliates, if such "employee benefit plan" were terminated, would have any "amount of unfunded benefit liabilities" (as defined under ERISA). Neither the Company, its subsidiaries nor any of their ERISA Affiliates has incurred or reasonably expects to incur any liability under (i) Title IV of ERISA with respect to termination of, or withdrawal from, any "employee benefit plan" or (ii) Sections 412, 4971, 4975 or 4980B of the Code. Each employee benefit plan established or maintained by the Company, its subsidiaries or any of their ERISA Affiliates that is intended to be qualified under Section 401(a) of the Code is so qualified and, to the Company's knowledge, nothing has occurred, whether by action or failure to act, which would reasonably be expected to cause the loss of such qualification.

(aa) ***Company Not an "Investment Company."*** The Company is not, and will not be, either after receipt of payment for the Offered Shares or after the application of the proceeds therefrom as described under "Use of Proceeds" in the Registration Statement, the Time of Sale Prospectus or the Prospectus, required to register as an "investment company" under the Investment Company Act of 1940, as amended (the **"Investment Company Act")**.

(bb) ***No Price Stabilization or Manipulation; Compliance with Regulation M*****.** Neither the Company nor any of its subsidiaries has taken, directly or indirectly, without giving effect to activities by the Underwriters, any action designed to or that would reasonably be expected to cause or result in stabilization or manipulation of the price of the Shares or of any "reference security" (as defined in Rule 100 of Regulation M under the Exchange Act (**"Regulation M"**)) with respect to the Shares, whether to facilitate the sale or resale of the Offered Shares or otherwise, and has taken no action which would directly or indirectly violate Regulation M.

(cc) ***Related-Party Transactions*****.** There are no business relationships or related-party transactions involving the Company or any of its subsidiaries or any other person required to be described in the Registration Statement, the Time of Sale Prospectus or the Prospectus that have not been described as required.

(dd) ***FINRA Matters*****.** All of the information provided to the Underwriters or to counsel for the Underwriters by the Company, its counsel, its officers and directors and, to the Company's knowledge, the holders of any securities (debt or equity) or options to acquire any securities of the Company in connection with the offering of the Offered Shares is true, complete and correct and any letters, filings or other supplemental information provided to FINRA pursuant to FINRA Rules or NASD Conduct Rules is true, complete and correct in all material respects.

(ee) ***Parties to Lock-Up Agreements*****.** The Company has furnished to the Underwriters a letter agreement in the form attached hereto as Exhibit A (the "**Lock-up Agreement**") from each director and officer of the Company and from substantially all of the securityholders of the Company. If any additional persons shall become directors or officers (as defined in Rule 16a-1(f) under the Exchange Act) of the Company prior to the end of the Company Lock-up Period (as defined below), the Company shall cause each such person, prior to or contemporaneously with their appointment or election as a director or officer of the Company, to execute and deliver to the Representatives a Lock-up Agreement.

(ff) ***Statistical and Market-Related Data*****.** All statistical, demographic and market-related data included in the Registration Statement, the Time of Sale Prospectus or the Prospectus are based on or derived from sources that the Company believes, after reasonable inquiry, to be reliable and accurate in all material respects. To the extent required, the Company has obtained the written consent to the use of such data from such sources.

(gg) ***Sarbanes-Oxley Act.*** There is, and has been, no failure on the part of the Company or any of the Company's directors or officers, in their capacities as such, to comply with any applicable provision of the Sarbanes-Oxley Act of 2002, as amended and the rules and regulations promulgated in connection therewith, including Section 402 related to loans and Sections 302 and 906 related to certifications.

(hh) ***No Unlawful Contributions or Other Payments*****.** Neither the Company nor any of its subsidiaries nor, to the Company's knowledge, any employee or agent of the Company or any subsidiary, has made any contribution or other payment to any official of, or candidate for, any federal, state or foreign office in violation of any law or of the character required to be disclosed in the Registration Statement, the Time of Sale Prospectus or the Prospectus.

(ii) ***Anti-Corruption and Anti-Bribery Laws*****.** Neither the Company nor any of its subsidiaries nor, any director, officer, or, to the knowledge of the Company, any employee, agent, affiliate or other person acting on behalf of the Company or any of its subsidiaries has, in the course of its actions

for, or on behalf of, the Company or any of its subsidiaries (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expenses relating to political activity; (ii) made or taken any act in furtherance of an offer, promise, or authorization of any direct or indirect unlawful payment or benefit to any foreign or domestic government official or employee, including of any government-owned or controlled entity or public international organization, or any political party, party official, or candidate for political office; (iii) violated or is in violation of any provision of the U.S. Foreign Corrupt Practices Act of 1977, as amended (the "**FCPA**"), the UK Bribery Act 2010, or any other applicable anti-bribery or anti-corruption law; or (iv) made, offered, authorized, requested, or taken an act in furtherance of any unlawful bribe, rebate, payoff, influence payment, kickback or other unlawful payment or benefit. The Company and its subsidiaries and, to the knowledge of the Company, the Company's affiliates have conducted their respective businesses in compliance with the FCPA and have instituted and maintain policies and procedures designed to ensure, and which are reasonably expected to continue to ensure, continued compliance therewith.

(jj) ***Money Laundering Laws.*** The operations of the Company and its subsidiaries are, and have been conducted at all times, in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all applicable jurisdictions, the rules and regulations thereunder and any related or similar applicable rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the "**Money Laundering Laws**") and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its subsidiaries with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

(kk) ***Sanctions.*** Neither the Company nor any of its subsidiaries, nor any director, officer, employee, or, to the knowledge of the Company after due inquiry, any agent, affiliate or other person acting on behalf of the Company or any of its subsidiaries is currently the subject or the target of any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Department of the Treasury ("**OFAC**") or the U.S. Department of State, the United Nations Security Council, the European Union, His Majesty's Treasury of the United Kingdom, or other relevant sanctions authority (collectively, "**Sanctions**"); nor is the Company or any of its subsidiaries located, organized or resident in a country or territory that is the subject or the target of comprehensive Sanctions, including, without limitation, Cuba, Iran, North Korea, Syria, and the Crimea, Donetsk People's Republic, and Luhansk People's Republic regions of Ukraine (collectively, "**Sanctioned Countries**"); and the Company will not directly or indirectly use the proceeds of this offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, or any joint venture partner or other person or entity, for the purpose of financing the activities of or business with any person, or in any country or territory, that at the time of such financing, is the subject or the target of Sanctions or in any other manner that will result in a violation by any person (including any person participating in the transaction whether as underwriter, advisor, investor or otherwise) of applicable Sanctions. Except as otherwise disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus, to the knowledge of the Company, for the past five years, the Company and its subsidiaries have not engaged in and are not now engaged in any dealings or transactions with any person that at the time of the dealing or transaction is or was the subject or the target of Sanctions or with any Sanctioned Country. The Company has not received a pre-penalty notice or other governmental notice that penalties will be assessed for a violation of Sanctions.

(ll) ***Trade Laws.*** Except as otherwise disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus, the operations of the Company and its subsidiaries are, and have been conducted at all times, in compliance with the U.S. Export Administration Regulations and other

applicable import and export laws and regulations (collectively, "**Trade Laws**"). The Company has not received a pre-penalty notice or other governmental notice that penalties will be assessed for a violation of Trade Laws.

(mm) ***Brokers.*** Except pursuant to this Agreement, there is no broker, finder or other party that is entitled to receive from the Company any brokerage or finder's fee or other fee or commission as a result of any transactions contemplated by this Agreement.

(nn) ***Forward-Looking Statements.*** Each financial or operational projection or other "forward-looking statement" (as defined by Section 27A of the Securities Act or Section 21E of the Exchange Act) contained in the Registration Statement, the Time of Sale Prospectus or the Prospectus (i) was so included by the Company in good faith and with reasonable basis after due consideration by the Company of the underlying assumptions, estimates and other applicable facts and circumstances and (ii) is accompanied by meaningful cautionary statements identifying those factors that could cause actual results to differ materially from those in such forward-looking statement. No such statement was made with the knowledge of an executive officer or director of the Company that it was false or misleading.

(oo) ***No Outstanding Loans or Other Extensions of Credit***. The Company does not have any outstanding extension of credit, in the form of a personal loan, to or for any director or executive officer (or equivalent thereof) of the Company except for such extensions of credit as are expressly permitted by Section 13(k) of the Exchange Act.

(pp) ***Cybersecurity***. The Company and its subsidiaries' information technology assets and equipment, computers, systems, networks, hardware, software, websites, applications, and databases (collectively, "**IT Systems**") are adequate for, and operate and perform in all material respects as required in connection with the operation of the business of the Company and its subsidiaries as currently conducted, free and clear of all material bugs, errors, defects, Trojan horses, time bombs, malware and other corruptants. The Company and its subsidiaries have implemented and maintained reasonable physical, technical and administrative controls, policies, procedures, and safeguards to maintain and protect their material confidential information and the integrity, continuous operation, redundancy and security of all IT Systems and data, including all confidential data and Personal Data (collectively "**Sensitive Data**") used in connection with their businesses. "**Personal Data**" means (i) a natural person's name, street address, telephone number, e-mail address, photograph, social security number or tax identification number, driver's license number, passport number, credit card number, bank information, or customer or account number; (ii) any information which would qualify as "personally identifying information" under the Federal Trade Commission Act, as amended; (iii) "personal data" as defined by the European Union General Data Protection Regulation ("**EU GDPR**") (EU 2016/679) and the EU GDPR as it forms part of the law of the United Kingdom by virtue of section 3 of the European Union (Withdrawal) Act 2018 ("**UK GDPR**"); (iv) any information which would qualify as "protected health information" under the Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act (collectively, "**HIPAA**"); (v) any "personal information" as defined by the California Consumer Privacy Act ("**CCPA**"); and (vi) any other piece of information that allows the identification of such natural person, or his or her family, or permits the collection or analysis of any data related to an identified person's health or sexual orientation. There have been no material breaches, violations, outages or unauthorized uses of or accesses to the Company's IT Systems requiring the Company to notify any person, governmental entity, or other third party. The Company and its subsidiaries are presently, and for the past five years have been, in material compliance with all applicable laws or statutes and all judgments, orders, rules and regulations of any court or arbitrator or governmental or regulatory authority, internal policies and contractual obligations

relating to the privacy and security of IT Systems and Sensitive Data and to the protection of such IT Systems and Sensitive Data from unauthorized use, access, misappropriation or modification.

(qq) ***Compliance with Data Privacy Laws***. The Company and its subsidiaries are, and at all prior times were, in material compliance with all applicable state, federal, and foreign data privacy and security laws and regulations, including without limitation HIPAA, CCPA, and GDPR (collectively, the "**Privacy Laws**"). To ensure compliance with the Privacy Laws, the Company and its subsidiaries have in place, comply with, and take reasonable and appropriate steps designed to ensure compliance in all material respects with their policies and procedures relating to data privacy and security and the collection, storage, use, disclosure, handling, and analysis of Sensitive Data (the "**Policies**"). The Company and its subsidiaries have at all times made all disclosures to users or customers required by applicable laws and regulatory rules or requirements, and none of such disclosures made or contained in any Policy have, to the knowledge of the Company, been inaccurate, misleading, deceptive or in violation of any applicable laws, Privacy Laws, Policies, and regulatory rules or requirements in any material respect. Neither the Company nor any subsidiary: (i) has received notice of any actual or potential liability under or relating to, or actual or potential violation of, any of the Privacy Laws, and has no knowledge of any event or condition that would reasonably be expected to result in any such notice; (ii) is currently conducting or paying for, in whole or in part, any investigation, remediation, or other corrective action pursuant to any Privacy Law; or (iii) is a party to any order, decree, or agreement that imposes any obligation or liability under any Privacy Law.

(rr) ***Emerging Growth Company Status***. From the time of initial confidential submission of the Registration Statement to the Commission (or, if earlier, the first date on which the Company engaged in any Section 5(d) Written Communication or any Section 5(d) Oral Communication) through the date hereof, the Company has been and is an "emerging growth company," as defined in Section 2(a) of the Securities Act (an "**Emerging Growth Company**").

(ss) ***Communications***. The Company (i) has not alone engaged in communications with potential investors in reliance on Section 5(d) of the Securities Act other than Permitted Section 5(d) Communications with the consent of the Representatives with entities that are QIBs or IAIs and (ii) has not authorized anyone other than the Representatives to engage in such communications; the Company reconfirms that the Representatives have been authorized to act on its behalf in undertaking Marketing Materials, Section 5(d) Oral Communications and Section 5(d) Written Communications; as of the Applicable Time, each Permitted Section 5(d) Communication, when considered together with the Time of Sale Prospectus, did not, as of the Applicable Time, include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; and each Permitted Section 5(d) Communication, if any, does not, as of the date hereof, conflict with the information contained in the Registration Statement, the Preliminary Prospectus and the Prospectus; and the Company has filed publicly on EDGAR at least 15 calendar days prior to any "road show" (as defined in Rule 433 under the Act), any confidentially submitted registration statement and registration statement amendments relating to the offer and sale of the Offered Shares.

(tt) ***No Rights to Purchase Preferred Stock.*** The issuance and sale of the Shares as contemplated hereby will not cause any holder of any shares of capital stock, securities convertible into or exchangeable or exercisable for capital stock or options, warrants or other rights to purchase capital stock or any other securities of the Company to have any right to acquire any shares of preferred stock of the Company.

(uu) ***No Contract Terminations.*** Neither the Company nor any of its subsidiaries has sent or received any communication regarding termination of, or intent not to renew, any of the contracts or agreements referred to or described in any preliminary prospectus, the Prospectus or any free writing prospectus, or referred to or described in, or filed as an exhibit to, the Registration Statement, and no such termination or non-renewal has been threatened by the Company or any of its subsidiaries or, to the Company's knowledge, any other party to any such contract or agreement, which threat of termination or non-renewal has not been rescinded as of the date hereof.

(vv) ***Dividend Restrictions.*** No subsidiary of the Company is prohibited or restricted, directly or indirectly, from paying dividends to the Company, or from making any other distribution with respect to such subsidiary's equity securities or from repaying to the Company or any other subsidiary of the Company any amounts that may from time to time become due under any loans or advances to such subsidiary from the Company or from transferring any property or assets to the Company or to any other subsidiary.

(ww) ***No Ratings***. There are (and prior to the Closing Date, will be) no debt securities, convertible securities or preferred stock issued or guaranteed by the Company or any of its subsidiaries that are rated by a "nationally recognized statistical rating organization", as such term is defined in Section 3(a)(62) under the Exchange Act.

Any certificate signed by any officer of the Company or any of its subsidiaries and delivered to any Underwriter or to counsel for the Underwriters in connection with the offering, or the purchase and sale, of the Offered Shares shall be deemed a representation and warranty by the Company (and not by such officer in his or her personal capacity) to each Underwriter as to the matters covered thereby.

The Company has a reasonable basis for making each of the representations set forth in this Section 1. The Company acknowledges that the Underwriters and, for purposes of the opinions to be delivered pursuant to Section 6 hereof, counsel to the Company and counsel to the Underwriters, will rely upon the accuracy and truthfulness of the foregoing representations and hereby consents to such reliance.

Section 2. Purchase, Sale and Delivery of the Offered Shares.

(a) ***The Firm Shares.*** Upon the terms herein set forth, the Company agrees to issue and sell to the several Underwriters an aggregate of [●] Firm Shares. On the basis of the representations, warranties and agreements herein contained, and upon the terms but subject to the conditions herein set forth, the Underwriters agree, severally and not jointly, to purchase from the Company the respective number of Firm Shares set forth opposite their names on Schedule A. The purchase price per Firm Share to be paid by the several Underwriters to the Company shall be $[●] per share.

(b) ***The First Closing Date.*** Delivery of the Firm Shares to be purchased by the Underwriters and payment therefor shall be made at the offices of Cooley LLP, 3175 Hanover Street, Palo Alto, California 94304 (or such other place as may be agreed to by the Company and the Representatives) at 9:00 a.m. New York City time, on [●], 2024, or such other time and date not later than 1:30 p.m. New York City time, on [●], 2024 as the Representatives shall designate by notice to the Company (the time and date of such closing are called the "**First Closing Date**"). The Company hereby acknowledges that circumstances under which the Representatives may provide notice to postpone the First Closing Date as originally scheduled include, but are not limited to, any determination by the Company or the Representatives to recirculate to the public copies of an amended or supplemented Prospectus or a delay as contemplated by the provisions of Section 11.

(c) ***The Optional Shares; Option Closing Date.*** In addition, on the basis of the representations, warranties and agreements herein contained, and upon the terms but subject to the conditions herein set forth, the Company hereby grants an option to the several Underwriters to purchase, severally and not jointly, up to an aggregate of [●] Optional Shares from the Company at the purchase price per share to be paid by the Underwriters for the Firm Shares. The option granted hereunder may be exercised at any time and from time to time in whole or in part upon notice by the Representatives to the Company, which notice may be given at any time within 30 days from the date of this Agreement. Such notice shall set forth (i) the aggregate number of Optional Shares as to which the Underwriters are exercising the option and (ii) the time, date and place at which the Optional Shares will be delivered (which time and date may be simultaneous with, but not earlier than, the First Closing Date; and in the event that such time and date are simultaneous with the First Closing Date, the term "**First Closing Date**" shall refer to the time and date of delivery of the Firm Shares and such Optional Shares). Any such time and date of delivery, if subsequent to the First Closing Date, is called an "**Option Closing Date**," and shall be determined by the Representatives and shall not be earlier than two or later than five full business days after delivery of such notice of exercise. If any Optional Shares are to be purchased, (a) each Underwriter agrees, severally and not jointly, to purchase the number of Optional Shares (subject to such adjustments to eliminate fractional shares as the Representatives may determine) that bears the same proportion to the total number of Optional Shares to be purchased as the number of Firm Shares set forth on Schedule A opposite the name of such Underwriter bears to the total number of Firm Shares and (b) the Company agrees to sell the number of Optional Shares (subject to such adjustments to eliminate fractional shares as the Representatives may determine). The Representatives may cancel the option at any time prior to its expiration by giving written notice of such cancellation to the Company.

(d) ***Public Offering of the Offered Shares.*** The Representatives hereby advise the Company that the Underwriters intend to offer for sale to the public, initially on the terms set forth in the Registration Statement, the Time of Sale Prospectus and the Prospectus, their respective portions of the Offered Shares as soon after this Agreement has been executed and the Registration Statement has been declared effective as the Representatives, in their sole judgment, have determined is advisable and practicable.

(e) ***Payment for the Offered Shares.*** (i) Payment for the Offered Shares to be sold by the Company shall be made at the First Closing Date (and, if applicable, at each Option Closing Date) by wire transfer of immediately available funds to the order of the Company.

(ii) It is understood that the Representatives have been authorized, for their own account and the accounts of the several Underwriters, to accept delivery of and receipt for, and make payment of the purchase price for, the Firm Shares and any Optional Shares the Underwriters have agreed to purchase. Each of Jefferies and TD Cowen, individually and not as the Representatives of the Underwriters, may (but shall not be obligated to) make payment for any Offered Shares to be purchased by any Underwriter whose funds shall not have been received by the Representatives by the First Closing Date or the applicable Option Closing Date, as the case may be, for the account of such Underwriter, but any such payment shall not relieve such Underwriter from any of its obligations under this Agreement.

(f) ***Delivery of the Offered Shares.*** The Company shall deliver, or cause to be delivered to the Representatives for the accounts of the several Underwriters the Firm Shares at the First Closing Date, against release of a wire transfer of immediately available funds for the amount of the purchase price therefor. The Company shall also deliver, or cause to be delivered to the Representatives for the accounts of the several Underwriters, the Optional Shares the Underwriters have agreed to purchase from them at the First Closing Date or the applicable Option Closing Date, as the case may be, against the release of a

wire transfer of immediately available funds for the amount of the purchase price therefor. If Jefferies so elects, delivery of the Offered Shares may be made by credit to the accounts designated by Jefferies through The Depository Trust Company's full fast transfer or DWAC programs. Time shall be of the essence, and delivery at the time and place specified in this Agreement is a further condition to the obligations of the Underwriters.

Section 3. Additional Covenants of the Company. The Company further covenants and agrees with each Underwriter as follows:

(a) ***Delivery of Registration Statement, Time of Sale Prospectus and Prospectus.*** The Company shall furnish to you in New York City, without charge, prior to 10:00 a.m. New York City time on the business day next succeeding the date of this Agreement and during the period when a prospectus relating to the Offered Shares is required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule) in connection with sales of the Offered Shares, as many copies of the Time of Sale Prospectus, the Prospectus and any supplements and amendments thereto or to the Registration Statement as you may reasonably request.

(b) ***Representatives' Review of Proposed Amendments and Supplements.*** During the period when a prospectus relating to the Offered Shares is required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule), the Company (i) will furnish to the Representatives for review, a reasonable period of time prior to the proposed time of filing of any proposed amendment or supplement to the Registration Statement, a copy of each such amendment or supplement and (ii) will not amend or supplement the Registration Statement without the Representatives' prior written consent, which consent shall not be unreasonably withheld, conditioned or delayed. Prior to amending or supplementing any preliminary prospectus, the Time of Sale Prospectus or the Prospectus, the Company shall furnish to the Representatives for review, a reasonable amount of time prior to the time of filing or use of the proposed amendment or supplement, a copy of each such proposed amendment or supplement. The Company shall not file or use any such proposed amendment or supplement without the Representatives' prior written consent, which consent shall not be unreasonably withheld, conditioned or delayed. The Company shall file with the Commission within the applicable period specified in Rule 424(b) under the Securities Act any prospectus required to be filed pursuant to such Rule.

(c) ***Free Writing Prospectuses.*** The Company shall furnish to the Representatives for review, a reasonable amount of time prior to the proposed time of filing or use thereof, a copy of each proposed free writing prospectus or any amendment or supplement thereto prepared by or on behalf of, used by, or referred to by the Company, and the Company shall not file, use or refer to any proposed free writing prospectus or any amendment or supplement thereto without the Representatives' prior written consent, which consent shall not be unreasonably withheld, conditioned or delayed. The Company shall furnish to each Underwriter, without charge, as many copies of any free writing prospectus prepared by or on behalf of, used by or referred to by the Company as such Underwriter may reasonably request. If at any time when a prospectus is required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule) in connection with sales of the Offered Shares (but in any event if at any time through and including the First Closing Date) there occurred or occurs an event or development as a result of which any free writing prospectus prepared by or on behalf of, used by, or referred to by the Company conflicted or would conflict with the information contained in the Registration Statement or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances prevailing at such time, not misleading, the Company shall promptly amend

or supplement such free writing prospectus to eliminate or correct such conflict or so that the statements in such free writing prospectus as so amended or supplemented will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances prevailing at such time, not misleading, as the case may be; *provided, however*, that prior to amending or supplementing any such free writing prospectus, the Company shall furnish to the Representatives for review, a reasonable amount of time prior to the proposed time of filing or use thereof, a copy of such proposed amended or supplemented free writing prospectus, and the Company shall not file, use or refer to any such amended or supplemented free writing prospectus without the Representatives' prior written consent, which consent shall not be unreasonably withheld, conditioned or delayed.

(d) ***Filing of Underwriter Free Writing Prospectuses.*** The Company shall not take any action that would result in an Underwriter or the Company being required to file with the Commission pursuant to Rule 433(d) under the Securities Act a free writing prospectus prepared by or on behalf of such Underwriter that such Underwriter otherwise would not have been required to file thereunder.

(e) ***Amendments and Supplements to Time of Sale Prospectus.*** If the Time of Sale Prospectus is being used to solicit offers to buy the Offered Shares at a time when the Prospectus is not yet available to prospective purchasers, and any event shall occur or condition exist as a result of which it is necessary to amend or supplement the Time of Sale Prospectus so that the Time of Sale Prospectus does not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances when delivered to a prospective purchaser, not misleading, or if any event shall occur or condition exist as a result of which the Time of Sale Prospectus conflicts with the information contained in the Registration Statement, or if, in the reasonable opinion of counsel for the Underwriters, it is necessary to amend or supplement the Time of Sale Prospectus to comply with applicable law, the Company shall (subject to Section 3(b) and Section 3(c) hereof) promptly prepare, file with the Commission and furnish, at its own expense, to the Underwriters and to any dealer upon request, either amendments or supplements to the Time of Sale Prospectus so that the statements in the Time of Sale Prospectus as so amended or supplemented will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances when delivered to a prospective purchaser, not misleading or so that the Time of Sale Prospectus, as amended or supplemented, will no longer conflict with the information contained in the Registration Statement, or so that the Time of Sale Prospectus, as amended or supplemented, will comply with applicable law.

(f) ***Certain Notifications and Required Actions*****.** After the date of this Agreement, the Company shall promptly advise the Representatives in writing (which may be by electronic mail) of: (i) the receipt of any comments of, or requests for additional or supplemental information from, the Commission relating to the Registration Statement, the Time of Sale Prospectus or the Prospectus; (ii) the time and date of any filing of any post-effective amendment to the Registration Statement or any amendment or supplement to any preliminary prospectus, the Time of Sale Prospectus, any free writing prospectus or the Prospectus; (iii) the time and date that any post-effective amendment to the Registration Statement becomes effective; and (iv) the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto or any amendment or supplement to any preliminary prospectus, the Time of Sale Prospectus or the Prospectus or of any order preventing or suspending the use of any preliminary prospectus, the Time of Sale Prospectus, any free writing prospectus or the Prospectus, or of any proceedings to remove, suspend or terminate from listing or quotation the Shares from any securities exchange upon which they are listed for trading or included or designated for quotation, or of the threatening or initiation of any proceedings for any of such purposes.

If the Commission shall enter any such stop order at any time, the Company will use its reasonable best efforts to obtain the lifting of such order as soon as practicable. Additionally, the Company agrees that it shall comply with all applicable provisions of Rule 424(b), Rule 433 and Rule 430A under the Securities Act and will use its reasonable efforts to confirm that any filings made by the Company under Rule 424(b) or Rule 433 were received in a timely manner by the Commission.

(g) ***Amendments and Supplements to the Prospectus and Other Securities Act Matters.*** If any event shall occur or condition exist as a result of which it is necessary to amend or supplement the Prospectus so that the Prospectus does not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances when the Prospectus is delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule) to a purchaser, not misleading, or if in the opinion of the Representatives or counsel for the Underwriters it is otherwise necessary to amend or supplement the Prospectus to comply with applicable law, the Company agrees (subject to Section 3(b) and Section 3(c)) hereof to promptly prepare, file with the Commission and furnish, at its own expense, to the Underwriters and to any dealer upon request, amendments or supplements to the Prospectus so that the statements in the Prospectus as so amended or supplemented will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances when the Prospectus is delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule) to a purchaser, not misleading or so that the Prospectus, as amended or supplemented, will comply with applicable law. Neither the Representatives' consent to, nor delivery of, any such amendment or supplement shall constitute a waiver of any of the Company's obligations under Section 3(b) or Section 3(c).

(h) ***Blue Sky Compliance*****.** The Company shall cooperate with the Representatives and counsel for the Underwriters to qualify or register the Offered Shares for sale under (or obtain exemptions from the application of) the state securities or blue sky laws or Canadian provincial securities laws (or other foreign laws) of those jurisdictions as may be reasonably designated by the Representatives, shall comply with such laws and shall continue such qualifications, registrations and exemptions in effect so long as required for the distribution of the Offered Shares. The Company shall not be required to qualify as a foreign corporation or to take any action that would subject it to general service of process in any such jurisdiction where it is not presently qualified or where it would be subject to taxation as a foreign corporation. The Company will advise the Representatives promptly of the suspension of the qualification or registration of (or any such exemption relating to) the Offered Shares for offering, sale or trading in any jurisdiction or if the Company gains knowledge of such proceeding, any initiation or threat of any proceeding for any such purpose, and in the event of the issuance of any order suspending such qualification, registration or exemption, the Company shall use its reasonable best efforts to obtain the withdrawal thereof as soon as practicable.

(i) ***Use of Proceeds*****.** The Company shall apply the net proceeds from the sale of the Offered Shares sold by it in all material respects in the manner described under the caption "Use of Proceeds" in the Registration Statement, the Time of Sale Prospectus and the Prospectus.

(j) ***Transfer Agent*****.** The Company shall engage and maintain, at its expense, a registrar and transfer agent for the Shares.

(k) ***Earnings Statement*****.** The Company will make generally available to its security holders and to the Representatives as soon as reasonably practicable an earnings statement (which need not be audited) covering a period of at least twelve months beginning with the first fiscal quarter of the

Company commencing after the date of this Agreement that will satisfy the provisions of Section 11(a) of the Securities Act and the rules and regulations of the Commission thereunder.

(l) ***Continued Compliance with Securities Laws*****.** The Company will comply with the Securities Act and the Exchange Act so as to permit the completion of the distribution of the Offered Shares as contemplated by this Agreement**,** the Registration Statement, the Time of Sale Prospectus and the Prospectus. Without limiting the generality of the foregoing, the Company will, during the period when a prospectus relating to the Offered Shares is required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule), file on a timely basis with the Commission and Nasdaq all reports and documents required to be filed under the Exchange Act. Additionally, the Company shall report the use of proceeds from the issuance of the Offered Shares as may be required under Rule 463 under the Securities Act.

(m) ***Listing*****.** The Company will use its reasonable best efforts to list, subject to notice of issuance, the Offered Shares on Nasdaq.

(n) ***Company to Provide Copy of the Prospectus in Form That May be Downloaded from the Internet*****.** If requested by the Representatives, the Company shall cause to be prepared and delivered, at its expense, within one business day from the effective date of this Agreement, to the Representatives an "**electronic Prospectus**" to be used by the Underwriters in connection with the offering and sale of the Offered Shares. As used herein, the term "**electronic Prospectus**" means a form of the Prospectus, and any amendment or supplement thereto, that meets each of the following conditions: (i) it shall be encoded in an electronic format, reasonably satisfactory to the Representatives, that may be transmitted electronically by the Representatives and the other Underwriters to offerees and purchasers of the Offered Shares; (ii) it shall disclose the same information as the paper Prospectus, except to the extent that graphic and image material cannot be disseminated electronically, in which case such graphic and image material shall be replaced in the electronic Prospectus with a fair and accurate narrative description or tabular representation of such material, as appropriate; and (iii) it shall be in or convertible into a paper format or an electronic format, reasonably satisfactory to the Representatives, that will allow investors to store and have continuously ready access to the Prospectus at any future time, without charge to investors (other than any fee charged for subscription to the Internet as a whole and for on-line time).

(o) ***Agreement Not to Offer or Sell Additional Shares*****.** During the period commencing on and including the date hereof and continuing through and including the 180th day following the date of the Prospectus (such period, as extended as described below, being referred to herein as the "**Lock-up Period**"), the Company will not, without the prior written consent of Jefferies (which consent may be withheld in its sole discretion), directly or indirectly: (i) sell, offer to sell, contract to sell or lend any Shares or Related Securities (as defined below); (ii) effect any short sale, or establish or increase any "put equivalent position" (as defined in Rule 16a-1(h) under the Exchange Act) or liquidate or decrease any "call equivalent position" (as defined in Rule 16a-1(b) under the Exchange Act) of any Shares or Related Securities; (iii) pledge, hypothecate or grant any security interest in any Shares or Related Securities; (iv) in any other way transfer or dispose of any Shares or Related Securities; (v) enter into any swap, hedge or similar arrangement or agreement that transfers, in whole or in part, the economic risk of ownership of any Shares or Related Securities, regardless of whether any such transaction is to be settled in securities, in cash or otherwise; (vi) announce the offering of any Shares or Related Securities; (vii) submit or file any registration statement under the Securities Act in respect of any Shares or Related Securities (other than as contemplated by this Agreement with respect to the Offered Shares); (viii) effect a reverse stock split, recapitalization, share consolidation, reclassification or similar transaction affecting the outstanding Shares; or (ix) publicly announce the intention to do any of the foregoing; *provided, however*, that the

Company may (A) effect the transactions contemplated hereby, (B) issue Shares or options to purchase Shares, or issue Shares upon exercise of options, pursuant to any stock option, stock bonus, employee stock purchase plan, or other stock plan or arrangement described in the Registration Statement, the Time of Sale Prospectus and the Prospectus, but only if the holders of such Shares or options agree in writing with the Underwriters not to sell, offer, dispose of or otherwise transfer any such Shares or options during such Lock-up Period without the prior written consent of Jefferies (which consent may be withheld in its sole discretion), (C) issue Shares or Related Securities to any non-employee director pursuant to any non-employee director compensation plan or program described in the Registration Statement, the Time of Sale Prospectus and the Prospectus, (D) file one or more registration statements on Form S-8 to register Shares or Related Securities issued or issuable pursuant to any plans or programs described in (B) or (C) above, and (E) issue Shares or Related Securities, or enter into an agreement to issue Shares or Related Securities, in connection with any merger, joint venture, strategic alliances, commercial, lending or other collaborative or strategic transaction, or the acquisition or license of the business, property, technology or other assets of another individual or entity or the assumption of an employee benefit plan in connection with a merger or acquisition; *provided* that the aggregate number of Shares or Related Securities (on an as-converted or as-exercised basis, as the case may be) that the Company may issue or agree to issue pursuant to this clause (E) shall not exceed 5% of the total number of shares of common stock of the Company immediately following the completion of the transactions contemplated by this Agreement and that each recipient thereof provides to the Representatives a signed Lock-up Agreement substantially in the form of Exhibit A hereto. For purposes of the foregoing, "**Related Securities**" shall mean any options or warrants or other rights to acquire Shares or any securities exchangeable or exercisable for or convertible into Shares, or to acquire other securities or rights ultimately exchangeable or exercisable for, or convertible into, Shares.

(p) ***Future Reports to the Representatives.*** During the period of five years hereafter, the Company will furnish to the Representatives, c/o Jefferies, at 520 Madison Avenue, New York, New York 10022, Attention: Global Head of Syndicate and TD Securities (USA) LLC, 1 Vanderbilt Avenue, New York, New York 10017, Attention: Head of Equity Capital Markets, Fax: 646-562-1249 with a copy to the General Counsel, Fax: 646-562-1130: (i) as soon as practicable after the end of each fiscal year, copies of the Annual Report of the Company containing the balance sheet of the Company as of the close of such fiscal year and statements of income, stockholders' equity (deficit) and cash flows for the year then ended and the opinion thereon of the Company's independent public or certified public accountants; (ii) as soon as practicable after the filing thereof, copies of each proxy statement, Annual Report on Form 10-K, Quarterly Report on Form 10-Q, Current Report on Form 8-K or other report filed by the Company with the Commission, FINRA or any securities exchange; and (iii) as soon as practicable, copies of any report or communication of the Company furnished or made available generally to holders of its capital stock; *provided, however,* that the requirements of this Section 3(p) shall be satisfied to the extent that such reports, statement, communications, financial statements or other documents are available on EDGAR.

(q) ***Investment Limitation*****.** The Company shall not invest or otherwise use the proceeds received by the Company from its sale of the Offered Shares in such a manner as would require the Company or any of its subsidiaries to register as an investment company under the Investment Company Act.

(r) ***No Stabilization or Manipulation; Compliance with Regulation M*****.** The Company will not take, and will ensure that no affiliate of the Company will take, directly or indirectly, without giving effect to activities by the Underwriters, any action designed to or that would reasonably be expected to cause or result in stabilization or manipulation of the price of the Shares or any reference security with

respect to the Shares, whether to facilitate the sale or resale of the Offered Shares or otherwise, and the Company will, and shall cause each of its affiliates to, comply with all applicable provisions of Regulation M.

(s) ***Enforce Lock-Up Agreements.*** During the Lock-up Period, the Company will enforce all agreements between the Company and any of its securityholders that restrict or prohibit, expressly or in operation, the offer, sale or transfer of Shares or Related Securities or any of the other actions restricted or prohibited under the terms of the form of Lock-up Agreement. In addition, the Company will direct the transfer agent to place stop transfer restrictions upon any such securities of the Company that are bound by such "lock-up" agreements for the duration of the periods contemplated in such agreements, including, without limitation, "lock-up" agreements entered into by the Company's officers and directors and securityholders pursuant to Section 6(l) hereof.

(t) ***Company to Provide Interim Financial Statements.*** Prior to the First Closing Date and each applicable Option Closing Date, the Company will furnish the Underwriters, as soon as practicable after they have been prepared by or are available to the Company, a copy of any unaudited interim financial statements of the Company for any period subsequent to the period covered by the most recent financial statements appearing in the Registration Statement and the Prospectus, provided that the requirements of this Section 3(t) shall be deemed satisfied to the extent such financial statements are available on EDGAR.

(u) ***Amendments and Supplements to Permitted Section 5(d) Communications***. If at any time following the distribution of any Permitted Section 5(d) Communication, there occurred or occurs an event or development as a result of which such Permitted Section 5(d) Communication included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company will promptly notify the Representatives and will promptly amend or supplement, at its own expense, such Permitted Section 5(d) Communication to eliminate or correct such untrue statement or omission.

(v) ***Emerging Growth Company Status***. The Company will promptly notify the Representatives if the Company ceases to be an Emerging Growth Company at any time prior to the later of (i) the time when a prospectus relating to the Offered Shares is not required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule) and (ii) the expiration of the Lock-Up Period (as defined herein).

(w) ***Announcement Regarding Lock-ups.*** The Company agrees to announce the Representatives' intention to release any director or "officer" (within the meaning of Rule 16a-1(f) under the Exchange Act) of the Company from any of the restrictions imposed by any Lock-Up Agreement, by issuing, through a major news service, a press release in form and substance reasonably satisfactory to the Representatives or, if consented to by the Representatives, in a registration statement that is publicly filed in connection with a secondary offering of the Company's shares promptly following the Company's receipt of any notification from the Representatives in which such intention is indicated, but in any case not later than the close of the third business day prior to the date on which such release or waiver is to become effective; *provided*, *however*, that nothing shall prevent the Representatives, on behalf of the Underwriters, from announcing the same through a major news service, irrespective of whether the Company has made the required announcement; and *provided, further,* that no such announcement shall be made of any release or waiver granted solely to permit a transfer of securities that is not for

consideration and where the transferee has agreed in writing to be bound by the terms of a Lock-Up Agreement in the form set forth as Exhibit A hereto.

(x) ***Certification Regarding Beneficial Owners***. The Company will deliver to the Representatives, on the date of execution of this Agreement, a properly completed and executed Certification Regarding Beneficial Owners of Legal Entity Customers, together with copies of identifying documentation, and the Company undertakes to provide such additional supporting documentation as the Representatives may reasonably request in connection with the verification of the foregoing certification.

Section 4. Payment of Expenses. The Company agrees to pay all costs, fees and expenses incurred in connection with the performance of its obligations hereunder and in connection with the transactions contemplated hereby, including without limitation (i) all expenses incident to the issuance and delivery of the Offered Shares (including all printing and engraving costs), (ii) all fees and expenses of the registrar and transfer agent of the Shares, (iii) all necessary issue, stamp, transfer and other similar taxes in connection with the issuance and sale of the Offered Shares to the Underwriters, (iv) all fees and expenses of the Company's counsel, independent public or certified public accountants and other advisors, (v) all costs and expenses incurred in connection with the preparation, printing, filing, shipping and distribution of the Registration Statement (including financial statements, exhibits, schedules, consents and certificates of experts), the Time of Sale Prospectus, the Prospectus, each free writing prospectus prepared by or on behalf of, used by, or referred to by the Company, and each preliminary prospectus, each Permitted Section 5(d) Communication, and all amendments and supplements thereto, and this Agreement, (vi) all filing fees, and attorneys' fees and expenses incurred by the Company or documented attorney's fees and out-of-pocket expenses incurred by the Underwriters in connection with qualifying or registering (or obtaining exemptions from the qualification or registration of) all or any part of the Offered Shares for offer and sale under the state securities or blue sky laws or the provincial securities laws of Canada, and, if requested by the Representatives, and the documented costs of preparing and printing a "Blue Sky Survey" or memorandum and a "Canadian wrapper", and any supplements thereto, advising the Underwriters of such qualifications, registrations and exemptions, (vii) the costs, fees and expenses incurred by the Underwriters in connection with determining their compliance with the rules and regulations of FINRA related to the Underwriters' participation in the offering and distribution of the Offered Shares, including any related filing fees and the documented legal fees of, and disbursements by, counsel to the Underwriters; *provided, however*, that such legal fees, taken together with the legal fees described in clause (vi) above, shall not exceed $40,000 in the aggregate, (viii) the costs and expenses of the Company relating to investor presentations on any "road show", any Permitted Section 5(d) Communication or any Section 5(d) Oral Communication undertaken in connection with the offering of the Offered Shares, including, without limitation, expenses associated with the preparation or dissemination of any electronic road show, expenses associated with the production of road show slides and graphics, fees and expenses of any consultants engaged in connection with the road show presentations with the prior approval of the Company, travel and lodging expenses of the representatives, employees and officers of the Company and any such consultants (it being understood that the Underwriters will pay or cause to be paid the travel and lodging expenses of their representatives), and 50% of the cost of any aircraft chartered in connection with the road show (it being understood that the remaining 50% of the cost of any such chartered aircraft shall be borne by the Underwriters), (ix) the fees and expenses associated with listing the Offered Shares on Nasdaq, (x) all fees, costs and expenses related to the Selling Stockholder Resale Prospectus, and (y) all other fees, costs and expenses of the nature referred to in Item 13 of Part II of the Registration Statement. Except as provided in this Section 4 or in Section 7, Section 9 or Section 10 hereof, the Underwriters shall pay their own expenses, including the fees and disbursements of their counsel.

Section 5. Covenant of the Underwriters. Each Underwriter severally and not jointly covenants with the Company not to take any action that would result in the Company being required to file with the Commission pursuant to Rule 433(d) under the Securities Act a free writing prospectus prepared by or on behalf of such Underwriter that otherwise would not, but for such actions, be required to be filed by the Company under Rule 433(d).

Section 6. Conditions of the Obligations of the Underwriters. The respective obligations of the several Underwriters hereunder to purchase and pay for the Offered Shares as provided herein on the First Closing Date and, with respect to the Optional Shares, each Option Closing Date, shall be subject to the accuracy of the representations and warranties on the part of the Company set forth in Section 1 hereof as of the date hereof and as of the First Closing Date as though then made and, with respect to the Optional Shares, as of each Option Closing Date as though then made, to the timely performance by the Company of its covenants and other obligations hereunder, and to each of the following additional conditions:

(a) ***Comfort Letter*****.** On the date hereof, the Representatives shall have received from Moss Adams LLP, independent registered public accountant for the Company, a letter dated the date hereof addressed to the Underwriters, in form and substance reasonably satisfactory to the Representatives, containing statements and information of the type ordinarily included in accountant's "comfort letters" to underwriters, delivered according to Statement of Auditing Standards No. 72 (or any successor bulletin), with respect to the audited and unaudited financial statements and certain financial information contained in the Registration Statement, the Time of Sale Prospectus, and each free writing prospectus, if any.

(b) ***Compliance with Registration Requirements; No Stop Order; No Objection from FINRA.*** For the period from and after the date of this Agreement and through and including the First Closing Date and, with respect to any Optional Shares purchased after the First Closing Date, each Option Closing Date:

(i) The Company shall have filed the Prospectus with the Commission (including the information required by Rule 430A under the Securities Act) in the manner and within the time period required by Rule 424(b) under the Securities Act; or the Company shall have filed a post-effective amendment to the Registration Statement containing the information required by such Rule 430A, and such post-effective amendment shall have become effective.

(ii) No stop order suspending the effectiveness of the Registration Statement or any post-effective amendment to the Registration Statement shall be in effect, and no proceedings for such purpose shall have been instituted or threatened by the Commission.

(iii) FINRA shall have raised no objection to the fairness and reasonableness of the underwriting terms and arrangements.

(c) ***No Material Adverse Change or Ratings Agency Change*****.** For the period from and after the date of this Agreement and through and including the First Closing Date and, with respect to any Optional Shares purchased after the First Closing Date, each Option Closing Date:

(i) in the judgment of the Representatives there shall not have occurred any Material Adverse Change; and

(ii) there shall not have occurred any downgrading, nor shall any notice have been given of any intended or potential downgrading or of any review for a possible change that does not

indicate the direction of the possible change, in the rating accorded any securities of the Company or any of its subsidiaries by any "nationally recognized statistical rating organization" as that term is used in Rule 15c3-1(c)(2)(vi)(F) under the Exchange Act.

(d) ***Opinion of Counsel for the Company*****.** On each of the First Closing Date and each Option Closing Date the Representatives shall have received the opinion and negative assurance letter of DLA Piper LLP (US), counsel for the Company, dated as of such date, in form and substance reasonably satisfactory to the Representatives.

(e) ***Opinion of Counsel for the Underwriters*****.** On each of the First Closing Date and each Option Closing Date the Representatives shall have received the opinion and negative assurance letter of Cooley LLP, counsel for the Underwriters in connection with the offer and sale of the Offered Shares, in form and substance reasonably satisfactory to the Representatives, dated as of such date.

(f) ***Officers' Certificate*****.** On each of the First Closing Date and each Option Closing Date, the Representatives shall have received a certificate executed by the Chief Executive Officer or President of the Company and the Chief Financial Officer of the Company, dated as of such date, to the effect set forth in Section 6(b)(ii) and further to the effect that:

(i) for the period from and including the date of this Agreement through and including such date, there has not occurred any Material Adverse Change;

(ii) the representations, warranties and covenants of the Company set forth in Section 1 of this Agreement are true and correct with the same force and effect as though expressly made on and as of such date; and

(iii) the Company has complied with all the agreements hereunder and satisfied all the conditions on its part to be performed or satisfied hereunder at or prior to such date.

(g) ***Bring-down Comfort Letter*****.** On each of the First Closing Date and each Option Closing Date the Representatives shall have received from Moss Adams LLP, independent registered public accountant for the Company, a letter dated such date, in form and substance reasonably satisfactory to the Representatives, which letter shall: (i) reaffirm the statements made in the letter furnished by them pursuant to Section 6(a), except that the specified date referred to therein for the carrying out of procedures shall be no more than three business days prior to the First Closing Date or the applicable Option Closing Date, as the case may be; and (ii) cover certain financial information contained in the Prospectus.

(h) ***Lock-Up Agreements.*** On or prior to the date hereof, the Company shall have furnished to the Representatives an agreement in the form of Exhibit A hereto from each director and officer of the Company and substantially all of the securityholders of the Company, and each such agreement shall be in full force and effect on each of the First Closing Date and each Option Closing Date.

(i) ***Rule 462(b) Registration Statement*****.** In the event that a Rule 462(b) Registration Statement is filed in connection with the offering contemplated by this Agreement, such Rule 462(b) Registration Statement shall have been filed with the Commission on the date of this Agreement and shall have become effective automatically upon such filing.

(j) ***Approval of Listing***. At the First Closing Date, the Offered Shares shall have been approved for listing on Nasdaq, subject only to official notice of issuance.

(k) ***CFO Certificate***. On the date of this Agreement and on the First Closing Date or the applicable Option Closing Date, as the case may be, the Company shall have furnished to the Representatives a certificate, dated the respective dates of delivery thereof and addressed to the Representatives, of its chief financial officer with respect to the accuracy of certain financial data contained in the Time of Sale Prospectus and the Prospectus, providing "management comfort" with respect to such information, in form and substance reasonably satisfactory to the Representatives.

(l) ***Additional Documents***. On or before each of the First Closing Date and each Option Closing Date, the Representatives and counsel for the Underwriters shall have received such information, documents and opinions as they may reasonably request for the purposes of enabling them to pass upon the issuance and sale of the Offered Shares as contemplated herein, or in order to evidence the accuracy of any of the representations and warranties, or the satisfaction of any of the conditions or agreements, herein contained; and all proceedings taken by the Company in connection with the issuance and sale of the Offered Shares as contemplated herein and in connection with the other transactions contemplated by this Agreement shall be reasonably satisfactory in form and substance to the Representatives and counsel for the Underwriters.

If any condition specified in this Section 6 is not satisfied when and as required to be satisfied, this Agreement may be terminated by the Representatives by notice from the Representatives to the Company at any time on or prior to the First Closing Date and, with respect to the Optional Shares, at any time on or prior to the applicable Option Closing Date, which termination shall be without liability on the part of any party to any other party, except that Section 4, Section 7, Section 9 and Section 10 shall at all times be effective and shall survive such termination.

Section 7. Reimbursement of Underwriters' Expenses. If this Agreement is terminated by the Representatives pursuant to Section 6, Section 11 or clauses (i), (iv) or (v) of Section 12, or if the sale to the Underwriters of the Offered Shares on the First Closing Date is not consummated because of any refusal, inability or failure on the part of the Company to perform any agreement herein or to comply with any provision hereof, the Company agrees to reimburse the Representatives and the other Underwriters (or such Underwriters as have terminated this Agreement with respect to themselves), severally, upon demand for all out-of-pocket expenses that shall have been reasonably incurred by the Representatives and the Underwriters in connection with the proposed purchase and the offering and sale of the Offered Shares, including, but not limited to, the documented fees and disbursements of counsel, printing expenses, travel expenses, postage, facsimile and telephone charges. For the avoidance of doubt, it is understood that the Company will not pay or reimburse any costs, fees or expenses incurred by any Underwriter that defaults on its obligations to purchase the Offered Shares.

Section 8. Effectiveness of this Agreement. This Agreement shall become effective upon the execution and delivery hereof by the parties hereto.

Section 9. Indemnification.

(a) ***Indemnification of the Underwriters.*** The Company agrees to indemnify and hold harmless each Underwriter, its affiliates, directors, officers, employees and agents, and each person, if any, who controls any Underwriter within the meaning of the Securities Act or the Exchange Act against any loss, claim, damage, liability or expense, as incurred, to which such Underwriter or such affiliate, director, officer, employee, agent or controlling person may become subject, under the Securities Act, the Exchange Act, other federal or state statutory law or regulation, or the laws or regulations of foreign jurisdictions where Offered Shares have been offered or sold or at common law or otherwise (including in

settlement of any litigation, if such settlement is effected with the written consent of the Company), insofar as such loss, claim, damage, liability or expense (or actions in respect thereof as contemplated below) arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, or any amendment thereto, or the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading; or (ii) any untrue statement or alleged untrue statement of a material fact included in any preliminary prospectus, the Time of Sale Prospectus, any free writing prospectus that the Company has used, referred to or filed, or is required to file, pursuant to Rule 433(d) of the Securities Act, any Marketing Material, any Section 5(d) Written Communication, the Prospectus or the Selling Stockholder Resale Prospectus (or any amendment or supplement to any of the foregoing), or the omission or alleged omission to state therein a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; or (iii) any act or failure to act or any alleged act or failure to act by any Underwriter in connection with, or relating in any manner to, the Shares or the offering contemplated hereby, and which is included as part of or referred to in any loss, claim, damage, liability or action arising out of or based upon any matter covered by clause (i) or (ii) above; and to reimburse each Underwriter and each such affiliate, director, officer, employee, agent and controlling person for any and all reasonable and documented expenses (including the reasonable and documented fees and disbursements of counsel) as such expenses are incurred by such Underwriter or such affiliate, director, officer, employee, agent or controlling person in connection with investigating, defending, settling, compromising or paying any such loss, claim, damage, liability, expense or action; *provided, however*, that the foregoing indemnity agreement shall not apply to any loss, claim, damage, liability or expense to the extent, but only to the extent, arising out of or based upon any untrue statement or alleged untrue statement or omission or alleged omission made in reliance upon and in conformity with information relating to any Underwriter furnished to the Company by the Representatives in writing expressly for use in the Registration Statement, any preliminary prospectus, the Time of Sale Prospectus, any such free writing prospectus, any Marketing Material, any Section 5(d) Written Communication the Prospectus or the Selling Stockholder Resale Prospectus (or any amendment or supplement to any of the foregoing), it being understood and agreed that the only such information consists of the information described in Section 9(b) below. The indemnity agreement set forth in this Section 9(a) shall be in addition to any liabilities that the Company may otherwise have.

(b) ***Indemnification of the Company, its Directors and Officers***. Each Underwriter agrees, severally and not jointly, to indemnify and hold harmless the Company, each of its directors, each of its officers who signed the Registration Statement and each person, if any, who controls the Company within the meaning of the Securities Act or the Exchange Act, against any loss, claim, damage, liability or expense, as incurred, to which the Company, or any such director, officer or controlling person may become subject, under the Securities Act, the Exchange Act, or other federal or state statutory law or regulation, or at common law or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of such Underwriter), insofar as such loss, claim, damage, liability or expense (or actions in respect thereof as contemplated below) arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, or any amendment thereto, or any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading or (ii) any untrue statement or alleged untrue statement of a material fact included in any preliminary prospectus, the Time of Sale Prospectus, any free writing prospectus, that the Company has used, referred to or filed, or is required to file, pursuant to Rule 433 of the Securities Act, any Section 5(d) Written Communication or the Prospectus (or any such amendment or supplement) or the omission or alleged omission to state therein a material fact necessary in order to make the statements, in the light of the circumstances under which they were made, not misleading, in each case to the extent, but only to the extent, that such untrue statement or

alleged untrue statement or omission or alleged omission was made in the Registration Statement, such preliminary prospectus, the Time of Sale Prospectus, such free writing prospectus, such Section 5(d) Written Communication or the Prospectus (or any such amendment or supplement), in reliance upon and in conformity with information relating to such Underwriter furnished to the Company in writing by the Representatives in writing expressly for use therein; and to reimburse the Company, or any such director, officer or controlling person for any and all reasonable and documented expenses (including the reasonable and documented fees and disbursements of counsel) as such expenses are incurred by the Company, or any such director, officer or controlling person in connection with investigating, defending, settling, compromising or paying any such loss, claim, damage, liability, expense or action. The Company hereby acknowledges that the only information that the Representatives have furnished to the Company expressly for use in the Registration Statement, any preliminary prospectus, the Time of Sale Prospectus, any free writing prospectus that the Company has filed, or is required to file, pursuant to Rule 433(d) of the Securities Act, any Section 5(d) Written Communication or the Prospectus (or any amendment or supplement to the foregoing) are the statements set forth in the first and second sentences of the third paragraph, the first sentence of the fourth paragraph, the first three sentences under the first paragraph under the section entitled "Commission and Expenses," the first sentence under the section entitled "Stabilization," and the sixth paragraph under the section entitled "Stabilization," each under the caption "Underwriting" in the Preliminary Prospectus and the Prospectus. The indemnity agreement set forth in this Section 9(b) shall be in addition to any liabilities that each Underwriter may otherwise have.

(c) ***Notifications and Other Indemnification Procedures*.** Promptly after receipt by an indemnified party under this Section 9 of notice of the commencement of any action, such indemnified party will, if a claim in respect thereof is to be made against an indemnifying party under this Section 9, notify the indemnifying party in writing of the commencement thereof, but the omission to so notify the indemnifying party will not relieve the indemnifying party from any liability which it may have to any indemnified party to the extent the indemnifying party is not materially prejudiced as a proximate result of such failure and shall not in any event relieve the indemnifying party from any liability that it may have otherwise than on account of this indemnity agreement. In case any such action is brought against any indemnified party and such indemnified party seeks or intends to seek indemnity from an indemnifying party, the indemnifying party will be entitled to participate in, and, to the extent that it shall elect, jointly with all other indemnifying parties similarly notified, by written notice delivered to the indemnified party promptly after receiving the aforesaid notice from such indemnified party, to assume the defense thereof with counsel reasonably satisfactory to such indemnified party; *provided, however*, that if the defendants in any such action include both the indemnified party and the indemnifying party and the indemnified party shall have reasonably concluded based on the advice of counsel that a conflict may arise between the positions of the indemnifying party and the indemnified party in conducting the defense of any such action or that there may be legal defenses available to it and/or other indemnified parties which are different from or additional to those available to the indemnifying party, the indemnified party or parties shall have the right to select separate counsel to assume such legal defenses and to otherwise participate in the defense of such action on behalf of such indemnified party or parties. Upon receipt of notice from the indemnifying party to such indemnified party of such indemnifying party's election to so assume the defense of such action and approval by the indemnified party of counsel, the indemnifying party will not be liable to such indemnified party under this Section 9 for any legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof unless (i) the indemnified party shall have employed separate counsel in accordance with the proviso to the preceding sentence (it being understood, however, that the indemnifying party shall not be liable for the fees and expenses of more than one separate counsel (together with local counsel), representing the indemnified parties who are parties to such action), which counsel (together with any local counsel) for the indemnified parties shall be selected by the Representatives (in the case of counsel for the indemnified

parties referred to in Section 9(a) above) or by the Company (in the case of counsel for the indemnified parties referred to in Section 9(b) above)), (ii) the indemnifying party shall not have employed counsel reasonably satisfactory to the indemnified party to represent the indemnified party within a reasonable time after notice of commencement of the action or (iii) the indemnifying party has authorized in writing the employment of counsel for the indemnified party at the expense of the indemnifying party, in each of which cases the fees and expenses of counsel shall be at the expense of the indemnifying party and shall be paid as they are incurred.

(d) ***Settlements*****.** The indemnifying party under this Section 9 shall not be liable for any settlement of any proceeding effected without its written consent, but if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party against any loss, claim, damage, liability or expense by reason of such settlement or judgment. Notwithstanding the foregoing sentence, if at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel as contemplated by Section 9(c) hereof, the indemnifying party shall be liable for any settlement of any proceeding effected without its written consent if (i) such settlement is entered into more than 30 days after receipt by such indemnifying party of the aforesaid request and, (ii) such indemnifying party shall not have reimbursed the indemnified party in accordance with such request prior to the date of such settlement. No indemnifying party shall, without the prior written consent of the indemnified party, effect any settlement, compromise or consent to the entry of judgment in any pending or threatened action, suit or proceeding in respect of which any indemnified party is or could have been a party and indemnity was or could have been sought hereunder by such indemnified party, unless such settlement, compromise or consent includes an unconditional release of such indemnified party from all liability on claims that are the subject matter of such action, suit or proceeding and does not include an admission of fault or culpability or a failure to act by or on behalf of such indemnified party.

Section 10. Contribution. If the indemnification provided for in Section 9 is for any reason held to be unavailable to or otherwise insufficient to hold harmless an indemnified party in respect of any losses, claims, damages, liabilities or expenses referred to therein, then each indemnifying party shall contribute to the aggregate amount paid or payable by such indemnified party, as incurred, as a result of any losses, claims, damages, liabilities or expenses referred to therein (i) in such proportion as is appropriate to reflect the relative benefits received by the Company, on the one hand, and the Underwriters, on the other hand, from the offering of the Offered Shares pursuant to this Agreement or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company, on the one hand, and the Underwriters, on the other hand, in connection with the statements or omissions which resulted in such losses, claims, damages, liabilities or expenses, as well as any other relevant equitable considerations. The relative benefits received by the Company, on the one hand, and the Underwriters, on the other hand, in connection with the offering of the Offered Shares pursuant to this Agreement shall be deemed to be in the same respective proportions as the total proceeds from the offering of the Offered Shares pursuant to this Agreement (before deducting expenses) received by the Company, and the total underwriting discounts and commissions received by the Underwriters, in each case as set forth on the front cover page of the Prospectus, bear to the aggregate initial public offering price of the Offered Shares as set forth on such cover. The relative fault of the Company, on the one hand, and the Underwriters, on the other hand, shall be determined by reference to, among other things, whether any such untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company, on the one hand, or the Underwriters, on the other hand, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

The amount paid or payable by a party as a result of the losses, claims, damages, liabilities and expenses referred to above shall be deemed to include, subject to the limitations set forth in Section 9(c), any legal or other fees or expenses reasonably incurred by such party in connection with investigating or defending any action or claim. The provisions set forth in Section 9(c) with respect to notice of commencement of any action shall apply if a claim for contribution is to be made under this Section 10; *provided, however,* that no additional notice shall be required with respect to any action for which notice has been given under Section 9(c) for purposes of indemnification.

The Company and the Underwriters agree that it would not be just and equitable if contribution pursuant to this Section 10 were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to in this Section 10.

Notwithstanding the provisions of this Section 10, no Underwriter shall be required to contribute any amount in excess of the underwriting discounts and commissions received by such Underwriter in connection with the Offered Shares underwritten by it and distributed to the public. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations to contribute pursuant to this Section 10 are several, and not joint, in proportion to their respective underwriting commitments as set forth opposite their respective names on Schedule A. For purposes of this Section 10, each affiliate, director, officer, employee and agent of an Underwriter and each person, if any, who controls an Underwriter within the meaning of the Securities Act or the Exchange Act shall have the same rights to contribution as such Underwriter, and each director of the Company, each officer of the Company who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of the Securities Act and the Exchange Act shall have the same rights to contribution as the Company.

Section 11. Default of One or More of the Several Underwriters. If, on the First Closing Date or any Option Closing Date any one or more of the several Underwriters shall fail or refuse to purchase Offered Shares that it or they have agreed to purchase hereunder on such date, and the aggregate number of Offered Shares which such defaulting Underwriter or Underwriters agreed but failed or refused to purchase does not exceed 10% of the aggregate number of the Offered Shares to be purchased on such date, the Representatives may make arrangements satisfactory to the Company for the purchase of such Offered Shares by other persons, including any of the Underwriters, but if no such arrangements are made by such date, the other Underwriters shall be obligated, severally and not jointly, in the proportions that the number of Firm Shares set forth opposite their respective names on Schedule A bears to the aggregate number of Firm Shares set forth opposite the names of all such non-defaulting Underwriters, or in such other proportions as may be specified by the Representatives with the consent of the non-defaulting Underwriters, to purchase the Offered Shares which such defaulting Underwriter or Underwriters agreed but failed or refused to purchase on such date. If, on the First Closing Date or any Option Closing Date any one or more of the Underwriters shall fail or refuse to purchase Offered Shares and the aggregate number of Offered Shares with respect to which such default occurs exceeds 10% of the aggregate number of Offered Shares to be purchased on such date, and arrangements satisfactory to the Representatives and the Company for the purchase of such Offered Shares are not made within 48 hours after such default, this Agreement shall terminate without liability of any party to any other party except that the provisions of Section 4, Section 7, Section 9 and Section 10 shall at all times be effective and shall survive such termination. In any such case either the Representatives or the Company shall have the right to postpone the First Closing Date or the applicable Option Closing Date, as the case may

be, but in no event for longer than seven days in order that the required changes, if any, to the Registration Statement and the Prospectus or any other documents or arrangements may be effected.

As used in this Agreement, the term "**Underwriter**" shall be deemed to include any person substituted for a defaulting Underwriter under this Section 11. Any action taken under this Section 11 shall not relieve any defaulting Underwriter from liability in respect of any default of such Underwriter under this Agreement.

Section 12. Termination of this Agreement. Prior to the purchase of the Firm Shares by the Underwriters on the First Closing Date, this Agreement may be terminated by the Representatives by notice given to the Company if at any time: (i) trading or quotation in any of the Company's securities shall have been suspended or limited by the Commission or by Nasdaq, or trading in securities generally on either Nasdaq or the New York Stock Exchange shall have been suspended or limited, or minimum or maximum prices shall have been generally established on any of such stock exchanges; (ii) a general banking moratorium shall have been declared by any of federal, New York or California authorities; (iii) there shall have occurred any outbreak or escalation of national or international hostilities or any crisis or calamity, or any change in the United States or international financial markets, or any substantial change or development involving a prospective substantial change in United States' or international political, financial or economic conditions, as in the judgment of the Representatives is material and adverse and makes it impracticable to market the Offered Shares in the manner and on the terms described in the Time of Sale Prospectus or the Prospectus or to enforce contracts for the sale of securities; (iv) in the judgment of the Representatives there shall have occurred any Material Adverse Change; or (v) the Company shall have sustained a loss by strike, fire, flood, earthquake, accident or other calamity of such character as in the judgment of the Representatives may interfere materially with the conduct of the business and operations of the Company regardless of whether or not such loss shall have been insured. Any termination pursuant to this Section 12 shall be without liability on the part of (a) the Company to any Underwriter, except that the Company shall be obligated to reimburse the expenses of the Representatives and the Underwriters pursuant to Section 4 or Section 7 hereof or (b) any Underwriter to the Company; *provided, however,* that the provisions of Section 9 and Section 10 shall at all times be effective and shall survive such termination.

Section 13. No Advisory or Fiduciary Relationship. The Company acknowledges and agrees that (a) the purchase and sale of the Offered Shares pursuant to this Agreement, including the determination of the public offering price of the Offered Shares and any related discounts and commissions, is an arm's-length commercial transaction between the Company, on the one hand, and the several Underwriters, on the other hand, (b) in connection with the offering contemplated hereby and the process leading to such transaction, each Underwriter is and has been acting solely as a principal and is not the agent or fiduciary of the Company, or its stockholders, creditors, employees or any other party, (c) no Underwriter has assumed or will assume an advisory or fiduciary responsibility in favor of the Company with respect to the offering contemplated hereby or the process leading thereto (irrespective of whether such Underwriter has advised or is currently advising the Company on other matters) and no Underwriter has any obligation to the Company with respect to the offering contemplated hereby except the obligations expressly set forth in this Agreement, (d) the Underwriters and their respective affiliates may be engaged in a broad range of transactions that involve interests that differ from those of the Company, and (e) the Underwriters have not provided any legal, accounting, regulatory or tax advice with respect to the offering contemplated hereby and the Company has consulted its own legal, accounting, regulatory and tax advisors to the extent it deemed appropriate.

Section 14. Representations and Indemnities to Survive Delivery. The respective indemnities, agreements, representations, warranties and other statements of the Company, of its officers and of the several Underwriters set forth in or made pursuant to this Agreement will remain in full force and effect, regardless of any investigation made by or on behalf of any Underwriter or the Company or any of its or their partners, officers or directors or any controlling person, as the case may be, and, anything herein to the contrary notwithstanding, will survive delivery of and payment for the Offered Shares sold hereunder and any termination of this Agreement.

Section 15. Notices. All communications hereunder shall be in writing and shall be mailed, hand delivered or telecopied and confirmed to the parties hereto as follows:

If to the Representatives:	Jefferies LLC 520 Madison Avenue New York, New York 10022 Facsimile: (646) 619-4437 Attention: General Counsel
	TD Securities (USA) LLC 1 Vanderbilt Avenue New York, New York 10017 Facsimile: (646) 562-1249 Attention: General Counsel
with a copy to:	Cooley LLP 3175 Hanover Street Palo Alto, California 94304 Facsimile: (650) 849-7400 Attention: Eric Jensen
If to the Company:	Silvaco Group, Inc. 4701 Patrick Henry Drive, Building #23 Santa Clara, California 95054 Attention: General Counsel
with a copy to:	DLA Piper LLP (US) 2000 University Avenue East Palo Alto, California 94303 Facsimile: (650) 833 2001 Attention: Gurpreet Bal

Any party hereto may change the address for receipt of communications by giving written notice to the others.

Section 16. Successors. This Agreement will inure to the benefit of and be binding upon the parties hereto, including any substitute Underwriters pursuant to Section 11 hereof, and to the benefit of the affiliates, directors, officers, employees, agents and controlling persons referred to in Section 9 and Section 10, and in each case their respective successors, and personal representatives,

and no other person will have any right or obligation hereunder. The term "**successors**" shall not include any purchaser of the Offered Shares as such from any of the Underwriters merely by reason of such purchase.

Section 17. Partial Unenforceability. The invalidity or unenforceability of any section, paragraph or provision of this Agreement shall not affect the validity or enforceability of any other section, paragraph or provision hereof. If any section, paragraph or provision of this Agreement is for any reason determined to be invalid or unenforceable, there shall be deemed to be made such minor changes (and only such minor changes) as are necessary to make it valid and enforceable.

Section 18. Recognition of the U.S. Special Resolution Regimes.

(a) In the event that any Underwriter that is a Covered Entity becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer from such Underwriter of this Agreement, and any interest and obligation in or under this Agreement, will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if this Agreement, and any such interest and obligation, were governed by the laws of the United States or a state of the United States.

(b) In the event that any Underwriter that is a Covered Entity or a BHC Act Affiliate of such Underwriter becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under this Agreement that may be exercised against such Underwriter are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if this Agreement were governed by the laws of the United States or a state of the United States.

For purposes of this Agreement, (A) "**BHC Act Affiliate**" has the meaning assigned to the term "affiliate" in, and shall be interpreted in accordance with, 12 U.S.C. § 1841(k); (B) "**Covered Entity**" means any of the following: (i) a "covered entity" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b); (ii) a "covered bank" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or (iii) a "covered FSI" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b); (C) "**Default Right**" has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable; and (D) "**U.S. Special Resolution Regime**" means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder.

Section 19. Governing Law Provisions. This Agreement shall be governed by and construed in accordance with the internal laws of the State of New York applicable to agreements made and to be performed in such state. Any legal suit, action or proceeding arising out of or based upon this Agreement or the transactions contemplated hereby ("**Related Proceedings**") may be instituted in the federal courts of the United States of America located in the Borough of Manhattan in the City of New York or the courts of the State of New York in each case located in the Borough of Manhattan in the City of New York (collectively, the "**Specified Courts**"), and each party irrevocably submits to the exclusive jurisdiction (except for proceedings instituted in regard to the enforcement of a judgment of any such court (a "**Related Judgment**"), as to which such jurisdiction is non-exclusive) of such courts in any such suit, action or proceeding. Service of any process, summons, notice or document by mail to such party's address set forth above shall be effective service of process for any suit, action or other proceeding brought in any such court. The parties irrevocably and unconditionally waive any objection to the laying of venue of any suit, action or other proceeding in the Specified Courts and irrevocably and

unconditionally waive and agree not to plead or claim in any such court that any such suit, action or other proceeding brought in any such court has been brought in an inconvenient forum.

With respect to any Related Proceeding, each party irrevocably waives, to the fullest extent permitted by applicable law, all immunity (whether on the basis of sovereignty or otherwise) from jurisdiction, service of process, attachment (both before and after judgment) and execution to which it might otherwise be entitled in the Specified Courts, and with respect to any Related Judgment, each party waives any such immunity in the Specified Courts or any other court of competent jurisdiction, and will not raise or claim or cause to be pleaded any such immunity at or in respect of any such Related Proceeding or Related Judgment, including, without limitation, any immunity pursuant to the United States Foreign Sovereign Immunities Act of 1976, as amended.

Section 20. General Provisions. This Agreement constitutes the entire agreement of the parties to this Agreement and supersedes all prior written or oral and all contemporaneous oral agreements, understandings and negotiations with respect to the subject matter hereof. This Agreement may be executed in two or more counterparts, each one of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. In the event that any signature is delivered by facsimile transmission or by e-mail delivery of a ".pdf" format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or ".pdf" signature page were an original thereof. Counterparts may be delivered via facsimile, electronic mail (including any electronic signature covered by the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act, the Electronic Signatures and Records Act or other applicable law, e.g., www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes. This Agreement may not be amended or modified unless in writing by all of the parties hereto, and no condition herein (express or implied) may be waived unless waived in writing by each party whom the condition is meant to benefit. The section headings herein are for the convenience of the parties only and shall not affect the construction or interpretation of this Agreement.

Each of the parties hereto acknowledges that it is a sophisticated business person who was adequately represented by counsel during negotiations regarding the provisions hereof, including, without limitation, the indemnification provisions of Section 9 and the contribution provisions of Section 10, and is fully informed regarding said provisions. Each of the parties hereto further acknowledges that the provisions of Section 9 and Section 10 hereof fairly allocate the risks in light of the ability of the parties to investigate the Company, its affairs and its business in order to assure that adequate disclosure has been made in the Registration Statement, any preliminary prospectus, the Time of Sale Prospectus, each free writing prospectus and the Prospectus (and any amendments and supplements to the foregoing), as contemplated by the Securities Act and the Exchange Act.

If the foregoing is in accordance with your understanding of our agreement, kindly sign and return to the Company the enclosed copies hereof, whereupon this instrument, along with all counterparts hereof, shall become a binding agreement in accordance with its terms.

Very truly yours,

SILVACO GROUP, INC.

By: _____
Name:
Title:

The foregoing Underwriting Agreement is hereby confirmed and accepted by the Representatives in New York, New York as of the date first above written.

JEFFERIES LLC
TD SECURITIES (USA) LLC

Acting individually and as Representatives
of the several Underwriters named in
the attached Schedule A.

JEFFERIES LLC

By: _____
Name:
Title:

TD SECURITIES (USA) LLC

By: _____
Name:
Title:

Schedule A

Underwriters	**Number of Firm Shares to be Purchased**	**Number of Optional Shares to be Purchased**
Jefferies LLC	[●]	[●]
TD Securities (USA) LLC	[●]	[●]
B. Riley Securities, Inc.	[●]	[●]
Craig-Hallum Capital Group LLC	[●]	[●]
Rosenblatt Securities Inc.	[●]	[●]
Total	[●]	[●]

Schedule B

Free Writing Prospectuses Included in the Time of Sale Prospectus

[None.]

Pricing Information Included in the Time of Sale Prospectus

Price per share to the public:	$[●]
Number of shares being sold by the Company:	[●]
Number of shares potentially issuable pursuant to the option to purchase additional shares:	[●]

Schedule C

Permitted Section 5(d) Communications

Silvaco Group, Inc. presentation, dated October 2022 – April 2024

Exhibit A

Form of Lock-up Agreement

_____

Jefferies LLC
TD Securities (USA) LLC
As Representatives of the Several Underwriters

c/o Jefferies LLC
520 Madison Avenue
New York, New York 10022

c/o TD Securities (USA) LLC
1 Vanderbilt Avenue
New York, New York 10017

RE: Silvaco Group, Inc. (the "**Company**")

Ladies & Gentlemen:

The undersigned is an owner of shares of common stock, par value $0.0001 per share, of the Company ("**Shares**") or of securities convertible into or exchangeable or exercisable for Shares. The Company proposes to conduct a public offering of Shares (the "**Offering**") for which Jefferies LLC ("**Jefferies**") and TD Securities (USA) LLC ("**TD Cowen**") will act as the representatives of the underwriters. The undersigned recognizes that the Offering will benefit each of the Company and the undersigned. The undersigned acknowledges that the underwriters are relying on the representations and agreements of the undersigned contained in this letter agreement (this "**Agreement**") in conducting the Offering and, at a subsequent date, in entering into an underwriting agreement (the "**Underwriting Agreement**") and other underwriting arrangements with the Company with respect to the Offering.

Annex A sets forth definitions for capitalized terms used in this Agreement that are not defined in the body of this Agreement. Those definitions are a part of this Agreement.

In consideration of the foregoing, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned hereby agrees that, during the Lock-up Period, the undersigned will not (and will use reasonable best efforts to cause any Family Member not to), without the prior written consent of Jefferies, which may withhold its consent in its sole discretion:

- Sell or Offer to Sell any Shares or Related Securities currently or hereafter owned either of record or beneficially (as defined in Rule 13d-3 under the Exchange Act) by the undersigned or such Family Member,
- enter into any Swap,
- make any demand for, or exercise any right with respect to, the registration under the Securities Act of the offer and sale of any Shares or Related Securities, or cause to be filed a

registration statement, prospectus or prospectus supplement (or an amendment or supplement thereto) with respect to any such registration, or

- publicly announce any intention to do any of the foregoing.

The foregoing will not apply to the registration of the offer and sale of the Shares, and the sale of the Shares to the underwriters, in each case as contemplated by the Underwriting Agreement. In addition, the foregoing restrictions shall not apply to:

(a) transactions relating to Shares acquired in the Offering (other than any issuer-directed shares of the Company's common stock purchased in the Offering by an officer or director of the Company) or in open market transactions after the completion of the Offering;

(b) the transfer of Shares or Related Securities by gift, including to a bona fide charitable organization, or by will or intestate succession to the legal representative, heir or beneficiary of the undersigned or any Family Member or to a trust whose beneficiaries consist exclusively of one or more of the undersigned and/or a Family Member;

(c) transfers of Shares or any Related Securities pursuant to a domestic order or negotiated divorce settlement; provided that any filing under Section 16(a) of the Exchange Act with regard to this clause (c) shall clearly indicate in the footnotes thereto that the filing relates to the circumstances described in this clause (c), that no Shares were sold by the reporting person and no other public announcement shall be required or shall be made voluntarily in connection with such exercise;

(d) if the undersigned is a corporation, partnership, limited liability company, trust or other business entity, distributions or transfers of Shares or Related Securities to (x) another corporation, partnership, limited liability company, trust or other business entity that is a direct or indirect affiliate (as defined in Rule 405 promulgated under the Securities Act) of the undersigned, (y) any investment fund or other entity controlling, controlled by, managing or managed by or under common control with the undersigned or affiliates of the undersigned (including, for the avoidance of doubt, where the undersigned is a partnership, to its general partner or a successor partnership or fund, or any other funds managed by such partnership), or (z) limited partners, general partners, members, managers, managing members, stockholders, beneficiaries or other equity holders of the undersigned or of the entities described in the preceding clauses (x) and (y); provided that such transfer shall not involve a disposition for value and provided, further that, if required, any public report or filing under Section 16(a) of the Exchange Act with regards to this clause (d) shall clearly indicate in the footnotes thereto that the filing relates to the circumstances described in this clause (d), that no Shares were sold by the reporting person and no other public announcement shall be required or shall be made voluntarily in connection with such transfer;

(e) transfers or dispositions of Shares to the Company as forfeitures or the withholding of Shares (x) to satisfy tax withholding and remittance obligations of the undersigned in connection with the vesting or exercise of equity awards granted pursuant to the Company's equity incentive plans described in the final prospectus relating to the Offering or (y) pursuant to a net exercise or cashless exercise by the undersigned of outstanding equity awards pursuant to the Company's equity incentive plans described in the final prospectus relating to the Offering; provided that the Shares issued upon such exercise or vesting shall continue to be subject to the restrictions on transfer set forth in this Agreement; and provided, further that, if required, any public report or filing under Section 16 of the Exchange Act shall clearly

indicate in the footnotes thereto that the filing relates to the net settlement of an equity award or the withholding of Shares is to satisfy tax withholding, as applicable, that no Shares were sold by the reporting person and that Shares received upon exercise or vesting are subject to this Agreement;

(f) transfers of Shares or Related Securities pursuant to a change of control of the Company (meaning the consummation of any bona fide third party tender offer, merger, consolidation or other similar transaction made to all holders of Shares the result of which is that any "person" (as defined in Section 13(d)(3) of the Exchange Act), or group of persons, becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 of the Exchange Act) of more than 50% of the voting capital stock of the Company) after the Offering that has been approved by the independent members of the Company's board of directors, provided that in the event that such change of control is not completed, the Shares or Related Securities owned by the undersigned shall remain subject to the restrictions herein;

(g) transfers of Shares or Related Securities to the Company as a result of the termination of employment of the undersigned pursuant to agreements that are in effect as of the date of the Underwriting Agreement for the Offering and disclosed in the final prospectus relating to the Offering, under which the Company has the option to repurchase such Shares or Related Securities or a right of first refusal with respect to transfers of such Shares or Related Securities; provided that no filing under the Exchange Act or other public disclosure shall be voluntarily made during the Lock-up Period and any filing under the Exchange Act or other public disclosure required to be made during the Lock-up Period shall include a statement to the effect that such transfer relates to the circumstances described in this clause (g);

provided, *however*, that in any such case, it shall be a condition to such transfer or distribution provided in:

(i) clauses (b), (c) and (d), that each transferee (to the extent such transferee has not previously executed an agreement substantially in the form of this Agreement) executes and delivers to Jefferies an agreement in form and substance satisfactory to Jefferies stating that such transferee is receiving and holding such Shares and/or Related Securities subject to the provisions of this Agreement and agrees not to Sell or Offer to Sell such Shares and/or Related Securities, engage in any Swap or engage in any other activities restricted under this Agreement except in accordance with this Agreement (as if such transferee had been an original signatory hereto), and

(ii) clauses (a) and (b), that prior to the expiration of the Lock-up Period, no public disclosure or filing under the Exchange Act by any party to the transfer (donor, donee, transferor or transferee) shall be required, or made voluntarily, reporting a reduction in beneficial ownership of Shares in connection with such transfer. If the undersigned is an officer or director of the Company, the undersigned further agrees that the foregoing provisions shall be equally applicable to any Company-directed Shares the undersigned may purchase or otherwise receive in the Offering (including pursuant to a directed share program).

Furthermore, notwithstanding the restrictions imposed by this agreement, the undersigned may establish or amend a written trading plan meeting the requirements of Rule 10b5-1 under the Exchange Act relating to the transfer of Shares or Related Securities, provided that such plan does not provide for any transfers of Shares or Related Securities during the Lock-up Period and any required public disclosure, announcement or filing under the Exchange Act made by the Company or any person

regarding the establishment or amendment of such plan during the Lock-Up Period shall include a statement that the undersigned is not permitted to transfer, sell or otherwise dispose of securities under such plan during the Lock-Up Period in contravention of this Lock-Up Agreement, and no public announcement, report or filing under the Exchange Act, or any other public filing, report or announcement, shall be voluntarily made regarding the establishment or amendment of such plan during the Lock-Up Period.

In addition, if the undersigned is an officer or director of the Company, (i) Jefferies agrees that, at least three business days before the effective date of any release or waiver of the foregoing restrictions in connection with a transfer of Shares, Jefferies will notify the Company of the impending release or waiver, and (ii) the Company (in accordance with the provisions of the Underwriting Agreement) will announce the impending release or waiver by press release through a major news service at least two business days before the effective date of the release or waiver. Any release or waiver granted by Jefferies hereunder to any such officer or director shall only be effective two business days after the publication date of such press release. The provisions of this paragraph will not apply if both (a) the release or waiver is effected solely to permit a transfer not for consideration and (b) the transferee has agreed in writing to be bound by the same terms described in this letter agreement that are applicable to the transferor to the extent and for the duration that such terms remain in effect at the time of the transfer.

The undersigned also agrees and consents to the entry of stop transfer instructions with the Company's transfer agent and registrar against the transfer of Shares or Related Securities held by the undersigned and the undersigned's Family Members, if any, except in compliance with the foregoing restrictions.

With respect to the Offering only, the undersigned waives any registration rights relating to registration under the Securities Act of the offer and sale of any Shares and/or any Related Securities owned either of record or beneficially by the undersigned, including any rights to receive notice of the Offering.

The undersigned confirms that the undersigned has not, and has no knowledge that any Family Member has, directly or indirectly, taken any action designed to or that might reasonably be expected to cause or result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale of the Shares. The undersigned will not, and will cause any Family Member not to take, directly or indirectly, any such action.

The undersigned acknowledges and agrees that the underwriters have not provided any recommendation or investment advice nor have the underwriters solicited any action from the undersigned with respect to the Offering and the undersigned has consulted their own legal, accounting, financial, regulatory and tax advisors to the extent deemed appropriate.

Whether or not the Offering occurs as currently contemplated or at all depends on market conditions and other factors. The Offering will only be made pursuant to the Underwriting Agreement, the terms of which are subject to negotiation between the Company and the underwriters.

If (i) prior to the execution of the Underwriting Agreement, the Company, on the one hand, or Jefferies, on the other hand, notifies the other in writing that it does not intend to proceed with the Offering, (ii) the Company files an application to withdraw the registration statement related to the Offering, (iii) the Underwriting Agreement is not executed on or before July 31, 2024, as such date may be extended for a period of up to three additional months by written notice from the Company to the

undersigned, or (iv) the Underwriting Agreement (other than the provisions thereof that survive termination) terminates or is terminated prior to the payment for and delivery of the Shares to be sold thereunder, then in each case, this Agreement shall automatically, and without any action on the part of any other party, terminate and be of no further force and effect, and the undersigned shall automatically be released from the obligations under this Agreement.

The undersigned hereby represents and warrants that the undersigned has full power, capacity and authority to enter into this Agreement. This Agreement is irrevocable and will be binding on the undersigned and the successors, heirs, personal representatives and assigns of the undersigned. This Agreement may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, e.g., docusign.com or www.echosign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and valid and effective for all purposes.

This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York.

Signature

Printed Name of Person Signing

(Indicate capacity of person signing if signing as custodian or trustee, or on behalf of an entity)

Certain Defined Terms
Used in Lock-up Agreement

For purposes of the letter agreement to which this Annex A is attached and of which it is made a part:

- "**Call Equivalent Position**" shall have the meaning set forth in Rule 16a-1(b) under the Exchange Act.
- "**Exchange Act**" shall mean the Securities Exchange Act of 1934, as amended.
- "**Family Member**" shall mean the spouse of the undersigned, an immediate family member of the undersigned or an immediate family member of the undersigned's spouse, in each case living in the undersigned's household or whose principal residence is the undersigned's household (regardless of whether such spouse or family member may at the time be living elsewhere due to educational activities, health care treatment, military service, temporary internship or employment or otherwise). "**Immediate family member**" as used above shall have the meaning set forth in Rule 16a-1(e) under the Exchange Act.
- "**Lock-up Period**" shall mean the period beginning on the date hereof and continuing through the close of trading on the date that is 180 days after the date of the Prospectus (as defined in the Underwriting Agreement.
- "**Put Equivalent Position**" shall have the meaning set forth in Rule 16a-1(h) under the Exchange Act.
- "**Related Securities**" shall mean any options or warrants or other rights to acquire Shares or any securities exchangeable or exercisable for or convertible into Shares, or to acquire other securities or rights ultimately exchangeable or exercisable for or convertible into Shares.
- "**Securities Act**" shall mean the Securities Act of 1933, as amended.
- "**Sell or Offer to Sell**" shall mean to:
  - sell, offer to sell, contract to sell or lend,
  - effect any short sale or establish or increase a Put Equivalent Position or liquidate or decrease any Call Equivalent Position
  - pledge, hypothecate or grant any security interest in, or
  - in any other way transfer or dispose of,

  in each case whether effected directly or indirectly.
- "**Swap**" shall mean any swap, hedge or similar arrangement or agreement that transfers, in whole or in part, the economic risk of ownership of Shares or Related Securities, regardless of whether any such transaction is to be settled in securities, in cash or otherwise.

Capitalized terms not defined in this Annex A shall have the meanings given to them in the body of this lock-up agreement.

SECOND CERTIFICATE OF AMENDMENT TO

CERTIFICATE OF INCORPORATION OF

SILVACO GROUP, INC.

Silvaco Group, Inc., a corporation organized and existing under the laws of the State of Delaware (the "Corporation"), hereby certifies as follows:

FIRST: The name of the Corporation is Silvaco Group, Inc.

SECOND: The original Certificate of Incorporation of the Corporation was filed with the Secretary of State of the State of Delaware on November 18, 2009 and amended pursuant to a Certificate of Amendment of Certificate of Incorporation filed with the Secretary of State of the State of Delaware on November 18, 2013 (as so amended, the "Existing Certificate").

THIRD: This amendment to the Existing Certificate as set forth below (this "Amendment") has been duly adopted in accordance with the provisions of Section 242 and has been consented to in writing by the stockholders of the Corporation, in accordance with Section 228 of the General Corporation Law of the State of Delaware.

FOURTH: Article IV of the Existing Certificate shall be amended and restated to read in full as follows:

"The aggregate number of shares which the Corporation shall have authority to issue is twenty-five million (25,000,000) shares of capital stock, all of which shall be designated "Common Stock" and have a par value of $0.0001 per share.

At the time this Second Certificate of Amendment of the Certificate of Incorporation (the "Amended Certificate") shall become effective, every two (2) shares of Common Stock issued and outstanding at such time shall be, and hereby is, combined, converted, changed and reconstituted into one (1) fully paid and non-assessable share of Common Stock (after aggregating all shares of Common Stock held by each holder), rounded down to the nearest whole share (the "Reverse Split"). Each outstanding stock certificate of the Corporation which, immediately prior to the time this Amended Certificate shall become effective, represented one (1) or more shares of Common Stock shall thereafter be deemed to represent the appropriate number of shares of Common Stock taking into account the Reverse Split until such old stock certificate is exchanged for a new stock certificate reflecting the appropriate number of shares resulting from the Reverse Split. All references in this Amended Certificate, including all share numbers and prices herein, reflect the Reverse Split."

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Incorporation to be signed by its Chief Executive Officer this 29th day of April, 2024.

SILVACO GROUP, INC.

By: /s/ Babak Taheri

Babak Taheri, Chief Executive Officer

AMENDED AND RESTATED

CERTIFICATE OF INCORPORATION OF

SILVACO GROUP, INC.

Silvaco Group, Inc., a corporation organized and existing under the laws of the State of Delaware, hereby certifies as follows:

FIRST: The name of the corporation is Silvaco Group, Inc.

SECOND: The original certificate of incorporation of the corporation was filed with the Secretary of State of the State of Delaware on November 18, 2009 and most recently amended and restated pursuant to an Amended and Restated Certificate of Incorporation filed with the Secretary of State of the State of Delaware on November 18, 2013, as amended by the Certificate of Amendment to the Amended and Restated Certificate of Incorporation filed with the Secretary of State of the State of Delaware on April 29, 2024 (as so amended, the "**Existing Certificate**").

THIRD: Pursuant to Sections 242 and 245 of the General Corporation Law of the State of Delaware, this Amended and Restated Certificate of Incorporation restates, integrates, and further amends the provisions of the Existing Certificate.

FOURTH: The Existing Certificate shall be amended and restated to read in full as follows:

ARTICLE I

The name of the corporation is Silvaco Group, Inc. (the "**Corporation**").

ARTICLE II

The registered agent and the address of the registered office in the State of Delaware are:

Corporation Service Company
251 Little Falls Drive
Wilmington, Delaware 19808
County of New Castle

ARTICLE III

The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the Delaware General Corporation Law (the "**DGCL**").

ARTICLE IV

A. Classes of Stock. The total number of shares of all classes of capital stock that the Corporation shall have authority to issue is FIVE HUNDRED AND TEN MILLION (510,000,000), of which (i) FIVE HUNDRED MILLION (500,000,000) shares shall be Common Stock, par value of $0.0001 per share (the "**Common Stock**"), and (ii) TEN MILLION (10,000,000) shares shall be Preferred Stock, $0.0001 par value per share (the "**Preferred Stock**"). The number of authorized shares of Common Stock or Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the then-outstanding shares of Common Stock, voting together as a single class, without the vote of the holders of Preferred Stock, unless a separate, additional vote of the holders of Preferred Stock, or of any series thereof, is expressly required pursuant to the Preferred Stock Designation (as defined below) established by the board of directors of the Corporation (the "**Board**").

B. Preferred Stock. The Preferred Stock may be issued from time to time in one or more series, as determined by the Board. The Board is expressly authorized to provide for the issue, in one or more series, of all or any of the remaining shares of Preferred Stock and, in the resolution or resolutions providing for such issue (each, a "**Preferred Stock Designation**"), to establish for each such series the number of its shares, the voting powers, full or limited, of the shares of such series, or that such shares shall have no voting powers, and the designations, preferences, and relative participating, optional, or other special rights of the shares of such series, and the qualifications, limitations, or restrictions thereof. The Board is also expressly authorized (unless forbidden in the resolution or resolutions providing for such issue) to increase or decrease (but not below the number of shares of such series then outstanding) the number of shares of any series subsequent to the issuance of shares of that series. Unless the Preferred Stock Designation otherwise provides, in case the number of shares of any such series shall be so decreased, the shares constituting such decrease shall resume the status that they had prior to the adoption of the resolution originally fixing the number of shares of such series. Unless the Board provides to the contrary in the Preferred Stock Designation and to the fullest extent permitted by law, neither the consent by series, or otherwise, of the holders of any outstanding Preferred Stock nor the consent of the holders of any outstanding Common Stock shall be required for the issuance of any new series of Preferred Stock regardless of whether the rights and preferences of the new series of Preferred Stock are senior or superior, in any way, to the outstanding series of Preferred Stock or the Common Stock.

C. Common Stock.

1. Relative Rights of Preferred Stock and Common Stock. All preferences, voting powers, relative participating, optional, or other special rights and privileges, and qualifications, limitations, or restrictions of the Common Stock are expressly made subject and subordinate to those that may be fixed with respect to any shares of the Preferred Stock.

2. Voting Rights. Except as otherwise required by law or certificate of incorporation of the Corporation, as amended from time to time (this "**Certificate of Incorporation**"), each holder of Common Stock shall have one vote in respect of each share of

stock held by such holder of record on the books of the Corporation. No holder of shares of Common Stock shall have the right to cumulative votes.

3. Dividends. Subject to the preferential rights of the Preferred Stock and except as otherwise required by law or this Certificate of Incorporation, the holders of shares of Common Stock shall be entitled to receive dividends, when, as and if declared by the Board, out of the assets of the Corporation which are by law available therefor.

ARTICLE V

In furtherance and not in limitation of the powers conferred by the laws of the State of Delaware, the following provisions are inserted for the management of the business and the conduct of the affairs of the Corporation, and for further definition, limitation, and regulation of the powers of the Corporation and of its directors and stockholders:

A. Board of Directors. The business and affairs of the Corporation shall be managed by or under the direction of the Board. In addition to the powers and authority expressly conferred upon them by statute or by this Certificate of Incorporation or the bylaws of the Corporation (the "**Bylaws**"), the directors are hereby empowered to exercise all such powers and do all such acts and things as may be exercised or done by the Corporation.

Notwithstanding the foregoing, for so long as the Stockholder Agreement remains in effect and the Pesic Family owns (directly or indirectly), in the aggregate, at least 25% of the voting power of the then outstanding shares of capital stock of the Corporation, following the IPO Date, the prior written approval or consent of the Pesic Family shall be required for the Corporation to (either directly or indirectly through an Affiliate or otherwise or through one or a series of related transactions and whether by merger, consolidation, division, operation of law, or otherwise):

1. implement any amendments to this Certificate of Incorporation or the Bylaws that would adversely affect the Pesic Family's rights thereunder;

2. (a) effect or consummate a Change of Control Event or (b) effect any other merger, consolidation, business combination, sale, or acquisition with a Person other than the Corporation and its subsidiaries, that results in changes in the rights or preferences of the holders of Equity Securities of the Corporation; and

3. effect the liquidation, dissolution, or winding up of the business operations of the Corporation.

B. Election of Directors. The directors of the Corporation need not be elected by written ballot unless the Bylaws so provide.

C. Action by Stockholders. From and after the first date (the "**Trigger Date**") on which the Pesic Family, ceases to beneficially own (directly or indirectly), in the aggregate, at least 50% of the voting power of the then outstanding shares of capital stock of the Corporation

then entitled to vote generally in the election of directors, any action required or permitted to be taken by the Corporation's stockholders may be effected only at a duly called annual or special meeting of the Corporation's stockholders and the power of stockholders to consent in writing without a meeting is specifically denied. Prior to the Trigger Date, any action which is required or permitted to be taken by the Corporation's stockholders may be taken without a meeting, without prior notice and without a vote if a consent or consents in writing, setting forth the action so taken, is signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares of the Corporation's stock entitled to vote thereon were present and voted.

D. Special Meetings of Stockholders. Special meetings of stockholders of the Corporation may be called only by the Board acting pursuant to a resolution adopted by a majority of the Whole Board or by the Chairman of the Board, the Chief Executive Officer, or the President of the Corporation. For purposes of this Certificate of Incorporation, the term "**Whole Board**" shall mean the total number of authorized directors whether or not there exist any vacancies in previously authorized directorships.

E. Annual Meeting of Stockholders. An annual meeting of stockholders, for the election of directors to succeed those whose terms expire and for the transaction of such other business as may properly come before the meeting, shall be held at such date and time as the Board (or its designees) shall fix.

F. Definitions. For purposes of this Article V, references to:

1. "Affiliate" means, with respect to any specified Person, any other Person who or which, directly or indirectly, controls, is controlled by, or is under common control with such specified Person, including, without limitation, any general partner, officer, director, or manager of such Person and any venture capital fund now or hereafter existing that is controlled by one or more general partners or managing members of, or is under common investment management with, such Person.

2. "beneficially own" has the meaning set forth in Rule 13d-3 promulgated under the Securities Exchange Act of 1934, as amended (the "Exchange Act"); "beneficially owns," "beneficially owned," and "beneficial ownership" will have corresponding meanings.

3. "Change of Control Event" means, with respect to the Corporation, (i) the closing of the sale, transfer, or other disposition of all or substantially all of the Corporation's assets or intellectual property (determined on a consolidated basis), (ii) the consummation of the merger or consolidation of the Corporation with or into another entity (except a merger or consolidation in which the holders of capital stock of the Corporation immediately prior to such merger or consolidation continue to hold at least fifty percent (50%) of the then-outstanding Voting Securities of the Corporation (or voting securities of the surviving or acquiring entity)), (iii) any Person or group of Persons within the meaning of Section 13(d)(3) of the Exchange Act becomes the beneficial owner, directly or indirectly, of fifty percent (50%) or more of the then-outstanding Voting Securities of the Corporation, or (iv) the closing of the transfer (whether by merger, consolidation, or otherwise), in one transaction or a series of related transactions, to a

Person or group of affiliated Persons (other than an underwriter of the Corporation's securities), of the Corporation's securities if, after such closing and as a result of such closing, such Person or group of affiliated Persons would hold fifty percent (50%) or more of the then-outstanding Voting Securities of the Corporation (or voting securities of the surviving or acquiring entity); provided, however, that there shall not be a Change of Control Event hereunder if (A) the sole purpose of a transaction is to change the state of incorporation of the Corporation or to create a holding company that will be owned in substantially the same proportions by the Persons who held the Corporation's securities immediately prior to such transaction or (B) one or more the Pesic Family or, in the event the Pesic Family are deemed to be a group within the meaning of Section 13(d)(3) of the Exchange Act, one or more the Pesic Family, becomes the beneficial owner of fifty percent (50%) or more of the then-outstanding Voting Securities.

4. "control" as applied to any Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of that Person, whether through the ownership of Voting Securities, by agreement, or otherwise. The terms "controls," "controlled," and "controlling" will have corresponding meanings.

5. "Equity Securities" means, with respect to any Person, any shares of capital stock or equity of (or other ownership or profit interests in) such Person, any warrants, options, or other rights for the purchase or acquisition from such Person of shares of capital stock or equity of (or other ownership or profit interests in) such Person, any securities convertible into or exchangeable for shares of capital stock or equity of (or other ownership or profit interests in) such Person, or warrants, options, or other rights for the purchase or acquisition from such Person of such shares of capital stock or equity of (or other ownership or profit interests in) such Person, restricted stock awards, restricted stock units, equity appreciation rights, phantom equity rights, profit participation, and any other ownership or profit interests issued by such Person (including partnership or member interests therein), whether voting or nonvoting, and regardless of whether any such option, award, or right is vested or whether any conditions to the exercise of the rights conferred thereby have been met.

6. "Governmental Authority" shall mean any federal, state, tribal, local, or foreign governmental or quasi-governmental entity or municipality or subdivision thereof or any authority, administrative body, department, commission, board, bureau, agency, court, tribunal or instrumentality, arbitration panel, commission, or similar dispute resolving panel or body, or any applicable self-regulatory organization.

7. "IPO Date" means , 2024.

8. "Person" means an individual, a partnership, a corporation, a limited liability company, an association, a joint stock company, a trust, a joint venture, an unincorporated organization, or other form of business organization, whether or not regarded as a legal entity under applicable law, or any Governmental Authority or any department, agency, or political subdivision thereof.

9. "Pesic Family" shall mean Katherine Ngai-Pesic, Iliya Pesic, and Yelena Pesic, and each of their respective affiliates, collectively voting together as a single entity.

10. "Stockholder Agreement" shall mean the Stockholder Agreement, dated as of April 12, 2024, by and among the Corporation and the Pesic Family (as the same may be amended, restated, supplemented, and/or otherwise modified from time to time in accordance with its terms).

11. "Voting Securities" means the Common Stock and any other securities of the Corporation entitled to vote generally in the election of directors of the Corporation.

ARTICLE VI

A. Number and Terms of Directors. Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, the number of directors shall be fixed from time to time exclusively by the Board pursuant to a resolution adopted by a majority of the Whole Board. The directors, other than those who may be elected by the holders of any series of Preferred Stock under specified circumstances, shall have a term of office that expires at each of the Corporation's annual meeting of stockholders following the effectiveness of the filing of this Certificate of Incorporation, with each director to hold office until his or her successor shall have been duly elected and qualified. At each annual meeting of stockholders, (i) directors elected to succeed those directors whose terms expire shall be elected for a term of office to expire at the next succeeding annual meeting of stockholders after their election, with each director to hold office until his or her successor shall have been duly elected and qualified; and (ii) if authorized by a resolution of the Board, directors may be elected to fill any vacancy on the Board, regardless of how such vacancy shall have been created.

B. Quorum. A majority of the Whole Board shall constitute a quorum for all purposes at any meeting of the Board, and, except as otherwise expressly required by law or by this Certificate of Incorporation, all matters shall be determined by the affirmative vote of a majority of the directors present at any meeting at which a quorum is present.

C. Board Vacancies. Subject to the rights of the holders of any series of Preferred Stock then outstanding, newly created directorships resulting from any increase in the authorized number of directors or any vacancies in the Board resulting from death, resignation, disqualification, removal from office, or other cause shall, unless otherwise required by law or determined by the Board, be filled only by a majority vote of the directors then in office, though less than a quorum (and not by stockholders), and directors so chosen shall serve for a term expiring at the annual meeting of stockholders, with each director to hold office until his or her successor shall have been duly elected and qualified. No decrease in the authorized number of directors shall shorten the term of any incumbent director.

D. Notice. Advance notice of stockholder nominations for the election of directors and of business to be brought by stockholders before any meeting of the stockholders of the Corporation shall be given in the manner provided in the Bylaws.

E. Removal. Subject to the rights of the holders of any series of Preferred Stock then outstanding, any director, or the entire Board, may be removed from office at any time, but only for cause and only by the affirmative vote of the holders of at least sixty-six and

two-thirds percent (66-2/3%) of the voting power of all of the then-outstanding shares of capital stock of the Corporation then entitled to vote at an election of directors, voting together as a single class.

ARTICLE VII

The Board is expressly authorized to adopt, amend, or repeal the Bylaws. Any adoption, amendment, or repeal of the Bylaws by the Board shall require the affirmative vote of a majority of the Whole Board. The stockholders shall also have power to adopt, amend, or repeal the Bylaws; provided, however, that, in addition to any vote of the holders of any class or series of stock of the Corporation required by law, by this Certificate of Incorporation or by any Preferred Stock Designation, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then-outstanding shares of the capital stock of the Corporation entitled to vote thereon, voting together as a single class, shall be required to adopt, amend, or repeal any provision of the Bylaws.

ARTICLE VIII

A. Limitation on Liability. To the fullest extent permitted by the DGCL, as the same exists or as may hereafter be amended (including, but not limited to Section 102(b)(7) of the DGCL), a director or officer of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director or officer, as applicable. If the DGCL hereafter is amended to authorize corporate action further eliminating or limiting the personal liability of directors or officers, then the liability of a director or officer, as applicable, of the Corporation, in addition to the limitation on personal liability provided herein, shall be eliminated or limited to the fullest extent permitted by the amended DGCL. Any repeal or modification of this paragraph by the stockholders of the Corporation shall be prospective only, and shall not adversely affect any limitation on the personal liability of a director or officer of the Corporation existing at the time of such repeal or modification.

B. Indemnification. To the fullest extent permitted by applicable law, the Corporation is authorized to provide indemnification of (and advancement of expenses to) directors, officers, employees, and agents of the Corporation (and any other persons to which DGCL permits the Corporation to provide indemnification) through Bylaw provisions, agreements with such persons, vote of stockholders or disinterested directors, or otherwise.

C. Repeal and Modification. Any repeal or modification of the foregoing provisions of this Article VIII shall not adversely affect any right or protection existing hereunder immediately prior to such repeal or modification.

ARTICLE IX

A. Exclusive Forum; Delaware Chancery Court. Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (or, if the Court of Chancery does not have jurisdiction, another state or federal court located within the State of Delaware) shall, to the fullest extent permitted by law, be the sole and

exclusive forum for (i) any derivative action or proceeding brought in the name or right of the Corporation or on behalf of the Corporation, (ii) any action or proceeding asserting a claim of breach of any fiduciary duty owed by any director, officer, employee, agent or stockholder of the Corporation to the Corporation or to the Corporation's stockholders, (iii) any action or proceeding arising or asserting a claim arising pursuant to any provision of the DGCL, this Certificate of Incorporation, any Preferred Stock Designation or the Bylaws, (iv) any action to interpret, apply, enforce or determine the validity of this Certificate of Incorporation or Bylaws, or (v) any action or proceeding asserting a claim governed by the internal affairs doctrine. If any action, the subject matter of which is within the scope of this Section, is filed in a court other than a court located within the State of Delaware (a "**Foreign Action**") in the name of any stockholder, that stockholder shall be deemed to have consented to: (x) the personal jurisdiction of the state and federal courts located within the State of Delaware in connection with any action brought in any such court to enforce this Section (an "**Enforcement Action**"), and (y) having service of process made upon such stockholder in any such Enforcement Action by service upon such stockholder's counsel in the Foreign Action as agent for such stockholder, in each case, to the fullest extent permitted by law. Any person or entity purchasing or otherwise acquiring any interest in any security of the Corporation shall be deemed to have notice of and consented to the provisions of this Section.

B. Exclusive Forum; Federal District Courts. Unless the Corporation consents in writing to the selection of an alternative forum, the federal district courts of the United States shall, to the fullest extent permitted by law, be the sole and exclusive forum for the resolution of any complaint asserting a cause of action under the Securities Act of 1933. Any person or entity purchasing or otherwise acquiring any interest in any security of the Corporation shall be deemed to have notice of and consented to the provisions of this Section.

C. Equitable Relief. Failure to enforce the provisions contained in this Article IX would cause the Corporation irreparable harm, and the Corporation shall be entitled to equitable relief, including injunctive relief and specific performance, to enforce the foregoing provisions.

ARTICLE X

Notwithstanding any other provision of this Certificate of Incorporation or any provision of law that might otherwise permit a lesser vote or no vote, but in addition to any vote of the holders of any class or series of the stock of this Corporation required by law, by this Certificate of Incorporation or by any Preferred Stock Designation, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then-outstanding shares of the capital stock of the Corporation entitled to vote thereon, voting together as a single class, shall be required to amend in any respect or repeal this Article X or any of Articles V, VI, VII, VIII, or IX.

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IN WITNESS WHEREOF, the Corporation has caused this Certificate of Incorporation to be signed by its Chief Executive Officer this day of , 2024.

SILVACO GROUP, INC.

By: _____

Babak Taheri, Chief Executive Officer

AMENDED AND RESTATED

B Y L A W S

OF

SILVACO GROUP, INC.

(a Delaware corporation)

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AMENDED AND RESTATED

B Y L A W S

OF

SILVACO GROUP, INC.

(a Delaware corporation)

ARTICLE 1

Offices

1.1 Registered Office. The registered office of Silvaco Group, Inc. shall be set forth in the certificate of incorporation of the corporation.

1.2 Other Offices. The corporation may also have offices at such other places, either within or without the State of Delaware, as the board of directors of the corporation (the "***Board of Directors***") may from time to time designate, or as the business of the corporation may require.

ARTICLE 2

Meeting of Stockholders

2.1 Place of Meeting. Meetings of stockholders may be held at such place, either within or without the State of Delaware, as may be designated by or in the manner provided in these bylaws, or, if not so designated, at the principal executive offices of the corporation. The Board of Directors may, in its sole discretion, (a) determine that a meeting of stockholders shall not be held at any place, but may instead be held solely by means of remote communication, or (b) permit participation by stockholders at such meeting by means of remote communication as authorized by Section 211(a)(2) of the Delaware General Corporation Law (the "***DGCL***").

2.2 Annual Meeting.

(a) Annual meetings of stockholders shall be held each year on such date and at such time as shall be designated from time to time by or in the manner determined by the Board of Directors and stated in the notice of the meeting. Except as otherwise provided in the certificate of incorporation of the corporation, at each such annual meeting, the stockholders shall elect the directors to hold office until the succeeding annual meeting of stockholders. The stockholders shall also transact such other business as may properly be brought before the meeting. Except as otherwise restricted by the certificate of incorporation of the corporation or applicable law, the Board of Directors may postpone, reschedule or cancel any annual meeting of stockholders.

2.3 Advance Notice of Business to be Brought Before a Meeting.

(a) At an annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before the annual meeting, business must be (i) specified in the notice of meeting (or any supplement thereto) given by or at the direction of the Board of Directors, (ii) otherwise properly brought before the meeting by or at the direction of the Board of Directors, or (iii) otherwise properly brought before the meeting by a stockholder of record. A motion related to business proposed to be brought before any stockholders' meeting may be made by any stockholder entitled to vote if the business proposed is otherwise proper to be brought before the meeting.

(b) Without qualification, for business to be properly brought before an annual meeting by a stockholder, the stockholder must (i) provide Timely Notice (as defined below) thereof in writing and in proper form to the Secretary of the corporation (even if such matter is already the subject of any notice to the stockholders or Public Disclosure from the Board of Directors) and (ii) provide any updates or supplements to such notice at the time and in the forms required by this Section 2.3. To be timely, the stockholder's notice must be delivered to, or mailed and received at, the principal executive offices of the corporation not more than one hundred twenty (120) days nor less than ninety (90) days in advance of the anniversary of the date of the corporation's proxy statement provided in connection with the previous year's annual meeting of stockholders (which anniversary date, for purposes of the corporation's first annual meeting of stockholders following the consummation of the initial public offering of the common stock of the corporation (the "***IPO***") shall be deemed to be May 15, 2024); *provided, however*, that in the event that no annual meeting was held in the previous year or the annual meeting is called for a date that is more than thirty (30) days before or after the anniversary date of the previous year's annual meeting, notice by the stockholder must be received by the Secretary of the corporation not later than the close of business on the later of (x) the ninetieth (90th) day prior to such annual meeting and (y) the tenth (10th) day following the day on which public announcement of the date of such meeting is first made (such notice within such time periods, "***Timely Notice***"). For the purposes of these bylaws, "***public announcement***" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or a comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission. In no event shall the public announcement of an adjournment or postponement of an annual meeting commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above.

(c) To be in proper form for purposes of this Section 2.3, a stockholder's notice to the Secretary of the corporation shall set forth:

(i) As to each Proposing Person (as defined below), (1) the name and address of such Proposing Person (including, if applicable, the name and address that appears on the corporation's books and records); and (2) the number of shares of each class or series of stock of the corporation that are, directly or indirectly, owned of record or beneficially owned (within the meaning of Rule 13d-3 under the Securities Exchange Act of 1934 (the "***Exchange Act***")) by such Proposing Person, except that such

Proposing Person shall in all events be deemed to beneficially own any shares of any class or series of stock of the corporation as to which such Proposing Person has a right to acquire beneficial ownership at any time in the future (the disclosures to be made pursuant to the foregoing clauses (1) and (2) are referred to as "***Stockholder Information***");

(ii) As to each Proposing Person, (1) the full notional amount of any securities that, directly or indirectly, underlie any "***derivative security***" (as such term is defined in Rule 16a-1(c) under the Exchange Act) that constitutes a "***call equivalent position***" (as such term is defined in Rule 16a-1(b) under the Exchange Act) ("***Synthetic Equity Position***") and that is, directly or indirectly, held or maintained by such Proposing Person with respect to any shares of any class or series of stock of the corporation; *provided* that, for the purposes of the definition of "Synthetic Equity Position," the term "derivative security" shall also include any security or instrument that would not otherwise constitute a "derivative security" as a result of any feature that would make any conversion, exercise or similar right or privilege of such security or instrument determinable only at some future date or upon the happening of a future occurrence, in which case the determination of the amount of securities into which such security or instrument would be convertible or exercisable shall be made assuming that such security or instrument is immediately convertible or exercisable at the time of such determination; and, *provided*, *further*, that any Proposing Person satisfying the requirements of Rule 13d-1(b)(1) under the Exchange Act (other than a Proposing Person that so satisfies Rule 13d-1(b)(1) under the Exchange Act solely by reason of Rule 13d-1(b)(1)(ii)(E)) shall not be deemed to hold or maintain the notional amount of any securities that underlie a Synthetic Equity Position held by such Proposing Person as a hedge with respect to a bona fide derivatives trade or position of such Proposing Person arising in the ordinary course of such Proposing Person's business as a derivatives dealer, (2) any rights to dividends on the shares of any class or series of stock of the corporation owned beneficially by such Proposing Person that are separated or separable from the underlying shares of the corporation, (3) any material pending or threatened legal proceeding in which such Proposing Person is a party or material participant involving the corporation or any of its officers or directors, or any affiliate of the corporation, (4) any other material relationship between such Proposing Person, on the one hand, and the corporation or any affiliate of the corporation, on the other hand, (5) any direct or indirect material interest in any material contract or agreement of such Proposing Person with the corporation or any affiliate of the corporation (including, in any such case, any employment agreement, collective bargaining agreement or consulting agreement), (6) a representation that such Proposing Person intends or is part of a group which intends to deliver a proxy statement or form of proxy to holders of at least the percentage of the corporation's outstanding capital stock required to approve or adopt the proposal or otherwise solicit proxies from stockholders in support of such proposal and (7) any other information relating to such Proposing Person that would be required to be disclosed in a proxy statement or other filing required to be made in connection with solicitations of proxies or consents by such Proposing Person in support of the business proposed to be brought before the meeting pursuant to Section 14(a) of the Exchange Act (the disclosures to be made pursuant to the

foregoing clauses (1) through (7) are referred to as "***Disclosable Interests***"); *provided*, *however*, that Disclosable Interests shall not include any such disclosures with respect to the ordinary course business activities of any broker, dealer, commercial bank, trust company or other nominee who is a Proposing Person solely as a result of being the stockholder directed to prepare and submit the notice required by these bylaws on behalf of a beneficial owner; and

(iii) As to each item of business that the stockholder proposes to bring before the annual meeting, (1) a brief description of the business desired to be brought before the annual meeting, the reasons for conducting such business at the annual meeting and any substantial interest (within the meaning of Item 5 of Schedule 14A under the Exchange Act) in such business of each Proposing Person, (2) the text of the proposal or business (including the text of any resolutions proposed for consideration and in the event that such business includes a proposal to amend the bylaws, the language of the proposed amendment), (3) a reasonably detailed description of all agreements, arrangements and understandings (x) between or among any of the Proposing Persons or (y) between or among any Proposing Person and any other record or beneficial holder(s) or person(s) who have a right to acquire beneficial ownership at any time in the future of the shares of any class or series of stock of the corporation or other person or entity (including the names of such other holder(s), person(s) or entity(ies)) in connection with the proposal of such business by such stockholder and (4) any other information relating to such item of business that would be required to be disclosed in a proxy statement or other filing required to be made in connection with solicitations of proxies in support of the business proposed to be brought before the meeting pursuant to Section 14(a) of the Exchange Act; *provided*, *however*, that the disclosures required by this Section 2.3(c) shall not include any disclosures with respect to any broker, dealer, commercial bank, trust company or other nominee who is a Proposing Person solely as a result of being the stockholder directed to prepare and submit the notice required by these bylaws on behalf of a beneficial owner.

(d) For purposes of this Section 2.3, the term "***Proposing Person***" shall mean (i) the stockholder providing the notice of business proposed to be brought before an annual meeting, (ii) the beneficial owner or beneficial owners, if different, on whose behalf the notice of the business proposed to be brought before the annual meeting is made, (iii) any participant (as defined in paragraphs (a)(ii)-(vi) of Instruction 3 to Item 4 of Schedule 14A) with such stockholder in such solicitation and (iv) any affiliates of such persons in (i) through (iii).

(e) A Proposing Person shall update and supplement its notice to the corporation of its intent to propose business at an annual meeting, if necessary, so that the information provided or required to be provided in such notice pursuant to this Section 2.3 shall be true and correct as of the record date for stockholders entitled to vote at the meeting and as of the date that is ten (10) business days prior to the later of the meeting or any adjournment or postponement thereof, and such update and supplement shall be delivered to, or mailed and received by, the Secretary at the principal executive offices of the corporation (i) not later than five (5) business days after the record date for stockholders entitled to vote at the meeting (in the case of the update and

supplement required to be made as of such record date), and (ii) not later than eight (8) business days prior to the later of the date for the meeting or, if practicable, any adjournment or postponement thereof (and, if not practicable, on the first practicable date prior to the date to which the meeting has been adjourned or postponed) (in the case of the update and supplement required to be made as of ten (10) business days prior to the later of the meeting or any adjournment or postponement thereof). For the avoidance of doubt, the obligation to update and supplement as set forth in this paragraph or any other Section of these bylaws shall not limit the corporation's rights with respect to any deficiencies in any notice provided by a stockholder, extend any applicable deadlines hereunder or enable or be deemed to permit a stockholder who has previously submitted notice hereunder to amend or update any proposal or to submit any new proposal, including by changing or adding matters, business or resolutions proposed to be brought before a meeting of the stockholders.

(f) Notwithstanding anything in these bylaws to the contrary, no business shall be conducted at an annual meeting that is not properly brought before the meeting in accordance with this Section 2.3. The presiding person of the meeting shall, if the facts warrant, determine that the business was not properly brought before the meeting in accordance with this Section 2.3, and if he or she should so determine, he or she shall so declare at the meeting and any such business not properly brought before the meeting shall not be transacted.

(g) This Section 2.3 is expressly intended to apply to any business proposed to be brought before an annual meeting of stockholders other than any proposal made in accordance with Rule 14a-8 under the Exchange Act and included in the corporation's proxy statement. In addition to the requirements of this Section 2.3 with respect to any business proposed to be brought before an annual meeting, each Proposing Person shall comply with all applicable requirements of the Exchange Act with respect to any such business. Nothing in this Section 2.3 shall be deemed to affect the rights of stockholders to request inclusion of proposals in the corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act.

2.4 Advance Notice of Nominations for Election of Directors at a Meeting.

(a) Subject to the rights, if any, of holders of capital stock to vote separately to elect directors, nominations of any person for election to the Board of Directors at an annual meeting or at a special meeting (but, in the case of a special meeting, only if the election of directors is a matter specified in the notice of meeting given by or at the direction of the person calling such special meeting) may be made at such meeting only (i) by or at the direction of the Board of Directors, including by any committee or persons authorized to do so by the Board of Directors or these bylaws, or (ii) by a stockholder present in person who (A) was a stockholder of record of the corporation (and with respect to any beneficial owner, if different, on whose behalf such nomination is proposed to be made, only if such beneficial owner was the beneficial owner of shares of the corporation) both at the time of giving the notice provided for in Section 2.4(b) and at the time of the meeting, (B) is entitled to vote at the meeting and (C) has complied with this Section 2.4 and Section 2.5 as to such notice and nomination. The foregoing clause (ii) shall be the exclusive means for a stockholder to make any nomination of a person or persons for election to the Board of Directors at any annual meeting or special meeting of stockholders.

(b) Without qualification, for a stockholder to make any nomination of a person or persons for election to the Board of Directors at an annual meeting or, subject to the limitations set forth in these bylaws, at a special meeting of the stockholders, the stockholder must (i) provide Timely Notice (as defined in Section 2.3(b) of these bylaws) thereof in writing and in proper form to the Secretary of the corporation (even if such nomination is already the subject of any notice to the stockholders or Public Disclosure from the Board of Directors); (ii) have acted in accordance with the representations set forth in the Solicitation Statement required by these bylaws; (iii) provide the information, agreements and questionnaires with respect to such stockholder and its candidate for nomination as required to be set forth by this Section 2.4 and Section 2.5; and (iv) provide any updates or supplements to such notice at the times and in the forms required by this Section 2.4 and Section 2.5. The number of nominees a stockholder may nominate for election at the annual meeting (or in the case of a stockholder giving the notice on behalf of a beneficial owner, the number of nominees a stockholder may nominate for election at the annual meeting on behalf of such beneficial owner) shall not exceed the number of directors to be elected at such annual meeting. Notwithstanding anything herein to the contrary, in the event that the number of directors to be elected to the Board of Directors is increased and there has been no public announcement naming all of the nominees for director or indicating the increase in the size of the Board of Directors made by the corporation at least ten (10) days before the last day a Nominating Person may deliver Timely Notice, a Nominating Person's notice required by this bylaw shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be received by the Secretary at the principal executive offices of the corporation not later than the close of business on the tenth (10^{th}) day following the day on which such public announcement is first made by the corporation.

(c) In no event shall any adjournment or postponement of an annual meeting or the announcement thereof commence a new time period for the giving of a stockholder's notice as described above.

(d) To be in proper form for purposes of this Section 2.4, a stockholder's notice to the Secretary shall set forth:

(i) As to each Nominating Person (as defined below), the Stockholder Information (as defined in Section 2.3(c)(i), except that for purposes of this Section 2.4, the term "Nominating Person" shall be substituted for the term "Proposing Person" in all places it appears in Section 2.3(c)(i));

(ii) As to each Nominating Person, any Disclosable Interests (as defined in Section 2.3(c)(ii), except that for purposes of this Section 2.4, the term "Nominating Person" shall be substituted for the term "Proposing Person" in all places it appears in Section 2.3(c)(ii), and the disclosure with respect to the business to be brought before the meeting in Section 2.3(c)(ii) shall be made with respect to nomination of each person for election as a director at the meeting) and a statement whether or not each such Nominating Person will deliver a proxy statement and form of proxy to holders of at least sixty-seven percent (67%) of the voting power of the shares entitled to vote on the

election of directors and file a definitive proxy statement with the U.S. Securities and Exchange Commission in accordance with the requirements of the Exchange Act (such statement, a "***Solicitation Statement***"); and

(iii) As to each candidate whom a Nominating Person proposes to nominate for election as a director, (A) all information with respect to such candidate for nomination that would be required to be set forth in a stockholder's notice pursuant to this Section 2.4 and Section 2.5 if such candidate for nomination were a Nominating Person, (B) all information relating to such candidate for nomination that is required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for election of directors in a contested election pursuant to Section 14(a) under the Exchange Act (including such candidate's written consent to being named in the proxy statement as a nominee and to serving as a director if elected), (C) a description of any direct or indirect material interest in any material contract or agreement between or among any Nominating Person, on the one hand, and each candidate for nomination or his or her respective associates or any other participants in such solicitation, on the other hand, including, without limitation, all information that would be required to be disclosed pursuant to Item 404 under Regulation S-K if such Nominating Person were the "registrant" for purposes of such rule and the candidate for nomination were a director or executive officer of such registrant , and (D) a completed and signed questionnaire, representation and agreement as provided in Section 2.5(a).

(e) For purposes of this Section 2.4, the term "***Nominating Person***" shall mean (i) the stockholder providing the notice of the nomination proposed to be made at the meeting, (ii) the beneficial owner or beneficial owners, if different, on whose behalf the notice of the nomination proposed to be made at the meeting is made and (iii) any other participant in such solicitation.

(f) A stockholder providing notice of any nomination proposed to be made at a meeting shall further update and supplement such notice, if necessary, so that the information provided or required to be provided in such notice pursuant to this Section 2.4 shall be true and correct as of the record date for stockholders entitled to vote at the meeting and as of the date that is ten (10) business days prior to the later of the meeting or any adjournment or postponement thereof, and such update and supplement shall be delivered to, or mailed and received by, the Secretary at the principal executive offices of the corporation (i) not later than five (5) business days after the record date for stockholders entitled to vote at the meeting (in the case of the update and supplement required to be made as of such record date), and (ii) not later than eight (8) business days prior to the later of the date for the meeting or, if practicable, any adjournment or postponement thereof (and, if not practicable, on the first practicable date prior to the date to which the meeting has been adjourned or postponed) (in the case of the update and supplement required to be made as of ten (10) business days prior to the later of the meeting or any adjournment or postponement thereof). For the avoidance of doubt, the obligation to update and supplement as set forth in this paragraph or any other Section of these bylaws shall not limit the corporation's rights with respect to any deficiencies in any notice provided by a stockholder, extend any applicable deadlines hereunder or enable or be deemed to permit a stockholder who

has previously submitted notice hereunder to amend or update any nomination or to submit any new nomination.

(g) In addition to the requirements of this Section 2.4 with respect to any nomination proposed to be made at a meeting, each Nominating Person shall comply with all applicable requirements of the Exchange Act with respect to any such nominations.

2.5 Additional Requirements for Valid Nomination of Candidates to Serve as Directors and, if Elected, to be Seated as Directors.

(a) To be eligible to be a candidate for election as a director of the corporation at an annual meeting, a candidate must be nominated in the manner prescribed in Section 2.4 and the candidate for nomination, whether nominated by the Board of Directors or by a stockholder of record, must have previously delivered within ten (10) calendar days of receipt of the questionnaire referred to in clause (i) of this sentence, to the Secretary at the principal executive offices of the corporation, (i) a completed written questionnaire (in the form provided by the corporation upon written request therefor) with respect to the background, qualifications, stock ownership and independence of such proposed nominee and (ii) a written representation and agreement (in the form provided by the corporation upon written request therefor) that such candidate for nomination (A) is not and, if elected as a director during his or her term of office, will not become a party to (1) any agreement, arrangement or understanding with, and has not given and will not give any commitment or assurance to, any person or entity as to how such proposed nominee, if elected as a director of the corporation, will act or vote on any issue or question (a "***Voting Commitment***"), or (2) any Voting Commitment that could limit or interfere with such proposed nominee's ability to comply, if elected as a director of the corporation, with such proposed nominee's fiduciary duties under applicable law, (B) is not, and will not become a party to, any agreement, arrangement or understanding with any person or entity other than the corporation with respect to any direct or indirect compensation or reimbursement for service as a director of the corporation that has not been disclosed therein, and (C) if elected as a director of the corporation, will comply with all applicable corporate governance, conflict of interest, confidentiality, stock ownership and trading and other policies and guidelines of the corporation applicable to directors and in effect during such person's term in office as a director (and, if requested by any candidate for nomination, the Secretary of the corporation shall provide to such candidate for nomination all such policies and guidelines then in effect).

(b) The Board of Directors may also require any proposed candidate for nomination as a director to furnish such other information as may reasonably be requested by the Board of Directors in writing prior to the meeting of stockholders at which such candidate's nomination is to be acted upon in order for the Board of Directors to determine the eligibility of such candidate for nomination to be an independent director of the corporation.

(c) A candidate for nomination as a director shall further update and supplement the materials delivered pursuant to this Section 2.5, if necessary, so that the information provided or required to be provided pursuant to this Section 2.5 shall be true and correct as of the record date for stockholders entitled to vote at the meeting and as of the date that is ten (10) business days prior to the later of the meeting or any adjournment or postponement thereof, and such update

and supplement shall be delivered to, or mailed and received by, the Secretary at the principal executive offices of the corporation (or any other office specified by the corporation in any public announcement) (i) not later than five (5) business days after the record date for stockholders entitled to vote at the meeting (in the case of the update and supplement required to be made as of such record date), and (ii) not later than eight (8) business days prior to the later of the date for the meeting or, if practicable, any adjournment or postponement thereof (and, if not practicable, on the first practicable date prior to the date to which the meeting has been adjourned or postponed) (in the case of the update and supplement required to be made as of ten (10) business days prior to the later of the meeting or any adjournment or postponement thereof). For the avoidance of doubt, the obligation to update and supplement as set forth in this paragraph or any other Section of these bylaws shall not limit the corporation's rights with respect to any deficiencies in any notice provided by a stockholder or information provided by a candidate, extend any applicable deadlines hereunder or enable or be deemed to permit a stockholder who has previously submitted notice hereunder to amend or update any nomination or to submit any new nomination.

(d) In addition to the requirements of this Section 2.5 with respect to any nomination proposed to be made at a meeting, each Proposing Person shall comply with all applicable requirements of the Exchange Act with respect to any such nominations.

(i) No candidate shall be eligible for nomination as a director of the corporation unless such candidate for nomination and the Nominating Person seeking to place such candidate's name in nomination has complied with Section 2.4 and this Section 2.5, as applicable. For any nomination to be properly brought before a meeting, the information provided by any Nominating Person or candidate, including the information contained in any questionnaire, shall not contain any false or misleading information or omit any material information that has been requested. In the event of a failure to meet the requirements of Section 2.4 and Section 2.5, (1) the corporation may omit or, to the extent feasible, remove the information concerning the nomination from its proxy materials and/or otherwise communicate to its stockholders that the nominee is not eligible for election at the annual meeting, (2) the corporation shall not be required to include in its proxy materials any successor or replacement nominee proposed by the party and (3) the presiding person of the meeting shall declare such nomination to be invalid and such nomination shall be disregarded notwithstanding that proxies in respect of such vote may have been received by the corporation. The presiding person at the meeting shall, if the facts warrant, determine that a nomination was not properly made in accordance with Section 2.4 or this Section 2.5, and if he or she should so determine, he or she shall so declare such determination to the meeting, the defective nomination shall be disregarded and any ballots cast for the candidate in question (but in the case of any form of ballot listing other qualified nominees, only the votes cast for the nominee in question) shall be void and of no force or effect.

(e) Notwithstanding anything in these bylaws to the contrary, no candidate for nomination by a Nominating Person shall be eligible to be seated as a director of the corporation unless nominated and elected in accordance with Section 2.4 and this Section 2.5.

2.6 Special Meetings. Special meetings of the stockholders of the corporation may be called only by the Chairman of the Board of Directors, the Chief Executive Officer or the President of the corporation, or by a resolution duly adopted by the affirmative vote of a majority of the Board of Directors. Such request shall state the purpose or purposes of the proposed meeting. Business transacted at any special meeting shall be limited to the matters relating to the purpose or purposes stated in the notice of meeting. Except as otherwise restricted by the certificate of incorporation of the corporation or applicable law, the Board of Directors may postpone, reschedule or cancel any special meeting of stockholders.

2.7 Notice of Meetings. Except as otherwise provided by law, the certificate of incorporation of the corporation, or these bylaws, written or electronic notice of each annual or special meeting of stockholders stating the place, if any, date, and time of the meeting, the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting, the record date for determining the stockholders entitled to vote at the meeting, if such date is different from the record date for determining stockholders entitled to notice of the meeting, and, in the case of a special meeting, the purpose or purposes for which such special meeting is called, shall be given in accordance with Section 232 of the DGCL not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting as of the record date for determining the stockholders entitled to notice of the meeting.

2.8 List of Stockholders. The corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, *provided, however*, if the record date for determining the stockholders entitled to vote is less than ten (10) days before the meeting date, the list shall reflect the stockholders entitled to vote as of the tenth (10^{th}) day before the meeting date, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, for a period of at least ten (10) days prior to the meeting: (a) on a reasonably accessible electronic network, *provided* that the information required to gain access to such list is provided with the notice of the meeting, or (b) during ordinary business hours, at the principal place of business of the corporation.

2.9 Organization and Conduct of Business. Such person as the Board of Directors may have designated or, in the absence of such a person, the Chairman of the Board of Directors or, in his or her absence, the Chief Executive Officer or President of the corporation or, in their absence, such person as may be chosen by the holders of a majority of the voting power of the shares entitled to vote who are present, in person or by proxy, shall call to order any meeting of the stockholders and act as chairman of the meeting. The Secretary or, in the Secretary's absence or inability to act, the person whom the chair of the meeting shall appoint secretary of the meeting, shall act as secretary of the meeting and keep the minutes thereof.

The chairman of any meeting of stockholders shall determine the order of business and the procedure at the meeting, including such regulation of the manner of voting and the conduct of discussion as seems to him or her in order.

2.10 Quorum. Except where otherwise required by law, the rules of any stock exchange upon which the corporation's securities are listed, the certificate of incorporation of the corporation or these bylaws, the holders of a majority of the voting power of the capital stock issued and outstanding and entitled to vote, present in person or represented by proxy, shall constitute a quorum for the transaction of business at all meetings of the stockholders.

2.11 Adjournments. The chairperson of the meeting, the stockholders (by the affirmative vote of a majority of the voting power of the shares of capital stock present in person or represented by proxy at the meeting and entitled to vote, though less than a quorum) or any officer entitled to preside at such meeting, shall be entitled to adjourn such meeting from time to time, without notice other than announcement at the meeting. When a meeting is adjourned to another place, date or time, notice need not be given of the adjourned meeting if the place, if any, date and time thereof and the means of remote communication, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting are (i) announced at the meeting at which the adjournment is taken, (ii) displayed, during the time scheduled for the meeting, on the same electronic network used to enable stockholder and proxy holders to participate in the meeting by means of remote communication, or (iii) set forth in the notice of meeting given in accordance with Section 2.7 of these bylaws; *provided, however*, that if the adjournment is for more than thirty (30) days, notice of the place, if any, date, time and means of remote communications, if any, of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting. If after the adjournment a new record date for stockholders entitled to vote is fixed for the adjourned meeting, the Board of Directors shall fix a new record date for notice of such adjourned meeting in accordance with Section 2.14 of these bylaws and shall give notice of the adjourned meeting to each stockholder of record entitled to vote at such adjourned meeting as of the record date fixed for notice of such adjourned meeting. At any adjourned meeting, any business may be transacted that might have been transacted at the original meeting.

2.12 Voting Rights. Unless otherwise required by the DGCL or the certificate of incorporation of the corporation, each stockholder shall at every meeting of the stockholders be entitled to one vote for each share of the capital stock having voting power held by such stockholder. No holder of shares of the corporation's common stock shall have the right to cumulative votes.

2.13 Majority Vote. When a quorum is present at any meeting, the vote of the holders of a majority of the votes cast affirmatively or negatively shall decide any question brought before such meeting, unless the question is one upon which by express provision of an applicable statute or of the certificate of incorporation of the corporation or of these bylaws, including Section 3.2 hereof, or of the rules of any a stock exchange upon which the corporation's securities are listed, a different vote is required, in which case such express provision shall govern and control the decision of such question.

2.14 Record Date for Stockholder Notice and Voting. For purposes of determining the stockholders entitled (i) to notice of, or to vote at, any meeting of stockholders or any adjournment thereof, (ii) to receive payment of any dividend or other distribution or allotment of

any rights, or (iii) to exercise any right in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which shall not (a) precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, (b) be more than sixty (60) days nor less than ten (10) days before the date of any such meeting, or (c) be more than sixty (60) days before any other action to which the record date relates. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided, however*, that the Board of Directors may fix a new record date for determination of stockholders entitled to vote at the adjourned meeting, and in such case shall also fix as the record date for stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for determination of stockholders entitled to vote at the adjourned meeting in accordance with the foregoing provisions. If the Board of Directors does not fix a record date as described in the first two sentences of this paragraph, (a) the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the business day next preceding the day on which notice is given or, if notice is waived, at the close of business on the business day next preceding the day on which the meeting is held, and (b) the record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating to such purpose.

2.15 Proxies. Each stockholder entitled to vote at a meeting of stockholders may authorize another person or persons to act for such stockholder by proxy, but no such proxy shall be voted or acted upon after three (3) years from its date, unless the proxy provides for a longer period. All proxies must be filed with the Secretary of the corporation at the beginning of each meeting in order to be counted in any vote at the meeting. The authorization of a person to act as proxy may be documented, signed, and delivered in accordance with Section 116 of the DGCL *provided* that such authorization shall set forth, or be delivered with, information enabling the corporation to determine the identity of the stockholder granting such authorization. A proxy shall be irrevocable if it states that it is irrevocable and if, and only as long as, it is coupled with an interest sufficient in law to support an irrevocable power. A stockholder may revoke any proxy that is not irrevocable by attending the meeting and voting in person or by delivering to the Secretary a revocation of the proxy or a new proxy bearing a later date.

2.16 Inspectors of Election. The corporation shall, in advance of any meeting of stockholders, appoint one or more inspectors of election to act at the meeting and make a written report thereof. The corporation may designate one or more persons to act as alternate inspectors to replace any inspector who fails to act. If no inspector or alternate is able to act at a meeting of stockholders, the person presiding at the meeting shall appoint one or more inspectors to act at the meeting. Each inspector, before entering upon the discharge of his or her duties, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of his or her ability.

2.17 No Action Without a Meeting. No action shall be taken by the stockholders except at an annual or special meeting of stockholders called and noticed in the manner required by these bylaws. The stockholders may not in any circumstance take action by written consent.

ARTICLE 3

Directors

3.1 Number, Election, Tenure and Qualifications. Subject to the rights of the holders of any series of preferred stock to elect additional directors under specified circumstances, the number of directors shall be fixed from time to time exclusively by the Board of Directors pursuant to a resolution adopted by the affirmative vote of a majority of the Board of Directors. The term of office of the directors shall expire at the corporation's first annual meeting of stockholders following the effectiveness of the filing of the certificate of incorporation of the corporation (the "***Effective Time***"). The successors of the directors whose terms expire at that meeting shall be elected for a term expiring at the 2025 annual meeting of the stockholders; at the 2025 annual meeting of the stockholders, the successors of the directors whose terms expire at that meeting shall be elected for a term expiring at the 2026 annual meeting of the stockholders; and at each annual meeting of stockholders of the corporation thereafter, the directors elected at an annual meeting of stockholders to succeed those whose terms then expire shall hold office until the next succeeding annual meeting of stockholders, and until their respective successors are elected, except in the case of the death, resignation, or removal of any director. If authorized by a resolution of the Board of Directors, directors may be elected to fill any vacancy on the Board of Directors, regardless of how such vacancy shall have been created.

3.2 Director Nominations. At each annual meeting of the stockholders, directors shall be elected by a plurality of votes cast, except as otherwise provided in this Section 3.2, and each director so elected shall hold office until such director's successor is duly elected and qualified or until such director's earlier resignation, removal, death, or incapacity.

Notwithstanding the previous sentence, to the fullest extent permitted by law, if a majority of the votes cast with respect to the election of a director are marked "against" or "withheld" in an uncontested election, the director shall promptly tender his or her irrevocable resignation for the Board of Directors' or the Nominating and Corporate Governance Committee's consideration. If such director's resignation is accepted by the Board of Directors or the Nominating and Corporate Governance Committee, then the Board of Directors or the Nominating and Corporate Governance Committee, in its sole discretion, may fill the resulting vacancy or may decrease the size of the Board of Directors.

3.3 Enlargement and Vacancies. Except as otherwise provided by the certificate of incorporation of the corporation, subject to the rights of the holders of any series of preferred stock then outstanding, newly created directorships resulting from any increase in the authorized number of directors or any vacancies in the Board of Directors resulting from death, resignation, disqualification, removal from office or other cause shall, unless otherwise required by law or determined by the Board of Directors, be filled solely by a majority vote of the directors then in office, although less than a quorum, or by the sole remaining director. If there are no directors in office, then an election of directors may be held in the manner provided by statute. Directors chosen pursuant to any of the foregoing provisions shall hold office until the next annual election and until such director's successor is duly elected and qualified or until such director's earlier resignation, removal, death or incapacity. In the event of a vacancy in the Board of Directors,

the remaining directors, except as otherwise provided by law, or by the certificate of incorporation of the corporation or these bylaws, may exercise the powers of the full Board of Directors until the vacancy is filled.

3.4 Resignation and Removal. Any director may resign at any time upon written or electronic notice to the corporation addressed to the attention of the Chief Executive Officer, the Secretary, the Chairman of the Board of Directors or the Chair of the Nominating and Corporate Governance Committee of the Board of Directors, who shall in turn notify the full Board of Directors (although failure to provide such notification to the full Board of Directors shall not impact the effectiveness of such resignation). Such resignation shall be effective upon receipt of such notice by one of the individuals designated above unless the notice specifies such resignation to be effective at some other time or upon the happening of some other event. Subject to the rights of the holders of any series of preferred stock then outstanding, any director, or the entire Board of Directors, may be removed from office at any time, but only for cause and only by the affirmative vote of the holders of at least a majority of the voting power of all of the then-outstanding shares of capital stock of the corporation then entitled to vote at an election of directors, voting together as a single class.

3.5 Powers. The business of the corporation shall be managed by or under the direction of the Board of Directors, which may exercise all such powers of the corporation and do all such lawful acts and things as are not by statute or by the certificate of incorporation of the corporation or by these bylaws directed or required to be exercised or done by the stockholders.

3.6 Chairman of the Board of Directors. The directors shall elect a Chairman of the Board of Directors and may elect a Vice Chair of the Board of Directors, each to hold such office until their successor is elected and qualified or until their earlier resignation or removal. In the absence or disability of the Chairman of the Board of Directors, the Vice Chair of the Board of Directors, if one has been elected, or another director designated by the Board of Directors, shall perform the duties and exercise the powers of the Chairman of the Board of Directors. The Chairman of the Board of Directors of the corporation may preside at all meetings of the stockholders and the Board of Directors and shall have such other duties as may be vested in the Chairman of the Board of Directors by the Board of Directors. The Vice Chair of the Board of Directors shall have such duties as may be vested in the Vice Chair of the Board of Directors by the Board of Directors.

3.7 Place of Meetings. The Board of Directors may hold meetings, both regular and special, either within or without the State of Delaware.

3.8 Regular Meetings. Regular meetings of the Board of Directors may be held without notice at such time and place as may be determined from time to time by the Board of Directors; *provided, however*, that any director who is absent when such a determination is made shall be given prompt notice of such determination.

3.9 Special Meetings. Special meetings of the Board of Directors may be called by the Chairman of the Board of Directors, the Chief Executive Officer, President, or by the written request of a majority of the directors then in office. Notice of the time and place, if any, of

special meetings shall be delivered personally or by telephone to each director, or sent by first-class mail or commercial delivery service, facsimile transmission, or by electronic mail or other electronic means, charges prepaid, sent to such director's business or home address or email address, as applicable, as they appear upon the records of the corporation. In case such notice is mailed, it shall be deposited in the United States mail at least three (3) days prior to the time of holding of the meeting. In case such notice is delivered personally or by telephone or by commercial delivery service, facsimile transmission, or electronic mail or other electronic means, it shall be so delivered at least twenty-four (24) hours prior to the time of the holding of the meeting. A notice or waiver of notice of a meeting of the Board of Directors need not specify the purposes of the meeting.

3.10 Quorum, Action at Meeting, Adjournments. At all meetings of the Board of Directors, a majority of the Board of Directors, but in no case less than one third (⅓) of the Whole Board, shall constitute a quorum for the transaction of business and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the Board of Directors, except as may be otherwise specifically provided by law or by the certificate of incorporation of the corporation or these bylaws. For purposes of these bylaws, the term "***Whole Board***" shall mean the total number of authorized directors whether or not there exist any vacancies in previously authorized directorships. If a quorum shall not be present at any meeting of the Board of Directors, a majority of the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present.

3.11 Action Without Meeting. Unless otherwise restricted by the certificate of incorporation of the corporation or these bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent thereto in writing or by electronic transmission. After such action is taken, the writing or writings or electronic transmission or transmissions shall be filed with the minutes of proceedings of the Board of Directors or committee.

3.12 Telephone Meetings. Unless otherwise restricted by the certificate of incorporation of the corporation or these bylaws, any member of the Board of Directors or any committee thereof may participate in a meeting of the Board of Directors or of any committee, as the case may be, by means of conference telephone or by any form of communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

3.13 Committees. The Board of Directors may, by resolution, designate one or more committees, each committee to consist of one or more of the directors of the corporation. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members present at any meeting and not disqualified from voting, whether or not the member or members present constitute a quorum, may unanimously appoint another member of the Board of Directors to act

at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board of Directors, shall have and may exercise all of the lawfully delegated powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it. Such committee or committees shall have such name or names as may be determined from time to time by resolution adopted by the Board of Directors. Except as the Board of Directors may otherwise determine, any committee may make rules for the conduct of its business, but unless otherwise provided by the directors or in such rules, its business shall be conducted as nearly as possible in the same manner as is provided in these bylaws for the conduct of its business by the Board of Directors.

3.14 Fees and Compensation of Directors. The Board of Directors shall have the authority to fix the compensation of directors.

ARTICLE 4

Officers

4.1 Officers Designated. The officers of the corporation shall be chosen by or in the manner determined by the Board of Directors and shall be a Chief Executive Officer, a President, a Secretary and a Chief Financial Officer. The Board of Directors may also choose a Treasurer, one or more Vice Presidents, and one or more assistant Secretaries or assistant Treasurers. Any number of offices may be held by the same person, unless the certificate of incorporation of the corporation or these bylaws otherwise provide.

4.2 Election. The Board of Directors shall choose a Chief Executive Officer, a President, a Secretary and a Chief Financial Officer. Other officers may be appointed by the Board of Directors or may be appointed pursuant to a delegation of authority from the Board of Directors.

4.3 Tenure. Each officer of the corporation shall hold office until such officer's successor is appointed and qualified, unless a different term is specified at the appointment of such officer, or until such officer's earlier death, resignation, removal or incapacity. Any officer may be removed with or without cause at any time by the Board of Directors or a committee duly authorized to do so (or in the manner determined by the Board of Directors). Any vacancy occurring in any office of the corporation may be filled by or in the manner determined by the Board of Directors, at its discretion. Any officer may resign by delivering such officer's written resignation to the corporation to the attention of the Chief Executive Officer or the Secretary. Such resignation shall be effective upon receipt unless it is specified to be effective at some other time or upon the happening of some other event.

4.4 The Chief Executive Officer. Subject to such supervisory powers, if any, as may be given by the Board of Directors to the Chairman of the Board of Directors, in the absence of the Chairman of the Board of Directors, the Chief Executive Officer shall preside at all meetings of the stockholders and at all meetings of the Board of Directors, shall have general and active management of the business of the corporation and shall see that all orders and resolutions of the

Board of Directors are carried into effect. He or she shall execute bonds, mortgages and other contracts requiring a seal, under the seal of the corporation, except where required or permitted by law to be otherwise signed and executed and except where the signing and execution thereof shall be delegated by the Board of Directors to some other officer or agent of the corporation.

4.5 The President. The President shall, in the event there is no Chief Executive Officer or in the absence of the Chief Executive Officer or in the event of his or her disability, perform the duties of the Chief Executive Officer, and when so acting, shall have the powers of and be subject to all the restrictions upon the Chief Executive Officer. The President shall perform such other duties and have such other powers as may from time to time be prescribed for such person by the Board of Directors, the Chief Executive Officer, or these bylaws.

4.6 The Vice President. The Vice President, if any (or in the event there be more than one, the Vice Presidents in the order designated by the directors, or in the absence of any designation, in the order of their election), shall, in the absence of the President or in the event of his or her disability or refusal to act, perform the duties of the President, and when so acting, shall have the powers of and be subject to all the restrictions upon the President. The Vice President(s) shall perform such other duties and have such other powers as may from time to time be prescribed for such person(s) by the Board of Directors, the Chief Executive Officer, the President, or these bylaws.

4.7 The Secretary. The Secretary shall attend all meetings of the Board of Directors and the stockholders and record all votes and the proceedings of the meetings in a book to be kept for that purpose and shall perform like duties for the standing committees, when required. The Secretary shall give, or cause to be given, notice of all meetings of stockholders and special meetings of the Board of Directors, and shall perform such other duties as may from time to time be prescribed by the Board of Directors, the Chairman of the Board of Directors or the Chief Executive Officer, under whose supervision he or she shall act. The Secretary shall sign such instruments on behalf of the corporation as the Secretary may be authorized to sign by the Board of Directors or by law and shall countersign, attest and affix the corporate seal to all certificates and instruments where such countersigning or such sealing and attesting are necessary to their true and proper execution.

4.8 The Assistant Secretary. The Assistant Secretary, or if there be more than one, any Assistant Secretaries in the order designated by the Board of Directors (or in the absence of any designation, in the order of their election) shall assist the Secretary in the performance of his or her duties and, in the absence of the Secretary or in the event of his or her inability or refusal to act, perform the duties and exercise the powers of the Secretary and shall perform such other duties and have such other powers as may from time to time be prescribed by the Board of Directors.

4.9 The Chief Financial Officer. The Chief Financial Officer shall be the principal financial officer in charge of the general accounting books, accounting and cost records and forms. The Chief Financial Officer may also serve as the principal accounting officer and shall perform such other duties and have such other powers as may from time to time be prescribed by the Board of Directors or the Chief Executive Officer.

4.10 The Treasurer and Assistant Treasurers. The Treasurer (if one is appointed) shall have such duties as may be specified by the Chief Financial Officer to assist the Chief Financial Officer in the performance of his or her duties and to perform such other duties and have such other powers as may from time to time be prescribed by the Board of Directors or the Chief Executive Officer. It shall be the duty of any Assistant Treasurers to assist the Treasurer in the performance of his or her duties and to perform such other duties and have such other powers as may from time to time be prescribed by the Board of Directors or the Chief Executive Officer.

4.11 Bond. If required by the Board of Directors, any officer shall give the corporation a bond in such sum and with such surety or sureties and upon such terms and conditions as shall be satisfactory to the Board of Directors, including without limitation a bond for the faithful performance of the duties of such officer's office and for the restoration to the corporation of all books, papers, vouchers, money and other property of whatever kind in such officer's possession or under such officer's control and belonging to the corporation.

4.12 Delegation of Authority. The Board of Directors may from time to time delegate the powers or duties of any officer to any other officers or agents, notwithstanding any provision hereof.

ARTICLE 5

Notices

5.1 Delivery. Whenever, under the provisions of law, or of the certificate of incorporation of the corporation or these bylaws, written notice is required to be given to any stockholder, such notice may be given (a) by mail, addressed to such stockholder, at such person's address as it appears on the records of the corporation, with postage thereon prepaid, and such notice shall be deemed to be given at the time when the same shall be deposited in the United States mail, or (b) by nationally recognized courier service, and such notice shall be deemed to be given at the earlier of when the notice is received or left at such stockholder's address. Without limiting the manner by which notice otherwise may be given effectively to stockholders, any notice to stockholders may be given by electronic transmission in the manner provided in Section 232 of the DGCL.

5.2 Waiver of Notice. Whenever any notice is required to be given under the provisions of law or of the certificate of incorporation of the corporation or of these bylaws, a written waiver, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders, directors or members of a committee of directors need be specified in any written waiver of notice or any waiver by electronic transmission unless so required by the certificate of incorporation of the corporation or these bylaws.

ARTICLE 6

Indemnification of Directors and Officers

6.1 Right to Indemnification. Each person who was or is made a party or is threatened to be made a party to or is otherwise involved in any action, suit, or proceeding, whether civil, criminal, administrative, or investigative (hereinafter a "***proceeding***"), by reason of the fact that he or she is or was a director or an officer of the corporation or is or was serving at the request of the corporation as a director, officer or trustee of another corporation or of a partnership, joint venture, trust or other enterprise, including service with respect to an employee benefit plan (hereinafter an "***indemnitee***"), whether the basis of such proceeding is alleged action in an official capacity as a director, officer, or trustee or in any other capacity while serving as a director, officer, or trustee, shall be indemnified and held harmless by the corporation to the fullest extent permitted by Delaware law, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the corporation to provide broader indemnification rights than such law permitted the corporation to provide prior to such amendment), against all expense, liability, and loss (including attorneys' fees, judgments, fines, ERISA excise taxes or penalties, and amounts paid in settlement) reasonably incurred or suffered by such indemnitee in connection therewith; *provided, however*, that, except as provided in Section 6.3 of this Article 6 with respect to proceedings to enforce rights to indemnification, the corporation shall indemnify any such indemnitee in connection with a proceeding (or part thereof) initiated by such indemnitee only if such proceeding (or part thereof) was authorized by the Board of Directors of the corporation.

6.2 Right to Advancement of Expenses. In addition to the right to indemnification conferred in Section 6.1 of this Article 6, an indemnitee shall also have the right to be paid by the corporation the expenses (including attorney's fees) incurred in defending any such proceeding in advance of its final disposition (hereinafter an "***advancement of expenses***"); *provided, however*, that, if the DGCL requires, an advancement of expenses incurred by an indemnitee in his or her capacity as a director or officer (and not in any other capacity in which service was or is rendered by such indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the corporation of an undertaking (hereinafter an "***undertaking***"), by or on behalf of such indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal (hereinafter a "***final adjudication***") that such indemnitee is not entitled to be indemnified for such expenses under this Section 6.2 or otherwise.

6.3 Right of Indemnitee to Bring Suit. If a claim under Section 6.1 or 6.2 of this Article 6 is not paid in full by the corporation within sixty (60) days after a written claim has been received by the corporation, except in the case of a claim for an advancement of expenses, in which case the applicable period shall be twenty (20) days, the indemnitee may at any time thereafter bring suit against the corporation to recover the unpaid amount of the claim. To the fullest extent permitted by law, if successful in whole or in part in any such suit, or in a suit brought by the corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the indemnitee shall be entitled to be paid also the expense of prosecuting or

defending such suit. In (a) any suit brought by the indemnitee to enforce a right to indemnification hereunder (but not in a suit brought by the indemnitee to enforce a right to an advancement of expenses) it shall be a defense that, and (b) in any suit brought by the corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the corporation shall be entitled to recover such expenses upon a final adjudication that, the indemnitee has not met any applicable standard for indemnification set forth in the DGCL. Neither the failure of the corporation (including its directors who are not parties to such action, a committee of such directors, independent legal counsel, or its stockholders) to have made a determination prior to the commencement of such suit that indemnification of the indemnitee is proper in the circumstances because the indemnitee has met the applicable standard of conduct set forth in the DGCL, nor an actual determination by the corporation (including its directors who are not parties to such action, a committee of such directors, independent legal counsel, or its stockholders) that the indemnitee has not met such applicable standard of conduct, shall create a presumption that the indemnitee has not met the applicable standard of conduct or, in the case of such a suit brought by the indemnitee, be a defense to such suit. In any suit brought by the indemnitee to enforce a right to indemnification or to an advancement of expenses hereunder, or brought by the corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the burden of proving that the indemnitee is not entitled to be indemnified, or to such advancement of expenses, under this Article 6 or otherwise shall be on the corporation.

6.4 Non-Exclusivity of Rights. The rights to indemnification and to the advancement of expenses conferred in this Article 6 shall not be exclusive of any other right which any person may have or hereafter acquire under any statute, the corporation's certificate of incorporation, bylaws, agreement, vote of stockholders or directors, or otherwise.

6.5 Insurance. The corporation may maintain insurance, at its expense, to protect itself and any director, officer, employee, or agent of the corporation or another corporation, partnership, joint venture, trust, or other enterprise against any expense, liability, or loss, whether or not the corporation would have the power to indemnify such person against such expense, liability, or loss under the DGCL.

6.6 Indemnification of Employees and Agents of the Corporation. The corporation may, to the extent authorized from time to time by the Board of Directors, grant rights to indemnification and to the advancement of expenses to any employee or agent of the corporation to the fullest extent of the provisions of this Article with respect to the indemnification and advancement of expenses of directors and officers of the corporation.

6.7 Nature of Rights. The rights conferred upon indemnitees in this Article 6 shall be contract rights and such rights shall continue as to an indemnitee who has ceased to be a director, officer, or trustee and shall inure to the benefit of the indemnitee's heirs, executors, and administrators. Any amendment, alteration, or repeal of this Article 6 that adversely affects any right of an indemnitee or its successors shall be prospective only and shall not limit, eliminate, or impair any such right with respect to any proceeding involving any occurrence or alleged occurrence of any action or omission to act that took place prior to such amendment or repeal.

6.8 Severability. If any word, clause, provision or provisions of this Article 6 shall be held to be invalid, illegal or unenforceable for any reason whatsoever: (a) the validity, legality and enforceability of the remaining provisions of this Article 6 (including, without limitation, each portion of any Section or paragraph of this Article 6 containing any such provision held to be invalid, illegal or unenforceable, that is not itself held to be invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby; and (b) to the fullest extent possible, the provisions of this Article 6 (including, without limitation, each such portion of any Section or paragraph of this Article 6 containing any such provision held to be invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable.

ARTICLE 7

Capital Stock

7.1 Certificates for Shares. The shares of the corporation shall be (a) represented by certificates or (b) uncertificated and evidenced by a book-entry system maintained by or through the corporation's transfer agent or registrar. Certificates shall be signed by, or in the name of the corporation by, any two authorized officers of the corporation, including the Chief Executive Officer, the President, the Secretary, or the Chief Financial Officer.

Within a reasonable time after the issuance or transfer of uncertificated stock, the corporation shall send or cause to be sent to the registered owner thereof a written notice or electronic transmission containing the information required by Section 151(f) of the DGCL or a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

7.2 Signatures on Certificates. Any or all of the signatures on a certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the corporation with the same effect as if such person were such officer, transfer agent or registrar at the date of issue.

7.3 Transfer of Stock. Upon surrender to the corporation or the transfer agent of the corporation of a certificate of shares duly endorsed or accompanied by proper evidence of succession, assignation or authority to transfer, and proper evidence of compliance with other conditions to rightful transfer, it shall be the duty of the corporation to issue a new certificate to the person entitled thereto, cancel the old certificate and record the transaction upon its books. Upon receipt of proper transfer instructions and proper evidence of compliance with other conditions to rightful transfer from the registered owner of uncertificated shares, such uncertificated shares shall be canceled and issuance of new equivalent uncertificated shares or certificated shares shall be made to the person entitled thereto and the transaction shall be recorded upon the books of the corporation.

7.4 Registered Stockholders. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise required by the laws of Delaware.

7.5 Lost, Stolen or Destroyed Certificates. The corporation may direct that a new certificate or certificates be issued to replace any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen or destroyed and on such terms and conditions as the corporation may require. When authorizing the issue of a new certificate or certificates, the corporation may, in its discretion and as a condition precedent to the issuance thereof, require the owner of the lost, stolen or destroyed certificate or certificates, or his or her legal representative, to advertise the same in such manner as it may require, to indemnify the corporation in such manner as it may require, and/or to give the corporation a bond or other adequate security in such sum as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen or destroyed.

ARTICLE 8

General Provisions

8.1 Dividends. Dividends upon the capital stock of the corporation, subject to any restrictions contained in the DGCL or the provisions of the certificate of incorporation of the corporation, if any, may be declared by the Board of Directors at any regular or special meeting or by unanimous written consent. Dividends may be paid in cash, in property or in shares of capital stock, subject to the provisions of the certificate of incorporation of the corporation.

8.2 Checks. All checks or demands for money and notes of the corporation shall be signed by such officer or officers or such other person or persons as the Board of Directors or its designees may from time to time designate.

8.3 Corporate Seal. The Board of Directors may, by resolution, adopt a corporate seal. The corporate seal shall have inscribed thereon the name of the corporation, the year of its organization and the word “Delaware.” The seal may be used by causing it or a facsimile thereof to be impressed or affixed or otherwise reproduced. The seal may be altered from time to time by the Board of Directors.

8.4 Execution of Corporate Contracts and Instruments. The Board of Directors, except as otherwise provided in these bylaws, may authorize any officer or officers, or agent or agents, to enter into any contract or execute any instrument in the name of and on behalf of the corporation; such authority may be general or confined to specific instances.

8.5 Representation of Shares or Interests of Other Entities. The Chief Executive Officer, the President or any Vice President, the Chief Financial Officer or the Treasurer or any

Assistant Treasurer, or the Secretary or any Assistant Secretary of the corporation is authorized to vote, represent and exercise on behalf of the corporation all rights incident to any and all shares of any corporation or corporations or similar ownership interests of other business entities standing in the name of the corporation. The authority herein granted to said officers to vote or represent on behalf of the corporation any and all shares or similar ownership interests held by the corporation in any other corporation or corporations or other business entities may be exercised either by such officers in person or by any other person authorized so to do by proxy or power of attorney duly executed by said officers.

ARTICLE 9

Forum for Adjudication of Disputes

9.1 Exclusive Forum; Delaware Chancery Court. Unless the corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (or, if the Court of Chancery does not have jurisdiction, another state or federal court located within the State of Delaware), shall, to the fullest extent permitted by law, be the sole and exclusive forum for (a) any derivative action or proceeding brought in the name or right of the corporation or on behalf of the corporation, (b) any action or proceeding asserting a claim for breach of any fiduciary duty owed by any director, officer, employee, agent, or stockholder of the corporation to the corporation or the corporation's stockholders, (c) any action or proceeding arising or asserting a claim arising pursuant to any provision of the DGCL or any provision of the certificate of incorporation of the corporation, any Preferred Stock Designation (as that term is defined in the certificate of incorporation of the corporation), or these bylaws, (d) any action or proceeding to interpret, apply, enforce, or determine the validity of the certificate of incorporation of the corporation or these bylaws, or (e) any action or proceeding asserting a claim governed by the internal affairs doctrine. If any action, the subject matter of which is within the scope of this Section, is filed in a court other than a court located within the State of Delaware (a "***Foreign Action***") in the name of any stockholder, that stockholder shall be deemed to have consented to: (x) the personal jurisdiction of the state and federal courts located within the State of Delaware in connection with any action brought in any such court to enforce this Section (an "***Enforcement Action***"), and (y) having service of process made upon such stockholder in any such Enforcement Action by service upon such stockholder's counsel in the Foreign Action as agent for such stockholder, in each case, to the fullest extent permitted by law. Any person or entity purchasing or otherwise acquiring any interest in shares of capital stock of the corporation shall be deemed to have notice of and consented to the provisions of this Section 9.1.

9.2 Exclusive Forum; Federal District Courts. Unless the corporation consents in writing to the selection of an alternative forum, the federal district courts of the United States shall, to the fullest extent permitted by law, be the sole and exclusive forum for the resolution of any complaint asserting a cause of action under the Securities Act of 1933. Any person or entity purchasing or otherwise acquiring any interest in any security of the corporation shall be deemed to have notice of and consented to the provisions of this Section 9.2.

9.3 Failure to Enforce Exclusive Forum. Failure to enforce the provisions contained in this Article 9 would cause the corporation irreparable harm, and the corporation shall be entitled to equitable relief, including injunctive relief and specific performance, to enforce the foregoing provisions.

ARTICLE 10

Amendments

Subject to the laws of the State of Delaware, the Board of Directors is expressly authorized to adopt, amend or repeal the bylaws of the corporation, without any action on the part of the stockholders, by the affirmative vote of at least a majority of the Board of Directors. In addition to any vote of the holders of any class or series of stock of the corporation required by law, by the certificate of incorporation of the corporation, or by any Preferred Stock Designation, the bylaws may also be adopted, amended or repealed by the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then-outstanding shares of the capital stock of the corporation entitled to vote thereon, voting together as a single class.

CERTIFICATE OF SECRETARY

I, the undersigned, hereby certify:

(i) that I am a duly elected, acting and qualified Secretary of Silvaco Group, Inc., a Delaware corporation; and

(ii) that the foregoing bylaws, comprising 24 pages, constitute the bylaws of such corporation as duly adopted by the Board of Directors of such corporation on April 26, 2024, which bylaws became effective , 2024.

IN WITNESS WHEREOF, I have hereunto subscribed my name as of the day of , 2024.

_____

, Secretary

INCORPORATED PURSUANT TO THE LAWS OF DELAWARE

, 202__

SHARES OF COMMON STOCK

_____ _____

SILVACO GROUP, INC.

[TRANSFER SUBJECT TO RESTRICTIONS LEGENDED ON THE REVERSE OF THIS CERTIFICATE]

This certifies that _____ is the owner of _____ shares of Common Stock of

SILVACO GROUP, INC.

transferable only on the books of the company by the holders hereof in person or by duly authorized attorney on surrender of
this certificate properly endorsed.

In Witness Whereof, the duly authorized officers of this company have hereunder subscribed their names and caused the corporate seal to be hereto affixed on this , 202___.

SECRETARY

CHIEF EXECUTIVE OFFICER

[THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**ACT**"), OR THE SECURITIES LAWS OF ANY STATE. THEY MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF A REGISTRATION STATEMENT IN EFFECT WITH RESPECT TO THE SECURITIES UNDER THE ACT AND/OR APPLICABLE STATE SECURITIES LAWS, OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED OR UNLESS SOLD PURSUANT TO RULE 144 OF THE ACT.]

For Value Received, the undersigned hereby sells, assigns and transfers unto _____ Shares of Common Stock represented by the within certificate, and does hereby irrevocably constitute and appoint _____ to transfer the said Shares of Common Stock on the books of the within named Company with full power of substitution in the premises.

Dated _____

In presence of

_____ _____

Witness *Registered Holder*

Notice: The signature of this assignment must correspond with the name as written upon the face of the certificate, in every particular, without alteration or enlargement, or any change whatever.

Exhibit 5.1

DLA Piper LLP (US)
401 Congress Avenue, Suite 2500
Austin, Texas 78701-3799
www.dlapiper.com
T 512.457.7000
F 512.457.7001

April 30, 2024

Silvaco Group, Inc.
4701 Patrick Henry Dr., Building #23
Santa Clara, CA 95054

Re: Registration Statement on Form S-1

Ladies and Gentlemen:

We have acted as counsel to Silvaco Group, Inc., a Delaware corporation (the "***Company***") in connection with the proposed issuance and sale of up to 7,210,562 newly issued shares of the Company's common stock, par value $0.0001 per share (including up to 900,000 shares issuable upon exercise of an option granted to the underwriters) (the "***Shares***"), as set forth in the registration statement on Form S-1 (as amended and supplemented from time to time, the "***Registration Statement***") initially filed with the Securities and Exchange Commission on April 12, 2024 under the Securities Act of 1933, as amended (the "***Act***"). We understand that 6,900,000 of the Shares are to be sold to the underwriters for resale to the public as described in the Registration Statement and pursuant to an underwriting agreement, substantially in the form filed as Exhibit 1.1 to the Registration Statement (the "***Underwriting Agreement***"), to be entered into by and among the Company and the underwriters. In addition, 310,562 of the Shares will result from the conversion of the Company's Senior Subordinated Convertible Note, dated as of April 16, 2024 (the "***Note***"), on the closing date of the initial issuance and sale of the shares contemplated by the Underwriting Agreement.

This opinion is being furnished in accordance with the registration requirements of Item 16(a) of Form S-1 and Item 601(b)(5)(i) of Regulation S-K.

As the basis for the opinions hereinafter expressed, we have examined: (i) originals, or copies certified or otherwise identified, of (a) the Registration Statement; (b) the Amended and Restated Certificate of Incorporation of the Company, as amended, as currently in effect; (c) the Amended and Restated Bylaws of the Company, as currently in effect; (d) the forms of the Company's Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws, filed as Exhibits 3.2 and 3.4 to the Registration Statement, respectively, each of which is to be in effect prior to the closing of the offering contemplated by the Registration Statement, (e) certain resolutions of the Board of Directors of the Company; (f) the form of Underwriting Agreement; (g) the Note and (h) such other instruments and documents as we have deemed necessary or advisable for the purposes of this opinion; and (ii) such statutes, including the Delaware General Corporation Law, and regulations as we have deemed necessary or advisable for the purposes of this opinion. We have not independently verified any factual matter relating to this opinion.

We express no opinion other than as to the federal laws of the United States of America and the Delaware General Corporation Law (including the statutory provisions, the applicable provisions of the Delaware Constitution and reported judicial decisions interpreting the foregoing).

On the basis of the foregoing, we are of the opinion that the Shares, when such Shares shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the purchasers or the converting holders, and are issued, sold and delivered in accordance with the terms of the Underwriting Agreement, or issued and delivered in connection with the conversion of the Note, will be validly issued, fully paid and nonassessable.

We consent to the use of this opinion as an exhibit to the Registration Statement, and we consent to the reference of our name under the caption “Legal Matters” in the prospectus forming part of the Registration Statement. In giving our consent, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Act or the rules and regulations promulgated thereunder.

Very truly yours,

/s/ DLA Piper LLP (US)

INDEMNIFICATION AGREEMENT

THIS INDEMNIFICATION AGREEMENT (the "**Agreement**") is made and entered into as of _____, 20__ between Silvaco Group, Inc. a Delaware corporation (the "**Company**"), and _____ ("**Indemnitee**").

WITNESSETH THAT:

WHEREAS, highly competent persons have become more reluctant to serve corporations as directors and officers or in other capacities unless they are provided with adequate protection through insurance or adequate indemnification against inordinate risks of claims and actions against them arising out of their service to and activities on behalf of the corporation;

WHEREAS, the Board of Directors of the Company (the "**Board**") has determined that, in order to attract and retain qualified individuals, the Company will attempt to maintain on an ongoing basis, at its sole expense, liability insurance to protect persons serving the Company and its subsidiaries from certain liabilities. Although the furnishing of such insurance has been a customary and widespread practice among United States-based corporations and other business enterprises, the Company believes that, given current market conditions and trends, such insurance may be available to it in the future only at higher premiums and with more exclusions. At the same time, directors, officers, and other persons in service to corporations or business enterprises are being increasingly subjected to expensive and time-consuming litigation relating to, among other things, matters that traditionally would have been brought only against the Company or business enterprise itself. The Bylaws and Certificate of Incorporation of the Company require indemnification of the officers and directors of the Company. Indemnitee may also be entitled to indemnification pursuant to the General Corporation Law of the State of Delaware ("**DGCL**"). The Bylaws and Certificate of Incorporation and the DGCL expressly provide that the indemnification provisions set forth therein are not exclusive, and thereby contemplate that contracts may be entered into between the Company and members of the Board, officers and other persons with respect to indemnification;

WHEREAS, the uncertainties relating to such insurance and to indemnification have increased the difficulty of attracting and retaining such persons;

WHEREAS, the Board has determined that the increased difficulty in attracting and retaining such persons is detrimental to the best interests of the Company's stockholders and that the Company should act to assure such persons that there will be increased certainty of such protection in the future;

WHEREAS, it is reasonable, prudent and necessary for the Company contractually to obligate itself to indemnify, and to advance expenses on behalf of, such persons to the fullest extent permitted by applicable law so that they will serve or continue to serve the Company free from undue concern that they will not be so indemnified;

WHEREAS, this Agreement is a supplement to and in furtherance of the Bylaws and Certificate of Incorporation of the Company and any resolutions adopted pursuant thereto and any resolutions adopted pursuant thereto, and shall not be deemed a substitute therefor, nor to diminish or abrogate any rights of Indemnitee thereunder; and

WHEREAS, Indemnitee does not regard the protection available under the Company's Bylaws and Certificate of Incorporation and insurance as adequate in the present circumstances, and may not be willing to serve as an officer or director without adequate protection, and the Company desires Indemnitee to serve in such capacity. Indemnitee is willing to serve, continue to serve and to take on additional service for or on behalf of the Company on the condition that he or she be so indemnified; and

NOW, THEREFORE, in consideration of Indemnitee's agreement to serve as an officer and or director from and after the date hereof, so long as Indemnitee is duly appointed or elected and qualified in accordance with applicable provisions of the Bylaws of the Company or any subsidiary of the Company or until such time as Indemnitee tenders his or her resignation in writing, provided, however, that nothing contained in this Agreement is intended to create any right to continued employment or other service by Indemnitee, the parties hereto agree as follows:

1. Indemnity of Indemnitee. The Company hereby agrees to hold harmless and indemnify Indemnitee to the fullest extent permitted by law, or as such laws may from time to time be amended to increase the scope of such permitted indemnification. In furtherance of the foregoing indemnification, and without limiting the generality thereof:

(a) Proceedings Other Than Proceedings by or in the Right of the Company. Indemnitee shall be entitled to the rights of indemnification provided in this Section 1(a) if , by reason of his or her Corporate Status (as hereinafter defined), the Indemnitee is, or is threatened to be made, a party to or participant in any Proceeding (as hereinafter defined) other than a Proceeding by or in the right of the Company. Pursuant to this Section 1(a), Indemnitee shall be indemnified against all Expenses (as hereinafter defined), judgments, penalties, fines and amounts paid in settlement actually and reasonably incurred by him or her, or on his or her behalf, in connection with such Proceeding or any claim, issue or matter therein, if the Indemnitee acted in good faith and in a manner the Indemnitee reasonably believed to be in or not opposed to the best interests of the Company, and with respect to any criminal Proceeding, had no reasonable cause to believe the Indemnitee's conduct was unlawful.

(b) Proceedings by or in the Right of the Company. Indemnitee shall be entitled to the rights of indemnification provided in this Section 1(b) if, by reason of his or her Corporate Status, the Indemnitee is, or is threatened to be made, a party to or participant in any Proceeding brought by or in the right of the Company. Pursuant to this Section 1(b), Indemnitee shall be indemnified against all Expenses actually and reasonably incurred by the Indemnitee, or on the Indemnitee's behalf, in connection with such Proceeding if the Indemnitee acted in good faith and in a manner the Indemnitee reasonably believed to be in or not opposed to the best interests of the Company; provided, however, if applicable law so provides, no indemnification against such Expenses shall be made in respect of any claim, issue or matter in such Proceeding

as to which Indemnitee shall have been adjudged to be liable to the Company unless and to the extent that the Court of Chancery of the State of Delaware shall determine that such indemnification may be made.

(c) Actions where Indemnitee is Deceased. If Indemnitee is a person who was or is a party or is threatened to be made a party to any Proceeding by reason of the fact that Indemnitee is or was an Agent of the Company, or by reason of anything done or not done by Indemnitee in any such capacity, and if, prior to, during the pendency of or after completion of such Proceeding Indemnitee is deceased, the Company shall indemnify Indemnitee's heirs, executors and administrators against all Expenses and liability of any type whatsoever to the extent Indemnitee would have been entitled to indemnification pursuant to this Agreement were Indemnitee still alive.

(d) Indemnification for Expenses of a Party Who is Wholly or Partly Successful. Notwithstanding any other provision of this Agreement, to the extent that Indemnitee is, by reason of his or her Corporate Status, a party to (or participant in) and is successful, on the merits or otherwise, in any Proceeding, he or she shall be indemnified to the maximum extent permitted by law, as such may be amended from time to time, against all Expenses actually and reasonably incurred by him or her, or on his or her behalf, in connection therewith. If Indemnitee is not wholly successful in such Proceeding but is successful, on the merits or otherwise, as to one (1) or more but less than all claims, issues or matters in such Proceeding, the Company shall indemnify Indemnitee against all Expenses actually and reasonably incurred by him or her, or on his or her behalf, in connection with each successfully resolved claim, issue or matter. For purposes of this Section and without limitation, the termination of any claim, issue or matter in such a Proceeding by dismissal, with or without prejudice, shall be deemed to be a successful result as to such claim, issue or matter.

(e) Indemnification of Indemnitee by Subsidiary. Notwithstanding and in addition to any other provision of this Agreement, in the event that the Indemnitee serves, now or in the future, as a director or officer or in a similar position with any of the Company's subsidiaries, in consideration for such service, the Indemnitee shall be indemnified and be entitled to rights of advancement and contribution from any such subsidiary to the maximum extent permitted by this Agreement and by applicable law. Such indemnification, advancement and contribution shall be made pursuant to comparable procedures as those set forth in this Agreement. The Company agrees to take any and all actions necessary to cause each such subsidiary to effectuate such indemnification, advancement, and contribution. In the event that any such subsidiary against which the Indemnitee is entitled to such indemnification, advancement and contribution fails to provide such indemnification, advancement or contribution to the maximum extent permitted by this Agreement and by applicable law, the Company agrees to provide to the Indemnitee any and all indemnification, advancement and contribution to the maximum extent permitted by this Agreement and by applicable law on behalf of such subsidiary. The rights of indemnification, advancement and contribution provided to the Indemnitee by any subsidiary of the Company are not exclusive of any other rights which the Indemnitee may have from such subsidiary under statute, bylaw, agreement, vote of the board of directors of such subsidiary or otherwise.

2. Additional Indemnity. In addition to, and without regard to any limitations on, the indemnification provided for in Section 1 of this Agreement, the Company shall and hereby does indemnify and hold harmless Indemnitee against all Expenses, judgments, penalties, fines and amounts paid in settlement actually and reasonably incurred by him or her, or on his or her behalf, if, by reason of his or her Corporate Status, he or she is, or is threatened to be made, a party to or participant in any Proceeding (including a Proceeding by or in the right of the Company), including, without limitation, all liability arising out of the negligence or active or passive wrongdoing of Indemnitee. The only limitation that shall exist upon the Company's obligations pursuant to this Agreement shall be that the Company shall not be obligated to make any payment to Indemnitee that is finally determined (under the procedures, and subject to the presumptions, set forth in Sections 6 and 7 hereof) to be unlawful or such payment is otherwise prohibited by applicable law.

3. Contribution.

(a) Whether or not the indemnification provided in Sections 1 and 2 hereof is available, in respect of any threatened, pending or completed action, suit or proceeding in which the Company is jointly liable with Indemnitee (or would be if joined in such action, suit or proceeding), the Company shall pay, in the first instance, the entire amount of any judgment or settlement of such action, suit or proceeding without requiring Indemnitee to contribute to such payment and the Company hereby waives and relinquishes any right of contribution it may have against Indemnitee. The Company shall not enter into any settlement of any action, suit or proceeding in which the Company is jointly liable with Indemnitee (or would be if joined in such action, suit or proceeding) unless such settlement provides for a full and final release of all claims asserted against Indemnitee.

(b) Without diminishing or impairing the obligations of the Company set forth in the preceding subparagraph, if, for any reason, Indemnitee shall elect or be required to pay all or any portion of any judgment or settlement in any threatened, pending or completed action, suit or proceeding in which the Company is jointly liable with Indemnitee (or would be if joined in such action, suit or proceeding), the Company shall contribute to the amount of Expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred and paid or payable by Indemnitee in proportion to the relative benefits received by the Company and all officers, directors or employees of the Company, other than Indemnitee, who are jointly liable with Indemnitee (or would be if joined in such action, suit or proceeding), on the one hand, and Indemnitee, on the other hand, from the transaction or events from which such action, suit or proceeding arose; provided, however, that the proportion determined on the basis of relative benefit may, to the extent necessary to conform to law, be further adjusted by reference to the relative fault of the Company and all officers, directors or employees of the Company other than Indemnitee who are jointly liable with Indemnitee (or would be if joined in such action, suit or proceeding), on the one hand, and Indemnitee, on the other hand, in connection with the transaction or events that resulted in such expenses, judgments, fines or settlement amounts, as well as any other equitable considerations which applicable law may require to be considered. The relative fault of the Company and all officers, directors or employees of the Company, other than Indemnitee, who are jointly liable with Indemnitee (or would be if joined in such action, suit

or proceeding), on the one hand, and Indemnitee, on the other hand, shall be determined by reference to, among other things, the degree to which their actions were motivated by intent to gain personal profit or advantage, the degree to which their liability is primary or secondary and the degree to which their conduct is active or passive.

(c) The Company hereby agrees to fully indemnify and hold Indemnitee harmless from any claims of contribution which may be brought by officers, directors, or employees of the Company, other than Indemnitee, who may be jointly liable with Indemnitee.

(d) To the fullest extent permissible under applicable law, if the indemnification provided for in this Agreement is unavailable to Indemnitee for any reason whatsoever, the Company, in lieu of indemnifying Indemnitee, shall contribute to the amount incurred by Indemnitee, whether for judgments, fines, penalties, excise taxes, amounts paid or to be paid in settlement and/or for Expenses, in connection with any claim relating to an indemnifiable event under this Agreement, in such proportion as is deemed fair and reasonable in light of all of the circumstances of such Proceeding in order to reflect (i) the relative benefits received by the Company and Indemnitee as a result of the event(s) and/or transaction(s) giving cause to such Proceeding and/or (ii) the relative fault of the Company (and its directors, officers, employees and agents) and Indemnitee in connection with such event(s) and/or transaction(s).

4. Indemnification for Expenses of a Witness. Notwithstanding any other provision of this Agreement, to the extent that Indemnitee is, by reason of his or her Corporate Status, a witness, or is made (or asked) to respond to discovery requests, in any Proceeding to which Indemnitee is not a party, he or she shall be indemnified against all Expenses actually and reasonably incurred by him or her, or on his or her behalf, in connection therewith.

5. Advancement of Expenses. Notwithstanding any other provision of this Agreement, the Company shall advance all Expenses incurred by or on behalf of Indemnitee in connection with any Proceeding by reason of Indemnitee's Corporate Status within thirty (30) days after the receipt by the Company of a statement or statements from Indemnitee requesting such advance or advances from time to time, whether prior to or after final disposition of such Proceeding. Such statement or statements shall reasonably evidence the Expenses incurred by Indemnitee. The Indemnitee shall qualify for advances upon the execution and delivery to the Company of this Agreement, which shall constitute an undertaking providing that the Indemnitee undertakes to repay the amounts advanced (without interest) by the Company pursuant to this Section 5, if and only to the extent that it is ultimately determined that Indemnitee is not entitled to be indemnified by the Company. No other form of undertaking shall be required other than the execution of this Agreement. Any advances and undertakings to repay pursuant to this Section 5 shall be unsecured and interest free. This Section 5 shall not apply to any claim made by Indemnitee for which indemnity is excluded pursuant to Section 9.

6. Procedures and Presumptions for Determination of Entitlement to Indemnification. It is the intent of this Agreement to secure for Indemnitee rights of indemnity that are as favorable as may be permitted under the DGCL and public policy of the State of Delaware. Accordingly, the parties agree that the following procedures and presumptions shall

apply in the event of any question as to whether Indemnitee is entitled to indemnification under this Agreement:

(a) To obtain indemnification under this Agreement, Indemnitee shall submit to the Company a written request, including therein or therewith such documentation and information as is reasonably available to Indemnitee and is reasonably necessary to determine whether and to what extent Indemnitee is entitled to indemnification. The Secretary of the Company shall, promptly upon receipt of such a request for indemnification, advise the Board in writing that Indemnitee has requested indemnification. Notwithstanding the foregoing, any failure of Indemnitee to provide such a request to the Company, or to provide such a request in a timely fashion, shall not relieve the Company of any liability that it may have to Indemnitee unless, and to the extent that, such failure actually and materially prejudices the interests of the Company. The Company will be entitled to participate in the Proceeding at its own Expense.

(b) Upon written request by Indemnitee for indemnification pursuant to the first sentence of Section 6(a) hereof, a determination with respect to Indemnitee's entitlement thereto shall be made in the specific case by one of the following four methods, which shall be at the election of the Board except that, upon and after a "Change in Control" (as defined below), method (iii) must be used: (i) by a majority vote of the Disinterested Directors, even though less than a quorum, (ii) by a committee of disinterested directors designated by a majority vote of the Disinterested Directors, even though less than a quorum, (iii) if there are no Disinterested Directors or if the Disinterested Directors so direct, by independent legal counsel in a written opinion to the Board, a copy of which shall be delivered to the Indemnitee, or (iv) if so directed by the Board, by the stockholders of the Company. For purposes hereof, Disinterested Directors are those members of the Board who are not parties to the action, suit or proceeding in respect of which indemnification is sought by Indemnitee.

(c) If the determination of entitlement to indemnification is to be made by Independent Counsel pursuant to Section 6(b) hereof, the Independent Counsel shall be selected as provided in this Section 6(c). The Independent Counsel shall be selected by the Board. Indemnitee may, within ten (10) days after such written notice of selection shall have been given, deliver to the Company a written objection to such selection; provided, however, that such objection may be asserted only on the ground that the Independent Counsel so selected does not meet the requirements of "**Independent Counsel**" as defined in Section 13 of this Agreement, and the objection shall set forth with particularity the factual basis of such assertion. Absent a proper and timely objection, the person so selected shall act as Independent Counsel. If a written objection is made and substantiated, the Independent Counsel selected may not serve as Independent Counsel unless and until such objection is withdrawn or a court has determined that such objection is without merit. If, within twenty (20) days after submission by Indemnitee of a written request for indemnification pursuant to Section 6(a) hereof, no Independent Counsel shall have been selected and not objected to, either the Company or Indemnitee may petition the Court of Chancery of the State of Delaware for resolution of any objection which shall have been made by the Indemnitee to the Company's selection of Independent Counsel and/or for the appointment as Independent Counsel of a person selected by the court or by such other person as the court shall designate, and the person with respect to whom all objections are so resolved or

the person so appointed shall act as Independent Counsel under Section 6(b) hereof. The Company shall pay any and all reasonable fees and expenses of Independent Counsel incurred by such Independent Counsel in connection with acting pursuant to Section 6(b) hereof, and the Company shall pay all reasonable fees and expenses incurred by the Company and the Indemnitee incident to the procedures of this Section 6(c), regardless of the manner in which such Independent Counsel was selected or appointed.

(d) In making a determination with respect to entitlement to indemnification hereunder, the person or persons or entity making such determination shall presume that Indemnitee is entitled to indemnification under this Agreement. Anyone seeking to overcome this presumption shall have the burden of proof and the burden of persuasion by clear and convincing evidence. Neither the failure of the Company (including by its directors or independent legal counsel) to have made a determination prior to the commencement of any action pursuant to this Agreement that indemnification is proper in the circumstances because Indemnitee has met the applicable standard of conduct, nor an actual determination by the Company (including by its directors or independent legal counsel) that Indemnitee has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that Indemnitee has not met the applicable standard of conduct.

(e) Indemnitee shall be deemed to have acted in good faith if Indemnitee's action is based on the records or books of account of the Enterprise (as hereinafter defined), including financial statements, or on information supplied to Indemnitee by the officers of the Enterprise in the course of their duties, or on the advice of legal counsel for the Enterprise or on information or records given or reports made to the Enterprise by an independent certified public accountant or by an appraiser or other expert selected with reasonable care by the Enterprise. The provisions of this Section 6(e) shall not be deemed to be exclusive or to limit in any way the other circumstances in which the Indemnitee may be deemed to have met the applicable standard of conduct set forth in this Agreement. In addition, the knowledge and/or actions, or failure to act, of any director, officer, agent or employee of the Enterprise shall not be imputed to Indemnitee for purposes of determining the right to indemnification under this Agreement. Whether or not the foregoing provisions of this Section 6(e) are satisfied, it shall in any event be presumed that Indemnitee has at all times acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Company. Anyone seeking to overcome this presumption shall have the burden of proof and the burden of persuasion by clear and convincing evidence.

(f) If the person, persons or entity empowered or selected under Section 6 to determine whether Indemnitee is entitled to indemnification shall not have made a determination within sixty (60) days after receipt by the Company of the request therefor, the requisite determination of entitlement to indemnification shall be deemed to have been made and Indemnitee shall be entitled to such indemnification absent (i) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's statement not materially misleading, in connection with the request for indemnification, or (ii) a prohibition of such indemnification under applicable law; provided, however, that such sixty (60) day period may be extended for a reasonable time, not to exceed an additional thirty (30) days, if the person,

persons or entity making such determination with respect to entitlement to indemnification in good faith requires such additional time to obtain or evaluate documentation and/or information relating thereto; and provided further, that the foregoing provisions of this Section 6(f) shall not apply if the determination of entitlement to indemnification is to be made by the stockholders pursuant to Section 6(b) of this Agreement and if (A) within fifteen (15) days after receipt by the Company of the request for such determination, the Board or the Disinterested Directors, if appropriate, resolve to submit such determination to the stockholders for their consideration at an annual meeting thereof to be held within seventy five (75) days after such receipt and such determination is made thereat, or (B) a special meeting of stockholders is called within fifteen (15) days after such receipt for the purpose of making such determination, such meeting is held for such purpose within sixty (60) days after having been so called and such determination is made thereat.

(g) Indemnitee shall cooperate with the person, persons or entity making such determination with respect to Indemnitee's entitlement to indemnification, including providing to such person, persons or entity upon reasonable advance request any documentation or information which is not privileged or otherwise protected from disclosure and which is reasonably available to Indemnitee and reasonably necessary to such determination. Any Independent Counsel, member of the Board or stockholder of the Company shall act reasonably and in good faith in making a determination regarding the Indemnitee's entitlement to indemnification under this Agreement. Any costs or expenses (including attorneys' fees and disbursements) incurred by Indemnitee in so cooperating with the person, persons or entity making such determination shall be borne by the Company (irrespective of the determination as to Indemnitee's entitlement to indemnification) and the Company hereby indemnifies and agrees to hold Indemnitee harmless therefrom.

(h) In the event that any action, suit or proceeding to which Indemnitee is a party is resolved in any manner other than by adverse judgment against Indemnitee (including, without limitation, settlement of such action, suit or proceeding with or without payment of money or other consideration) it shall be presumed that Indemnitee has been successful on the merits or otherwise in such action, suit or proceeding. Anyone seeking to overcome this presumption shall have the burden of proof and the burden of persuasion by clear and convincing evidence.

(i) The termination of any Proceeding or of any claim, issue or matter therein, by judgment, order, settlement or conviction, or upon a plea of nolo contendere or its equivalent, shall not (except as otherwise expressly provided in this Agreement) of itself adversely affect the right of Indemnitee to indemnification or create a presumption that Indemnitee did not act in good faith and in a manner which he or she reasonably believed to be in or not opposed to the best interests of the Company or, with respect to any criminal Proceeding, that Indemnitee had reasonable cause to believe that his or her conduct was unlawful.

7. Remedies of Indemnitee.

(a) In the event that (i) a determination is made pursuant to Section 6 of this Agreement that Indemnitee is not entitled to indemnification under this Agreement, (ii)

advancement of Expenses is not timely made pursuant to Section 5 of this Agreement, (iii) no determination of entitlement to indemnification is made pursuant to Section 6(b) of this Agreement within ninety (90) days after receipt by the Company of the request for indemnification, (iv) payment of indemnification is not made pursuant to Sections 1(c), 1(e), 4 or the last sentence of Section 6(g) of this Agreement within ten (10) days after receipt by the Company of a written request therefor, or (v) payment of indemnification is not made pursuant to Sections 1(a) and 1(b) of this Agreement within ten (10) days after a determination has been made that Indemnitee is entitled to indemnification or such determination is deemed to have been made pursuant to Section 6 of this Agreement, Indemnitee shall be entitled to an adjudication in the Court of Chancery of the State of Delaware of Indemnitee's entitlement to such indemnification; or, in the alternative, at the election of the Company or the Indemnitee, the award of entitlement to such indemnification will instead be determined in arbitration to be conducted by a single arbitrator pursuant to the JAMS Streamlined Arbitration Rules & Procedures. Indemnitee shall commence such proceeding seeking an adjudication within one hundred eighty (180) days following the date on which Indemnitee first has the right to commence such proceeding pursuant to this Section 7(a). The Company shall not oppose Indemnitee's right to seek any such adjudication.

(b) In the event that a determination shall have been made pursuant to Section 6(b) of this Agreement that Indemnitee is not entitled to indemnification, any judicial proceeding commenced pursuant to this Section 7 shall be conducted in all respects as a de novo trial on the merits, and Indemnitee shall not be prejudiced by reason of the adverse determination under Section 6(b).

(c) If a determination shall have been made pursuant to Section 6(b) of this Agreement that Indemnitee is entitled to indemnification, the Company shall be bound by such determination in any judicial proceeding commenced pursuant to this Section 7, absent (i) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's misstatement not materially misleading in connection with the application for indemnification, or (ii) a prohibition of such indemnification under applicable law.

(d) In the event that Indemnitee, pursuant to this Section 7, seeks a judicial adjudication of his or her rights under, or to recover damages for breach of, this Agreement, or to recover under any directors' and officers' liability insurance policies maintained by the Company, the Company shall pay on his or her behalf, in advance, any and all expenses (of the types described in the definition of Expenses in Section 13 of this Agreement) actually and reasonably incurred by him or her in such judicial adjudication, regardless of whether Indemnitee ultimately is determined to be entitled to such indemnification, advancement of expenses or insurance recovery.

(e) The Company shall be precluded from asserting in any judicial proceeding commenced pursuant to this Section 7 that the procedures and presumptions of this Agreement are not valid, binding and enforceable and shall stipulate in any such court that the Company is bound by all the provisions of this Agreement. The Company shall indemnify Indemnitee against any and all Expenses and, if requested by Indemnitee, shall (within ten (10) days after receipt by

the Company of a written request therefore) advance, to the extent not prohibited by law, such expenses to Indemnitee, which are incurred by Indemnitee in connection with any action brought by Indemnitee for indemnification or advance of Expenses from the Company under this Agreement or under any directors' and officers' liability insurance policies maintained by the Company, if, in the case of indemnification, Indemnitee is wholly successful on the underlying claims; if Indemnitee is not wholly successful on the underlying claims, then such indemnification shall be only to the extent Indemnitee is successful on such underlying claims or otherwise as permitted by law, whichever is greater.

(f) Notwithstanding anything in this Agreement to the contrary, no determination as to entitlement to indemnification under this Agreement shall be required to be made prior to the final disposition of the Proceeding.

8. Non-Exclusivity; Survival of Rights; Insurance; Primacy of Indemnification; Subrogation.

(a) The rights of indemnification as provided by this Agreement shall not be deemed exclusive of any other rights to which Indemnitee may at any time be entitled under applicable law, the Certificate of Incorporation, the Bylaws, any agreement, a vote of stockholders, a resolution of directors of the Company, or otherwise. No amendment, alteration or repeal of this Agreement or of any provision hereof shall limit or restrict any right of Indemnitee under this Agreement in respect of any action taken or omitted by such Indemnitee in his or her Corporate Status prior to such amendment, alteration or repeal. To the extent that a change in the DGCL, whether by statute or judicial decision, permits greater indemnification than would be afforded currently under the Certificate of Incorporation, Bylaws and this Agreement, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits so afforded by such change. No right or remedy herein conferred is intended to be exclusive of any other right or remedy, and every other right and remedy shall be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other right or remedy.

(b) To the extent that the Company maintains an insurance policy or policies providing liability insurance for directors, officers, employees, or agents or fiduciaries of the Company or of any other corporation, limited liability company, partnership, joint venture, trust, employee benefit plan or other enterprise that such person serves at the request of the Company, Indemnitee shall be covered by such policy or policies in accordance with its or their terms to the maximum extent of the coverage available for any director, officer, employee, agent or fiduciary under such policy or policies. If, at the time of the receipt of a notice of a claim pursuant to the terms hereof, the Company has directors' and officers' liability insurance in effect, the Company shall give prompt notice of the commencement of such proceeding to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of the Indemnitee, all amounts payable as a result of such proceeding in accordance with the terms of such policies.

(c) Except as provided in paragraph (c) above, in the event of any payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee (other than against the Fund Indemnitors), who shall execute all papers required and take all action necessary to secure such rights, including execution of such documents as are necessary to enable the Company to bring suit to enforce such rights.

(d) Except as provided in paragraph (c) above, the Company shall not be liable under this Agreement to make any payment of amounts otherwise indemnifiable hereunder if and to the extent that Indemnitee has otherwise actually received such payment under any insurance policy, contract, agreement or otherwise.

(e) Except as provided in paragraph (c) above, the Company's obligation to indemnify or advance Expenses hereunder to Indemnitee who is or was serving at the request of the Company as a director, officer, employee or agent of any other corporation, limited liability company, partnership, joint venture, trust, employee benefit plan or other enterprise shall be reduced by any amount Indemnitee has actually received as indemnification or advancement of expenses from such other corporation, limited liability company, partnership, joint venture, trust, employee benefit plan or other enterprise.

9. Exculpation.

(a) Limitation of Liability. Indemnitee shall not be personally liable to the Company or any of its subsidiaries or to the stockholders of the Company or any such subsidiary for monetary damages for breach of fiduciary duty as a director of the Company or any such subsidiary; provided, however, that the foregoing shall not eliminate or limit the liability of the Indemnitee (i) for any breach of the Indemnitee's duty of loyalty to the Company or such subsidiary or the stockholders thereof; (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of the law; (iii) under Section 174 of the DGCL or any similar provision of other applicable corporations law; or (iv) for any transaction from which the Indemnitee derived an improper personal benefit. If the DGCL or such other applicable law shall be amended to permit further elimination or limitation of the personal liability of directors, then the liability of the Indemnitee shall, automatically, without any further action, be eliminated or limited to the fullest extent permitted by the DGCL or such other applicable law as so amended.

(b) Period of Limitations. No legal action shall be brought and no cause of action shall be asserted by or in the right of the Company or any of its subsidiaries against Indemnitee or Indemnitee's estate, spouses, heirs, executors, personal or legal representatives, administrators or assigns after the expiration of two (2) years from the date of accrual of such cause of action, and any claim or cause of action of the Company shall be extinguished and deemed released unless asserted by the timely filing of a legal action within such two (2) year period, provided that if any shorter period of limitations is otherwise applicable to any such cause of action, such shorter period shall govern.

10. Exception to Right of Indemnification. Notwithstanding any provision in this Agreement, the Company shall not be obligated under this Agreement to make any indemnity in connection with any claim made against Indemnitee:

(a) for which payment has actually been made to or on behalf of Indemnitee under any insurance policy or other indemnity provision, except with respect to any excess beyond the amount paid under any insurance policy or other indemnity provision; or

(b) for (i) an accounting of profits made from the purchase and sale (or sale and purchase) by Indemnitee of securities of the Company within the meaning of Section 16(b) of the Securities Exchange Act of 1934, as amended, or similar provisions of state statutory law or common law, (ii) any reimbursement of the Company by the Indemnitee of any bonus or other incentive-based or equity-based compensation or of any profits realized by the Indemnitee from the sale of securities of the Company, as required in each case under the Exchange Act (including any such reimbursements that arise from an accounting restatement of the Company pursuant to Section 304 of the Sarbanes-Oxley Act of 2002 (the "Sarbanes-Oxley Act"), or the payment to the Company of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 306 of the Sarbanes-Oxley Act) or (iii) any reimbursement of the Company by Indemnitee of any compensation pursuant to any compensation recoupment or clawback policy adopted by the Board or the compensation committee of the Board, including but not limited to any such policy adopted to comply with stock exchange listing requirements implementing Section 10D of the Exchange Act;

(c) in connection with any Proceeding (or any part of any Proceeding) initiated by the Indemnitee, including any Proceeding (or any part of any Proceeding) initiated by the Indemnitee against the Company or its directors, officers, employees or other indemnitees, unless (i) the Board authorized the Proceeding (or any part of any Proceeding) prior to its initiation or (ii) the Company provides the indemnification, in its sole discretion, pursuant to the powers vested in the Company under applicable law;

(d) for Expenses determined by the Company to have arisen out of Indemnitee's breach or violation of his or her obligations under (i) any employment agreement between the Indemnitee and the Company or (ii) the Company's Code of Business Conduct and Ethics (as amended from time to time);

(e) with respect to remuneration paid to the Indemnitee if it is determined by final judgment or other final adjudication that such remuneration was in violation of law (and, in this respect, both the Company and the Indemnitee have been advised that the Securities and Exchange Commission believes that indemnification for liabilities arising under the U.S. federal securities laws is against public policy and is, therefore, unenforceable and that claims for indemnification should be submitted to appropriate courts for adjudication, as indicated in the last paragraph of this Section 9 below);

(f) a final judgment or other final adjudication is made that the Indemnitee's conduct was in bad faith, knowingly fraudulent or deliberately dishonest or constituted willful misconduct (but only to the extent of such specific determination); or

(g) on account of conduct that is established by a final judgment as constituting a breach of the Indemnitee's duties to the Company under the Certificate of Incorporation, the Bylaws, or DGCL or resulting in any personal profit or advantage to which the Indemnitee is not legally entitled.

For purposes of this Section 9, a final judgment or other adjudication may be reached in either the underlying proceeding or action in connection with which indemnification is sought or a separate proceeding or action to establish rights and liabilities under this Agreement.

11. Duration of Agreement. All agreements and obligations of the Company contained herein shall continue during the period the Indemnitee is an officer or director of the Company (or is or was serving at the request of the Company as a director, officer, employee or agent of another corporation, limited liability company, partnership, joint venture, trust or other enterprise) and shall continue thereafter so long as the Indemnitee shall be subject to any Proceeding by reason of his or her Corporate Status, whether or not he or she is acting or serving in any such capacity at the time any liability or expense is incurred for which indemnification can be provided under this Agreement. This Agreement shall be binding upon and inure to the benefit of and be enforceable by the parties hereto and their respective successors (including any direct or indirect successor by purchase, merger, consolidation or otherwise to all or substantially all of the business or assets of the Company), assigns, spouses, heirs, executors and personal and legal representatives.

12. Security. To the extent requested by Indemnitee and approved by the Board, the Company may at any time and from time to time provide security to Indemnitee for the Company's obligations hereunder through an irrevocable bank line of credit, funded trust or other collateral. Any such security, once provided to Indemnitee, may not be revoked or released without the prior written consent of the Indemnitee.

13. Enforcement.

(a) The Company expressly confirms and agrees that it has entered into this Agreement and assumes the obligations imposed on it hereby in order to induce Indemnitee to serve as an officer or director of the Company, and the Company acknowledges that Indemnitee is relying upon this Agreement in serving as an officer or director of the Company.

(b) This Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter hereof and supersedes all prior agreements and understandings, oral, written and implied, between the parties hereto with respect to the subject matter hereof.

14. Definitions. For purposes of this Agreement:

(a) "**Corporate Status**" describes the status of a person who is or was a director, officer, employee, agent or fiduciary of the Company or of any other corporation, partnership, joint venture, trust, employee benefit plan or other enterprise that such person is or was serving at the request of the Company.

(b) "**Disinterested Director**" means a director of the Company who is not and was not a party to the Proceeding in respect of which indemnification is sought by Indemnitee.

(c) "**Enterprise**" shall mean the Company and any other corporation, partnership, joint venture, trust, employee benefit plan or other enterprise that Indemnitee is or was serving at the request of the Company as a director, officer, employee, agent or fiduciary.

(d) "**Expenses**" shall include all reasonable attorneys' fees, retainers, court costs, transcript costs, fees of experts, witness fees, travel expenses, duplicating costs, printing and binding costs, telephone charges, postage, delivery service fees, and any federal, state, local or foreign taxes imposed on the Indemnitee as a result of the actual or deemed receipt of any payments under this Agreement, ERISA excise taxes and penalties, and all other disbursements or expenses of the types customarily incurred in connection with prosecuting, defending, preparing to prosecute or defend, investigating, participating, or being or preparing to be a witness in a Proceeding, or responding to, or objecting to, a request to provide discovery in any Proceeding. Expenses also shall include (i) Expenses incurred in connection with any appeal resulting from any Proceeding, including, without limitation, the premium, security for, and other costs relating to any cost bond, supersedeas bond, or other appeal bond or its equivalent (ii) Expenses incurred in connection with recovery under any directors' and officers' liability insurance policies maintained by the Company, regardless of whether Indemnitee is ultimately determined to be entitled to such indemnification, advancement or Expenses or insurance recovery, as the case may be, and (iii) for purposes of Section 7(e) only, Expenses incurred by Indemnitee in connection with the interpretation, enforcement or defense of Indemnitee's rights under this Agreement, the Certificate of Incorporation, the Bylaws, or under any directors' and officers' liability insurance policies maintained by the Company, by litigation or otherwise. Expenses, however, shall not include amounts paid in settlement by Indemnitee or the amount of judgments or fines against Indemnitee.

(e) "**Independent Counsel**" means a law firm, or a member of a law firm, that is experienced in matters of corporation law and neither at present is, nor in the past five (5) years has been, retained to represent (i) the Company or Indemnitee in any matter material to either such party (other than with respect to matters concerning Indemnitee under this Agreement, or of other indemnitees under similar indemnification agreements), or (ii) any other party to the Proceeding giving rise to a claim for indemnification hereunder. Notwithstanding the foregoing, the term "Independent Counsel" shall not include any person who, under the applicable standards of professional conduct then prevailing, would have a conflict of interest in representing either the Company or Indemnitee in an action to determine Indemnitee's rights under this Agreement. The Company agrees to pay the reasonable fees of the Independent Counsel referred to above and to fully indemnify such counsel against any and all Expenses, claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto.

(f) "**Proceeding**" includes any threatened, pending or completed action, suit, claim, counterclaim, cross claim, arbitration, mediation, alternate dispute resolution mechanism, investigation, inquiry, administrative hearing or any other actual, threatened or completed

proceeding, whether brought by or in the right of the Company or otherwise and whether civil, criminal, administrative or investigative, including any appeal therefrom, in which Indemnitee was, is or will be involved as a party or otherwise, by reason of his or her Corporate Status, by reason of any action taken by him or her, or of any inaction on his or her part, while acting in his or her Corporate Status; in each case whether or not he or she is acting or serving in any such capacity at the time any liability or expense is incurred for which indemnification, reimbursement or advancement of expenses can be provided under this Agreement; including one pending on or before the date of this Agreement, but excluding one initiated by an Indemnitee pursuant to Section 7 of this Agreement to enforce his or her rights under this Agreement.

(g) A "**Change in Control**" shall mean and be deemed to occur upon the earliest to occur after the date of this Agreement of any of the following events:

(i) Acquisition of Stock by Third Party. Any Person (as defined below) is or becomes the Beneficial Owner (as defined below), directly or indirectly, of securities of the Company representing fifteen percent (15%) or more of the combined voting power of the Company's then outstanding securities unless the change in relative Beneficial Ownership of the Company's securities by any Person results solely from a reduction in the aggregate number of outstanding shares of securities entitled to vote generally in the election of directors;

(ii) Change in Board. During any period of two (2) consecutive years (not including any period prior to the execution of this Agreement), individuals who at the beginning of such period constitute the Board, and any new director (other than a director designated by a person who has entered into an agreement with the Company to effect a transaction described in Sections 13(g)(i), 13(g)(iii) or 13(g)(iv)) whose election by the Board or nomination for election by the Company's stockholders was approved by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election was previously so approved, cease for any reason to constitute a least a majority of the members of the Board; Corporate Transactions. The effective date of a merger or consolidation of the Company with any other entity, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty-one percent (51%) of the combined voting power of the voting securities of the surviving entity outstanding immediately after such merger or consolidation and with the power to elect at least a majority of the Board or other governing body of such surviving entity;

(iii) Liquidation. The approval by the stockholders of the Company of a complete liquidation of the Company or an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets; and

(iv) Other Events. There occurs any other event of a nature that would be required to be reported in response to Item 6(e) of Schedule 14A of Regulation 14A (or a response to any similar item on any similar schedule or form) promulgated under the Exchange

Act (as defined below), whether or not the Company is then subject to such reporting requirement.

(v) For purposes of this Section 13(g), the following terms shall have the following meanings:

(A) "**Exchange Act**" shall mean the Securities Exchange Act of 1934, as amended.

(B) "**Person**" shall have the meaning stated in Sections 13(d) and 14(d) of the Exchange Act; provided, however, that Person shall exclude (i) the Company, (ii) any trustee or other fiduciary holding securities under an employee benefit plan of the Company and (iii) any corporation owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their ownership of stock of the Company.

(C) "**Beneficial Owner**" shall have the meaning given to such term in Rule 13d-3 under the Exchange Act; provided, however, that Beneficial Owner shall exclude any Person otherwise becoming a Beneficial Owner by reason of the stockholders of the Company approving a merger of the Company with another entity.

15. Severability. The invalidity or unenforceability of any provision hereof shall in no way affect the validity or enforceability of any other provision. Without limiting the generality of the foregoing, this Agreement is intended to confer upon Indemnitee indemnification rights to the fullest extent permitted by applicable laws. In the event any provision hereof conflicts with any applicable law, such provision shall be deemed modified, consistent with the aforementioned intent, to the extent necessary to resolve such conflict.

16. Modification and Waiver. No supplement, modification, termination or amendment of this Agreement shall be binding unless executed in writing by both of the parties hereto. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions hereof (whether or not similar) nor shall such waiver constitute a continuing waiver.

17. Notice By Indemnitee. Indemnitee agrees promptly to notify the Company in writing upon being served with or otherwise receiving any summons, citation, subpoena, complaint, indictment, information or other document relating to any Proceeding or matter which may be subject to indemnification covered hereunder. The failure to so notify the Company shall not relieve the Company of any obligation which it may have to Indemnitee under this Agreement or otherwise unless and only to the extent that such failure or delay materially prejudices the Company.

18. Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given (a) upon personal delivery to the party to be notified, (b) when sent by confirmed electronic mail if sent during normal business hours of the recipient, and if not so confirmed, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage

prepaid, or (d) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent:

(a) To Indemnitee at the address set forth below Indemnitee signature hereto.

(b) To the Company at:
Silvaco, Group, Inc.
4701 Patrick Henry Drive, Building #23
Santa Clara, CA 95954
Attention: Chief Executive Officer

or to such other address as may have been furnished to Indemnitee by the Company or to the Company by Indemnitee, as the case may be.

19. Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same the same instrument. Counterparts may be delivered via electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, *e.g.*, www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

20. Headings. The headings of the paragraphs of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction thereof.

21. Governing Law and Consent to Jurisdiction. This Agreement and the legal relations among the parties arising out of or in connection with this Agreement shall be governed by, and construed and enforced in accordance with, the laws of the State of Delaware, without regard to its conflict of laws rules. The Company and Indemnitee hereby irrevocably and unconditionally (i) agree that any action or proceeding arising out of or in connection with this Agreement shall be brought only in the Court of Chancery of the State of Delaware (the "Delaware Court"), unless the Delaware Court lacks jurisdiction, in which case any such action or proceeding shall be brought exclusively in any other court of the State of Delaware or any federal court sitting in the State of Delaware (an "Alternative Court"), (ii) agree not to bring any such action or proceeding in any other state or federal court in the United States of America or any court in any other country, (iii) consent to submit to the exclusive jurisdiction of the Delaware Court (or Alternative Court if applicable) for purposes of any action or proceeding arising out of or in connection with this Agreement, (iv) appoint, to the extent such party is not otherwise subject to service of process in the State of Delaware, irrevocably Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808. as its agent in the State of Delaware as such party's agent for acceptance of legal process in connection with any such action or proceeding against such party with the same legal force and validity as if served upon such party personally within the State of Delaware, (v) waive any objection to the laying of venue of any such action or proceeding in the Delaware Court (or Alternative Court if applicable), and (vi) waive, and agree not to plead or to make, any claim that any such action or

proceeding brought in the Delaware Court (or Alternative Court if applicable) has been brought in an improper or inconvenient forum.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have executed this Indemnification Agreement on and as of the day and year first above written.

SILVACO GROUP, INC.

By: _____
Name: _____
Title: _____

INDEMNITEE

_____
Name: _____

Address: _____
_____
_____
_____

SILVACO GROUP, INC.
2024 STOCK INCENTIVE PLAN

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SILVACO GROUP, INC.

2024 STOCK INCENTIVE PLAN

SECTION 1. ESTABLISHMENT AND PURPOSE.

The Plan is effective on the date on which the registration statement covering the initial public offering of the Shares is declared effective by the United States Securities and Exchange Commission (the "**Effective Date**"). The Plan's purpose is to enhance the Company's ability to attract, retain, incent, reward, and motivate persons who make (or are expected to make) important contributions to the Company and/or its Subsidiaries and Affiliates by providing Participants with equity ownership and other incentive opportunities.

SECTION 2. DEFINITIONS.

(a) "**2014 Plan**" means the Silvaco Group, Inc. 2014 Stock Incentive Plan.

(b) "**Affiliate**" means any entity other than a Subsidiary if the Company and/or one or more Subsidiaries own not less than fifty percent (50%) of such entity.

(c) "**Award**" means any award of an Option, a SAR, a Restricted Share, a Stock Unit, a Stock-Based Award, or a Cash-Based Award under the Plan.

(d) "**Award Agreement**" means the agreement between the Company and the recipient of an Award which contains the terms, conditions and restrictions pertaining to such Award.

(e) "**Board of Directors**" or "**Board**" means the Board of Directors of the Company, as constituted from time to time.

(f) "**Cash-Based Award**" means an Award that entitles the Participant to receive a cash-denominated payment.

(g) "**Change in Control**" means the occurrence of any of the following events:

(i) A change in the composition of the Board occurs as a result of which fewer than one-half of the incumbent directors are directors who either:

(A) Had been directors of the Company on the "look-back date" (as defined below) (the "**original directors**"); or

(B) Were elected, or nominated for election, to the Board with the affirmative votes of at least a majority of the aggregate of the original directors who were still in office at the time of the election or nomination and the directors whose election or nomination was previously so approved (the "**continuing directors**");

provided, however, that for this purpose, the "original directors" and "continuing directors" shall not include any individual whose initial assumption of office occurred as a result of an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents, by or on behalf of a person other than the Board;

(ii) Any "person" (as defined below) who by the acquisition or aggregation of securities, is or becomes the "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing fifty percent (50%) or more of the combined voting power of the Company's then outstanding securities ordinarily (and apart from rights accruing under special circumstances) having the right to vote at elections of directors (the "**Base Capital Stock**"); except that any change in the relative beneficial ownership of the Company's securities by any person resulting solely from a reduction in the aggregate number of outstanding Shares of Base Capital Stock, and any decrease thereafter in such person's ownership of securities, shall be disregarded until such person increases in any manner, directly or indirectly, such person's beneficial ownership of any securities of the Company;

(iii) The consummation of a merger or consolidation of the Company or a Subsidiary of the Company with or into another entity or any other corporate reorganization, if persons who were not stockholders of the Company immediately prior to such merger, consolidation or other reorganization own immediately after such merger, consolidation or other reorganization fifty percent (50%) or more of the voting power of the outstanding securities of each of (A) the Company (or its successor) and (B) any direct or indirect parent corporation of the Company (or its successor); or

(iv) The sale, transfer, or other disposition of all or substantially all of the Company's assets.

For purposes of subsection (g)(i) above, the term "look-back" date means the later of (1) the Effective Date and (2) the date that is twenty-four (24) months prior to the date of the event that may constitute a Change in Control.

For purposes of subsection (g)(ii) above, the term "person" shall have the same meaning as when used in Sections 13(d) and 14(d) of the Exchange Act, but shall exclude (1) a trustee or other fiduciary holding securities under an employee benefit plan maintained by the Company or a Parent or Subsidiary, (2) a corporation owned directly or indirectly by the stockholders of the Company in substantially the same proportions as their ownership of the Stock, and (3) the Company or any Subsidiary of the Company.

Any other provision of this Section 2(g) notwithstanding, a transaction shall not constitute a Change in Control if its sole purpose is to change the state of the Company's incorporation or to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction, and a Change in Control shall not be deemed to occur if the Company files a registration statement with the United States Securities and Exchange Commission in connection with an initial or secondary public offering of securities or debt of the Company to the public or on account of any transaction or series of transactions principally for bona fide equity financing purposes in which cash is received by the Company or any successor or indebtedness of the Company is cancelled or converted or a combination thereof.

(h) "**Code**" means the United States Internal Revenue Code of 1986, as amended, and the rules and regulations promulgated thereunder.

(i) "**Committee**" means the Compensation Committee of the Board as designated by the Board which is authorized to administer the Plan as described in Section 3 hereof.

(j) "**Company**" means Silvaco Group, Inc., a Delaware corporation, including any successor thereto.

(k) "**Consultant**" means an individual who is a consultant or advisor and who provides bona fide services to the Company, a Parent, a Subsidiary, or an Affiliate as an independent contractor (not including service as a member of the Board) or a member of the board of directors of a Parent or a Subsidiary, in each case who is not an Employee.

(l) "**Disability**" means any permanent and total disability as defined by Section 22(e)(3) of the Code, or in the case of a Participant outside the United States, such other definition as determined by the Committee for purposes of the Plan taking into consideration the provisions of applicable law.

(m) "**Employee**" means any individual who is a common-law employee of the Company, a Parent, a Subsidiary, or an Affiliate.

(n) "**Exchange Act**" means the United States Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

(o) "**Exercise Price**" means, in the case of an Option, the amount for which one Share may be purchased upon exercise of such Option, as specified in the applicable Stock Option Award Agreement. "Exercise Price" means, in the case of a SAR, an amount, as specified in the applicable SAR Award Agreement, which is subtracted from the Fair Market Value of one Share in determining the amount payable upon exercise of such SAR.

(p) "**Fair Market Value**" with respect to a Share means the market price of one Share determined by the Committee as follows:

(i) If the Share was traded over-the-counter on the date in question, then the Fair Market Value shall be equal to the last transaction price quoted for such date by the OTC Bulletin Board or, if not so quoted, shall be equal to the mean between the last reported representative bid and asked prices quoted for such date by the principal automated inter-dealer quotation system on which the Shares are quoted or, if the Shares are not quoted on any such system, by the Pink Quote system;

(ii) If the Share was traded on any established stock exchange (such as the New York Stock Exchange, The Nasdaq Capital Market, The Nasdaq Global Market or The Nasdaq Global Select Market) or national market system on the date in question, then the Fair Market Value shall be equal to the closing price reported for such date by the applicable exchange or system; or

(iii) If none of the foregoing provisions is applicable, then the Fair Market Value shall be determined by the Committee in good faith on such basis as it deems appropriate.

The determination of fair market value for purposes of tax withholding may be made in the Committee's discretion subject to applicable law and is not required to be consistent with the determination of Fair Market Value for other purposes.

In all cases, the determination of Fair Market Value by the Committee shall be conclusive and binding on all persons.

For any date that is not a trading day, the Fair Market Value of a Share for such date shall be determined under clauses (i) and (ii) above with reference to the immediately preceding trading day. In all cases, the determination of Fair Market Value by the Committee shall be conclusive and binding on all persons and shall be consistent with the rules of Section 409A and Section 422 of the Code to the extent applicable.

(q) "**ISO**" means an Option intended to be an "incentive stock option" described in Section 422 of the Code. Each Option granted pursuant to the Plan will be treated as providing by its terms that it is to be an NSO unless, as of the date of grant, it is expressly designated as an ISO in the applicable Stock Option Award Agreement.

(r) "**Nonstatutory Option**" or "**NSO**" means an Option that is not an ISO.

(s) "**Option**" means an option entitling the holder to acquire Shares upon payment of the exercise price.

(t) "**Outside Director**" means a member of the Board who is not a common-law employee of, or paid consultant to, the Company, a Parent or a Subsidiary.

(u) "**Parent**" means any corporation (other than the Company) in an unbroken chain of corporations ending with the Company, if each of the corporations other than the Company owns stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain. A corporation that attains the status of a Parent on a date after the adoption of the Plan shall be a Parent commencing as of such date.

(v) "**Participant**" means a person who holds an Award.

(w) "**Plan**" means this 2024 Stock Incentive Plan of Silvaco Group, Inc., as amended from time to time.

(x) "**Purchase Price**" means the consideration for which one Share may be acquired under the Plan (other than upon exercise of an Option or SAR), as specified by the Committee.

(y) "**Restricted Share**" means a Share subject to restrictions requiring that it be forfeited, redelivered or offered for sale to the Company if specified performance or other vesting conditions are not satisfied awarded under the Plan.

(z) "**Returning Shares**" means Shares subject to outstanding stock awards granted under the 2014 Plan and that following the Effective Date: (A) are not issued because such award or portion thereof is forfeited or terminated for any reason before being exercised or settled; (B) are not issued because such stock award or any portion thereof is settled in cash; (C) are subject to vesting restrictions and are subsequently forfeited; (D) are withheld or reacquired to satisfy the exercise, strike or purchase price; or (E) are withheld or reacquired to satisfy a tax withholding obligation.

(aa) "**SAR**" means a right entitling the holder upon exercise to receive an amount (payable in cash or in Shares of equivalent value) equal to the excess of the Fair Market Value of the Shares subject to the right over the Exercise Price from which appreciation under the SAR is to be measured.

(bb) "**Section 409A**" means Section 409A of the Code.

(cc) "**Securities Act**" means the United States Securities Act of 1933, as amended, the rules and regulations promulgated thereunder.

(dd) "**Service**" means service as an Employee, Consultant or Outside Director, subject to such further limitations as may be set forth in the Plan or the applicable Award Agreement. Service terminates three (3) months after an Employee goes on a bona fide leave of absence, that was approved by the Company in writing, except where the terms of the approved leave provide otherwise, or when continued Service crediting is required by applicable law. For purposes of determining whether an Option is entitled to ISO status, an Employee's employment will be treated as terminating three (3) months after such Employee went on leave, unless such Employee's right to return to active work is guaranteed by law or by a contract. Service terminates in any event when the approved leave ends, unless such Employee immediately

returns to active work. The Administrator determines which leaves of absence count toward Service, and when Service terminates for all purposes under the Plan. Unless a different treatment is approved by the Administrator, vesting will be adjusted pro-rata for any approved reductions in work hours (for example, from full-time to part-time) other than due to an approved leave of absence as discussed in the prior sentence (i.e., the portion of the award vesting on each vesting date is reduced pro-rata based on the reduction in hours worked).

(ee) "**Share**" means one share of ordinary stock, par value $0.0001 per share, of the Company as adjusted in accordance with Section 12 (if applicable).

(ff) *"***Stock-Based Award***"* means an Award other than an Option, a SAR, a Restricted Share, a Stock Unit that is convertible into or otherwise based on Shares.

(gg) *"***Stock Unit***"* means a bookkeeping entry representing the Company's obligation to deliver one Share (or distribute cash measured by the value of a Share on a future date) and may be subject to the satisfaction of performance or other vesting conditions.

(hh) "**Subsidiary**" means any corporation, if the Company owns and/or one or more other Subsidiaries own not less than fifty percent (50%) of the total combined voting power of all classes of outstanding stock of such corporation. A corporation that attains the status of a Subsidiary on a date after the adoption of the Plan shall be considered a Subsidiary commencing as of such date. The determination of whether an entity is a "Subsidiary" shall be made in accordance with Section 424(f) of the code.

SECTION 3. ADMINISTRATION.

(a) *Committee Composition*. The Plan shall be administered by a Committee appointed by the Board, or by the Board acting as the Committee. The Committee shall consist of two or more directors of the Company. In addition, to the extent required by the Board, the composition of the Committee shall satisfy such requirements of the New York Stock Exchange or the Nasdaq Stock Market, as applicable, and as the Securities and Exchange Commission may establish for administrators acting under plans intended to qualify for exemption under Rule 16b-3 (or its successor) under the Exchange Act.

(b) *Committee Appointment*. The Board may also appoint one or more separate committees of the Board, each composed of one or more directors of the Company who need not satisfy the requirements of Section 3(a), who may administer the Plan, grant Awards under the Plan and determine all terms of such grants, in each case with respect to all Employees, Consultants and Outside Directors (except such as may be on such committee), provided that such committee or committees may perform these functions only with respect to Employees who are not considered officers or directors of the Company under Section 16 of the Exchange Act. Within the limitations of the preceding sentence, any reference in the Plan to the Committee shall include such committee or committees appointed pursuant to the preceding sentence. To the extent permitted by applicable laws, the Board or Committee may also authorize one or more officers of the Company to designate Employees, other than officers under Section 16 of the Exchange Act, to receive Awards and/or to determine the number of such Awards to be received

by such persons; provided, however, that the Board or Committee shall specify the total number of Awards that such officers may so award.

(c) *Committee Responsibilities*. Subject to the provisions of the Plan, the Committee shall have full authority and discretion to take the following actions:

(i) To interpret the Plan and to apply its provisions;

(ii) To adopt, amend, or rescind rules, procedures, and forms relating to the Plan;

(iii) To adopt, amend, or terminate sub-plans established for the purpose of satisfying applicable foreign laws including qualifying for preferred tax treatment under applicable foreign tax laws;

(iv) To authorize any person to execute, on behalf of the Company, any instrument required to carry out the purposes of the Plan;

(v) To determine when Awards are to be granted under the Plan;

(vi) To select the Participants to whom Awards are to be granted;

(vii) To determine the type of Award and number of Shares or amount of cash to be made subject to each Award;

(viii) To prescribe the terms and conditions of each Award, including (without limitation) the Exercise Price and Purchase Price, and the vesting or duration of the Award (including accelerating the vesting of Awards, either at the time of the Award or thereafter, without the consent of the Participant), to determine whether an Option is to be classified as an ISO or as an NSO, and to specify the provisions of the agreement relating to such Award;

(ix) To amend any outstanding Award Agreement, subject to applicable legal restrictions and to the consent of the Participant if the Participant's rights or obligations would be materially impaired;

(x) To prescribe the consideration for the grant of each Award or other right under the Plan and to determine the sufficiency of such consideration;

(xi) To determine the disposition of each Award or other right under the Plan in the event of a Participant's divorce or dissolution of marriage;

(xii) To determine whether Awards under the Plan will be granted in replacement of other grants under an incentive or other compensation plan of an acquired business;

(xiii) To correct any defect, supply any omission, or reconcile any inconsistency in the Plan or any Award Agreement;

(xiv) To establish or verify the extent of satisfaction of any performance goals or other conditions applicable to the grant, issuance, exercisability, vesting, and/or ability to retain any Award; and

(xv) To take any other actions deemed necessary or advisable for the administration of the Plan.

Subject to the requirements of applicable law, the Committee may designate persons other than members of the Committee to carry out its responsibilities and may prescribe such conditions and limitations as it may deem appropriate, except that the Committee may not delegate its authority with regard to the selection for participation of or the granting of Awards under the Plan to persons subject to Section 16 of the Exchange Act. All decisions, interpretations and other actions of the Committee shall be final and binding on all Participants and all persons deriving their rights from a Participant. No member of the Committee shall be liable for any action that such member of the Committee has taken or has failed to take in good faith with respect to the Plan or any Award under the Plan.

SECTION 4. ELIGIBILITY.

(a) *General Rule*. The Committee will select Participants from among Employees, Consultants and Outside Directors. Eligibility for ISOs is limited to individuals described in the first sentence of this Section 4(a) who are employees of the Company or of a "parent corporation" or "subsidiary corporation" of the Company as those terms are defined in Section 424 of the Code. Eligibility for Stock Options, other than ISOs, and SARs is limited to individuals described in the first sentence of this Section 4(a) who are providing direct services on the date of grant of the Award to the Company or to a subsidiary of the Company that would be described in the first sentence of Section 1.409A-1(b)(5)(iii)(E) of the United States Treasury Regulations.

(b) *Ten-Percent Shareholders*. An Employee who owns more than ten percent (10%) of the total combined voting power of all classes of outstanding stock of the Company, a Parent or Subsidiary shall not be eligible for the grant of an ISO unless such grant satisfies the requirements of Section 422(c)(5) of the Code.

(c) *Attribution Rules*. For purposes of Section 4(b) above, in determining stock ownership, an Employee shall be deemed to own the stock owned, directly or indirectly, by or for such Employee's brothers, sisters, spouse, ancestors, and lineal descendants. Stock owned, directly or indirectly, by or for a corporation, partnership, estate, or trust shall be deemed to be owned proportionately by or for its shareholder, partners, or beneficiaries.

(d) *Outstanding Stock*. For purposes of Section 4(b) above, "outstanding stock" shall include all stock actually issued and outstanding immediately after the grant. "Outstanding

stock" shall not include Shares authorized for issuance under outstanding options held by the Employee or by any other person.

SECTION 5. STOCK SUBJECT TO PLAN; OUTSIDE DIRECTOR COMPENSATION LIMIT.

(a) *Basic Limitation*. Shares offered under the Plan shall be authorized but unissued shares or treasury shares. The maximum aggregate number of Shares authorized for issuance as Awards under the Plan shall not exceed (i) 3,425,278 Shares (the "**Share Reserve**"), plus (ii) the sum of any Returning Shares which become available from time to time, plus (iii) the number of reserved Shares not issued or subject to outstanding grants under the 2014 Plan on the Effective Date, plus (iv) an annual increase on the first day of each calendar year for a period of not more than ten years beginning on January 1, 2025 and ending on (and including) January 1, 2034, in an amount equal to (x) three percent (3%) of the total number of Shares outstanding on the last day of the immediately preceding calendar year or (y) such lesser amount (including zero) that the Committee or Board determines for purposes of the annual increase for that calendar year. Notwithstanding the foregoing, the number of Shares that may be delivered in the aggregate pursuant to the exercise of ISOs granted under the Plan shall not exceed five (5) times the number of Shares provided under clause (i) above plus, to the extent allowable under Section 422 of the Code, any Shares that become available for issuance under the Plan pursuant to Section 5(b), but nothing in this Section 5 will be construed as requiring that any, or any fixed number of, ISOs be awarded under the Plan. The limitations of this Section 5(a) shall be subject to adjustment pursuant to Section 12. The number of Shares that are subject to Awards outstanding at any time under the Plan shall not exceed the number of Shares which then remain available for issuance under the Plan. The Company shall at all times reserve and keep available sufficient Shares to satisfy the requirements of the Plan.

(b) *Additional Shares*. If Restricted Shares or Shares issued upon the exercise of options are forfeited, then such Shares shall again become available for Awards under the Plan. If Stock Units, Options, or SARs are forfeited or terminate for any reason before being exercised or settled, or an Award is settled in cash without the delivery of Shares to the holder, then the corresponding Shares shall again become available for Awards under the Plan. If Stock Units or SARs are settled, then only the number of Shares (if any) actually issued in settlement of such Stock Units or SARs shall reduce the number available in Section 5(a) and the balance (including any Shares withheld to satisfy tax withholding obligations) shall again become available for Awards under the Plan. Any Shares withheld to satisfy the Exercise Price or tax withholding obligation pursuant to any Award of Options or SARs shall be added back to the Shares available for Awards under the Plan. Notwithstanding the foregoing provisions of this Section 5(b), Shares that have actually been issued shall not again become available for Awards under the Plan except for Shares that are forfeited and do not become vested.

(c) *Substitution and Assumption of Awards*. The Committee may make Awards under the Plan by assumption, substitution, or replacement of stock options, stock appreciation rights, stock units, or similar awards granted by another entity (including a Parent or Subsidiary), if such assumption, substitution, or replacement is in connection with an asset acquisition, stock acquisition, merger, consolidation, or similar transaction involving the Company (and/or its Parent or Subsidiary) and such other entity (and/or its affiliate). The terms of such assumed,

substituted, or replaced Awards shall be as the Committee, in its discretion, determines is appropriate, notwithstanding limitations on Awards in the Plan. Any such substitute or assumed Awards shall not count against the Share limitation set forth in Section 5(a) (nor shall Shares subject to such Awards be added to the Shares available for Awards under the Plan as provided in Section 5(b) above), except that Shares acquired by exercise of substitute ISOs will count against the maximum number of Shares that may be issued pursuant to the exercise of ISOs under the Plan.

(d) *Outside Director Compensation Limit*. The maximum number of Shares subject to Awards granted under the Plan during any one calendar year to any Outside Director taken together with any cash fees paid by the Company to such Outside Director during such calendar year for service on the Board (other than the calendar year in which an Outside Director commences service on the Board), will not exceed seven hundred and fifty thousand dollars ($750,000) in total value (calculating the value of any such Awards based on the grant date fair value of such Awards for financial reporting purposes), or, with respect to the calendar year in which an Outside Director is first appointed or elected to the Board, one million dollars ($1,000,000).

SECTION 6. RESTRICTED SHARES.

(a) *Restricted Share Award Agreement*. Each grant of Restricted Shares under the Plan shall be evidenced by a Restricted Share Award Agreement between the Participant and the Company. Such Restricted Shares shall be subject to all applicable terms of the Plan and may be subject to any other terms that are not inconsistent with the Plan. The provisions of the various Restricted Share Award Agreements entered into under the Plan need not be identical.

(b) *Payment for Awards*. Restricted Shares may be sold or awarded under the Plan for such consideration as the Committee may determine, including (without limitation) cash, cash equivalents, full-recourse promissory notes, past services, and future services.

(c) *Vesting*. Each Award of Restricted Shares may or may not be subject to vesting. Vesting shall occur, in full or in installments, upon satisfaction of the conditions specified in the Restricted Share Award Agreement. A Restricted Share Award Agreement may provide for accelerated vesting in the event of the Participant's death, Disability or retirement or other events. The Committee may determine, at the time of granting Restricted Shares or thereafter, that all or part of such Restricted Shares shall become vested in the event that a Change in Control occurs with respect to the Company.

(d) *Voting and Dividend Rights*. A holder of Restricted Shares awarded under the Plan shall have the same voting, dividend, and other rights as the Company's other shareholder, except that in the case of any unvested Restricted Shares, the holder shall not be entitled to any dividends or other distributions paid or distributed by the Company in respect of outstanding Shares. Notwithstanding the foregoing, at the Committee's discretion, the holder of unvested Restricted Shares may be credited with such dividends and other distributions, provided that such dividends and other distributions shall be paid or distributed to the holder only if, when and to the extent such unvested Restricted Shares vest. The value of dividends and other distributions

payable or distributable with respect to any unvested Restricted Shares that do not vest shall be forfeited. At the Committee's discretion, the Restricted Share Award Agreement may require that the holder of Restricted Shares invest any cash dividends received in additional Restricted Shares. Such additional Restricted Shares shall be subject to the same conditions as the Award with respect to which the dividend was paid. For the avoidance of doubt, other than with respect to the right to receive dividends and other distributions, the holders of unvested Restricted Shares shall have the same voting rights and other rights as the Company's other shareholder in respect of such unvested Restricted Shares.

(e) *Restrictions on Transfer of Shares*. Restricted Shares shall be subject to such rights of repurchase, rights of first refusal, or other restrictions as the Committee may determine. Such restrictions shall be set forth in the applicable Restricted Share Award Agreement and shall apply in addition to any general restrictions that may apply to all holders of Shares.

SECTION 7. TERMS AND CONDITIONS OF OPTIONS.

(a) *Stock Option Award Agreement*. Each grant of an Option under the Plan shall be evidenced by a Stock Option Award Agreement between the Participant and the Company. Such Option shall be subject to all applicable terms and conditions of the Plan and may be subject to any other terms and conditions which are not inconsistent with the Plan and which the Committee deems appropriate for inclusion in a Stock Option Award Agreement. The Stock Option Award Agreement shall specify whether the Option is an ISO or an NSO. The provisions of the various Stock Option Award Agreements entered into under the Plan need not be identical.

(b) *Number of Shares*. Each Stock Option Award Agreement shall specify the number of Shares that are subject to the Option and shall provide for the adjustment of such number in accordance with Section 12.

(c) *Exercise Price*. Each Stock Option Award Agreement shall specify the Exercise Price. The Exercise Price of an ISO shall not be less than one hundred percent (100%) of the Fair Market Value of a Share on the date of grant (one hundred and ten percent (110%) for ISOs granted to Employees described in Section 4(b)), and the Exercise Price of an NSO shall not be less than one hundred percent (100%) of the Fair Market Value of a Share on the date of grant. Notwithstanding the foregoing, Options may be granted with an Exercise Price of less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant pursuant to a transaction described in, and in a manner consistent with, Section 424(a) of the Code. Subject to the foregoing in this Section 7(c), the Exercise Price under any Option shall be determined by the Committee in its sole discretion. The Exercise Price shall be payable in one of the forms described in Section 8.

(d) *Withholding Taxes*. As a condition to the exercise of an Option, the Participant shall make such arrangements as the Committee may require for the satisfaction of any federal, state, local or foreign withholding tax obligations that may arise in connection with such exercise. The Participant shall also make such arrangements as the Committee may require for the satisfaction of any federal, state, local or foreign withholding tax obligations that may arise in connection with the disposition of Shares acquired by exercising an Option.

(e) *Exercisability and Term*. Each Stock Option Award Agreement shall specify the date when all or any installment of the Option is to become exercisable. The Stock Option Award Agreement shall also specify the term of the Option; provided that the term of an option shall in no event exceed ten (10) years from the date of grant (five (5) years for ISOs granted to Employees described in Section 4(b)). A Stock Option Award Agreement may provide for accelerated exercisability in the event of the Participant's death, Disability, or retirement or other events and may provide for expiration prior to the end of its term in the event of the termination of the Participant's Service. Options may be awarded in combination with SARs, and such an Award may provide that the Options will not be exercisable unless the related SARs are forfeited. Subject to the foregoing in this Section 7(e), the Committee in its sole discretion shall determine when all or any installment of an Option is to become exercisable and when an Option is to expire.

(f) *Exercise of Options*. Each Stock Option Award Agreement shall set forth the extent to which the Participant shall have the right to exercise the Option following termination of the Participant's Service with the Company and its Subsidiaries, and the right to exercise the Option of any executors or administrators of the Participant's estate or any person who has acquired such Option(s) directly from the Participant by bequest or inheritance. Such provisions shall be determined in the sole discretion of the Committee, need not be uniform among all Options issued pursuant to the Plan, and may reflect distinctions based on the reasons for termination of Service.

(g) *Effect of Change in Control*. The Committee may determine, at the time of granting an Option or thereafter, that such Option shall become exercisable as to all or part of the Shares subject to such Option in the event that a Change in Control occurs with respect to the Company.

(h) *No Rights as a Stockholder*. A Participant shall have no rights as a stockholder with respect to any Shares covered by an Option or other Award until the date of issuance of a stock certificate or other evidence of ownership for such Shares or until the Participant's ownership of such Shares shall have been entered into the books of the registrar in the case of uncertificated shares. No adjustments shall be made, except as provided in Section 12.

(i) *Modification, Extension and Renewal of Options*. Within the limitations of the Plan, the Committee may modify, extend, or renew outstanding options or may accept the cancellation of outstanding options (to the extent not previously exercised), whether or not granted hereunder, in return for the grant of new Options for the same or a different number of Shares and at the same or a different Exercise Price, or in return for the grant of a different Award for the same or a different number of Shares or for cash. The foregoing notwithstanding, no modification of an Option shall, without the consent of the Participant, materially impair the Participant's rights or obligations under such Option; provided, however, that an amendment or modification that may cause an ISO to become an NSO, and any amendment or modification that is required to comply with the rules applicable to ISOs, shall not be treated as materially impairing the rights or obligations of the Participant.

(j) *Restrictions on Transfer of Shares*. Any Shares issued upon exercise of an Option shall be subject to such special forfeiture conditions, rights of repurchase, rights of first refusal, and other transfer restrictions as the Committee may determine. Such restrictions shall be set forth in the applicable Stock Option Award Agreement and shall apply in addition to any general restrictions that may apply to all holders of Shares.

(k) *Buyout Provisions*. The Committee may at any time (i) offer to buy out for a payment in cash or cash equivalents an Option previously granted or (ii) authorize a Participant to elect to cash out an Option previously granted, in either case at such time and based upon such terms and conditions as the Committee shall establish.

SECTION 8. PAYMENT FOR SHARES.

(a) *General Rule*. The entire Exercise Price or Purchase Price of Shares issued under the Plan shall be payable in lawful money of the United States of America at the time when such Shares are purchased, except as provided in Section 8(b) through Section 8(h) below.

(b) *Surrender of Stock*. To the extent that a Stock Option Award Agreement so provides, payment may be made all or in part by surrendering, or attesting to the ownership of, Shares which have already been owned by the Participant or the Participant's representative. Such Shares shall be valued at their Fair Market Value on the date when the new Shares are purchased under the Plan. The Participant shall not surrender, or attest to the ownership of, Shares in payment of the Exercise Price if such action would cause the Company to recognize compensation expense (or additional compensation expense) with respect to the Option for financial reporting purposes.

(c) *Services Rendered*. At the discretion of the Committee, Shares may be awarded under the Plan in consideration of services rendered to the Company or a Subsidiary. If Shares are awarded without the payment of a Purchase Price in cash, the Committee shall make a determination (at the time of the Award) of the value of the services rendered by the Participant and the sufficiency of the consideration to meet the requirements of Section 6(b).

(d) *Cashless Exercise*. To the extent that a Stock Option Award Agreement so provides, if the Stock is traded on an established securities market, payment may be made all or in part by delivery (on a form prescribed by the Committee) of an irrevocable direction to a securities broker to sell Shares and to deliver all or part of the sale proceeds to the Company in payment of the aggregate Exercise Price.

(e) *Exercise/Pledge*. To the extent that a Stock Option Award Agreement so provides, payment may be made all or in part by delivery (on a form prescribed by the Committee) of an irrevocable direction to a securities broker or lender to pledge Shares, as security for a loan, and to deliver all or part of the loan proceeds to the Company in payment of the aggregate Exercise Price.

(f) *Net Exercise*. To the extent that a Stock Option Award Agreement so provides, by a "net exercise" arrangement pursuant to which the number of Shares issuable upon exercise

of the Option shall be reduced by the largest whole number of Shares having an aggregate Fair Market Value that does not exceed the aggregate Exercise Price (plus tax withholdings, if applicable) and any remaining balance of the aggregate Exercise Price (and/or applicable tax withholdings) not satisfied by such reduction in the number of whole Shares to be issued shall be paid by the Participant in cash or any other form of payment permitted under the Stock Option Award Agreement.

(g) *Promissory Note*. To the extent that a Stock Option Award Agreement or Restricted Share Award Agreement so provides, payment may be made all or in part by delivering (on a form prescribed by the Company) a full-recourse promissory note.

(h) *Other Forms of Payment*. To the extent that a Stock Option Award Agreement or Restricted Share Award Agreement so provides, payment may be made in any other form that is consistent with applicable laws, regulations, and rules.

(i) *Limitations under Applicable Law*. Notwithstanding anything herein or in a Stock Option Award Agreement or Restricted Share Award Agreement to the contrary, payment may not be made in any form that is unlawful, as determined by the Committee in its sole discretion.

SECTION 9. STOCK APPRECIATION RIGHTS.

(a) *SAR Award Agreement*. Each grant of a SAR under the Plan shall be evidenced by a SAR Award Agreement between the Participant and the Company. Such SAR shall be subject to all applicable terms of the Plan and may be subject to any other terms that are not inconsistent with the Plan. The provisions of the various SAR Award Agreements entered into under the Plan need not be identical.

(b) *Number of Shares*. Each SAR Award Agreement shall specify the number of Shares to which the SAR pertains and shall provide for the adjustment of such number in accordance with Section 12.

(c) *Exercise Price*. Each SAR Award Agreement shall specify the Exercise Price. The Exercise Price of a SAR shall not be less than one hundred percent (100%) of the Fair Market Value of a Share on the date of grant. Notwithstanding the foregoing, SARs may be granted with an Exercise Price of less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant pursuant to a transaction described in, and in a manner consistent with, Section 424(a) of the Code. Subject to the foregoing in this Section 9(c), the Exercise Price under any SAR shall be determined by the Committee in its sole discretion.

(d) *Exercisability and Term*. Each SAR Award Agreement shall specify the date when all or any installment of the SAR is to become exercisable. The SAR Award Agreement shall also specify the term of the SAR provided that the term of the SAR shall in no event exceed ten (10) years from the date of grant. A SAR Award Agreement may provide for accelerated exercisability in the event of the Participant's death, Disability, retirement, or other events and may provide for expiration prior to the end of its term in the event of the termination of the Participant's Service. SARs may be awarded in combination with Options, and such an Award

may provide that the SARs will not be exercisable unless the related Options are forfeited. A SAR may be included in an ISO only at the time of grant but may be included in an NSO at the time of grant or thereafter. A SAR granted under the Plan may provide that it will be exercisable only in the event of a Change in Control.

(e) *Effect of Change in Control*. The Committee may determine, at the time of granting a SAR or thereafter, that such SAR shall become fully exercisable as to all Shares subject to such SAR in the event that a Change in Control occurs with respect to the Company.

(f) *Exercise of SARs*. Upon exercise of a SAR, the Participant (or any person having the right to exercise the SAR after the Participant's death) shall receive from the Company (i) Shares, (ii) cash or (iii) a combination of Shares and cash, as the Committee shall determine. The amount of cash and/or the Fair Market Value of Shares received upon exercise of SARs shall, in the aggregate, be equal to the amount by which the Fair Market Value (on the date of surrender) of the Shares subject to the SARs exceeds the Exercise Price.

(g) *Modification, Extension or Assumption of SARs*. Within the limitations of the Plan, the Committee may modify, extend, or assume outstanding SARs or may accept the cancellation of outstanding SARs (whether granted by the Company or by another issuer) in return for the grant of new SARs for the same or a different number of Shares and at the same or a different Exercise Price, or in return for the grant of a different Award for the same or a different number of Shares or cash. The foregoing notwithstanding, no modification of a SAR shall, without the consent of the holder, materially impair the Participant's rights or obligations under such SAR.

(h) *Buyout Provisions*. The Committee may at any time (i) offer to buy out for a payment in cash or cash equivalents a SAR previously granted, or (ii) authorize a Participant to elect to cash out a SAR previously granted, in either case at such time and based upon such terms and conditions as the Committee shall establish.

SECTION 10. STOCK UNITS.

(a) *Stock Unit Award Agreement*. Each grant of Stock Units under the Plan shall be evidenced by a Stock Unit Award Agreement between the Participant and the Company. Such Stock Units shall be subject to all applicable terms of the Plan and may be subject to any other terms that are not inconsistent with the Plan. The provisions of the various Stock Unit Award Agreements entered into under the Plan need not be identical.

(b) *Payment for Awards*. To the extent that an Award is granted in the form of Stock Units, no cash consideration shall be required of the Award recipients.

(c) *Vesting Conditions*. Each Award of Stock Units may or may not be subject to vesting. Vesting shall occur, in full or in installments, upon satisfaction of the conditions specified in the Stock Unit Award Agreement. A Stock Unit Award Agreement may provide for accelerated vesting in the event of the Participant's death, Disability, retirement, or other events. The Committee may determine, at the time of granting Stock Units or thereafter, that all or part

of such Stock Units shall become vested in the event that a Change in Control occurs with respect to the Company.

(d) *Voting and Dividend Rights*. The holders of Stock Units shall have no voting rights. Prior to settlement or forfeiture, any Stock Unit awarded under the Plan may, at the Committee's discretion, carry with it a right to dividend equivalents. Such right, if awarded, entitles the holder to be credited with an amount equal to all cash dividends paid on one Share while the Stock Unit is outstanding. Settlement of dividend equivalents may be made in the form of cash, in the form of Shares, or in a combination of both. Dividend equivalents may also be converted into additional Stock Units at the Committee's discretion. Dividend equivalents shall not be distributed prior to settlement of the Stock Unit to which the dividend equivalents pertain. Prior to distribution, any dividend equivalents shall be subject to the same conditions and restrictions (including without limitation, any forfeiture conditions) as the Stock Units to which they attach. The value of dividend equivalents payable or distributable with respect to any unvested Stock Units that do not vest shall be forfeited. Any entitlement to dividend equivalents or similar entitlements will be established and administered either consistent with an exemption from, or in compliance with, the applicable requirements of Section 409A to the extent applicable to the Participant.

(e) *Form and Time of Settlement of Stock Units*. Settlement of vested Stock Units may be made in the form of (i) cash, (ii) Shares or (iii) any combination of both, as determined by the Committee. The actual number of Stock Units eligible for settlement may be larger or smaller than the number included in the original Award, based on predetermined performance factors. Methods of converting Stock Units into cash may include (without limitation) a method based on the average Fair Market Value of Shares over a series of trading days. A Stock Unit Award Agreement may provide that vested Stock Units may be settled in a lump sum or in installments. A Stock Unit Award Agreement may provide that the distribution may occur or commence when all vesting conditions applicable to the Stock Units have been satisfied or have lapsed, or it may be deferred to any later date, subject to compliance with Section 409A, to the extent applicable. The amount of a deferred distribution may be increased by an interest factor or by dividend equivalents. Until an Award of Stock Units is settled, the number of such Stock Units shall be subject to adjustment pursuant to Section 12.

(f) *Death of Participant*. Any Stock Unit Award that becomes payable after the Participant's death shall be distributed to the Participant's beneficiary or beneficiaries, provided the Committee has permitted the designation of a beneficiary and such beneficiary has been designated prior to the Participant's death in a form acceptable to the Committee. Each recipient of a Stock Unit Award under the Plan shall designate one or more beneficiaries for this purpose by filing the prescribed form with the Company, provided the Committee has permitted the designation of beneficiaries. A beneficiary designation may be changed by filing the prescribed form with the Company at any time before the Participant's death. If the Committee has not permitted the designation of a beneficiary, if no beneficiary was designated or if no designated beneficiary survives the Participant, then any Stock Units Award that becomes payable after the Participant's death shall be distributed to the Participant's estate.

(g) *Creditors' Rights*. A holder of Stock Units shall have no rights other than those of a general creditor of the Company. Stock Units represent an unfunded and unsecured obligation of the Company subject to the terms and conditions of the applicable Stock Unit Award Agreement.

SECTION 11. CASH-BASED AWARDS AND STOCK BASED AWARDS.

The Committee may, in its sole discretion, grant Cash-Based Awards and Stock-Based Awards to any Participant in such number or amount and upon such terms, and subject to such conditions, as the Committee shall determine at the time of grant and specify in an applicable Award Agreement. The Committee shall determine the maximum duration of the Cash-Based Award or Stock-Based Awards, the amount of cash which may be payable pursuant to the Cash-Based Award, the conditions upon which the Cash-Based Award or Stock-Based Awards shall become vested or payable, and such other provisions as the Committee shall determine. Each Cash-Based Award shall specify a cash-denominated payment amount, formula, or payment ranges as determined by the Committee. Payment, if any, with respect to a Cash-Based Award or Stock-Based Award shall be made in accordance with the terms of the Award and may be made in cash or in Shares, as the Committee determines.

SECTION 12. ADJUSTMENT OF SHARES.

(a) *Adjustments*.

(i) Recapitalization Transactions. In the event of a subdivision of the outstanding Stock, a declaration of a dividend payable in Shares, a declaration of a dividend payable in a form other than Shares in an amount that has a material effect on the price of Shares, a combination or consolidation of the outstanding Stock (by reclassification or otherwise) into a lesser number of Shares, a recapitalization, a spin-off or a similar occurrence, the Committee shall make appropriate and equitable adjustments in:

(A) The class(es) and number of securities available for future Awards and the limitations set forth under Section 5;

(B) The class(es) and number of securities covered by each outstanding Award; and

(C) The Exercise Price under each outstanding Option and SAR.

(ii) Other adjustments. In the event of other transactions, the Committee may make such changes as provided in subsection (a) herein, as it determines are necessary or appropriate to avoid distortion in the operation of the Plan.

(iii) Committee's Authority. The Committee's determinations will be final, binding and conclusive.

(b) *Dissolution or Liquidation*. To the extent not previously exercised or settled, Options, SARs, and Stock Units shall terminate immediately prior to the dissolution or liquidation of the Company.

(c) *Merger or Reorganization*. In the event that the Company is a party to a merger or other reorganization, outstanding Awards shall be subject to the agreement of merger or reorganization. Such agreement may provide for, without limitation, one or more of the following:

(i) The continuation of the outstanding Awards by the Company, if the Company is a surviving corporation;

(ii) The assumption of the outstanding Awards by the surviving corporation or its parent or subsidiary;

(iii) The substitution by the surviving corporation or its parent or subsidiary of its own awards for the outstanding Awards;

(iv) Immediate vesting, exercisability, or settlement of outstanding Awards followed by the cancellation of such Awards upon or immediately prior to the effectiveness of such transaction;

(v) Cancellation of the Award, to the extent not vested or not exercised prior to the effective time of the merger or reorganization, in exchange for such cash or equity consideration (including no consideration) as the Committee, in its sole discretion, may consider appropriate; or

(vi) Settlement of the intrinsic value of the outstanding Awards (whether or not then vested or exercisable) in cash or cash equivalents or equity (including cash or equity subject to deferred vesting and delivery consistent with the vesting restrictions applicable to such Awards or the underlying Shares) followed by the cancellation of such Awards (and, for the avoidance of doubt, if as of the date of the occurrence of the transaction the Committee determines in good faith that no amount would have been attained upon the exercise of such Award or realization of the Participant's rights, then such Award may be terminated by the Company without payment), provided that any such amount may be delayed to the same extent that payment of consideration to the holders of Stock in connection with the merger or reorganization is delayed as a result of escrows, earnouts, holdbacks or other contingencies;

in each case without the Participant's consent. Any acceleration of payment of an amount that is subject to Section 409A will be delayed, if necessary, until the earliest time that such payment

would be permissible under Section 409A without triggering any additional taxes applicable under Section 409A. Any actions hereunder will comply with, or be exempt from, Section 409A to the extent determined by the Committee to be reasonably practicable.

The Company will have no obligation to treat all Awards, all Awards held by a Participant, or all Awards of the same type, similarly.

(d) *Reservation of Rights*. Except as provided in this Section 12, a Participant shall have no rights by reason of any subdivision or consolidation of Shares of stock of any class, the payment of any dividend or any other increase or decrease in the number of Shares of stock of any class. Any issue by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall not affect, and no adjustment by reason thereof shall be made with respect to, the number or Exercise Price of Shares subject to an Award. The grant of an Award pursuant to the Plan shall not affect in any way the right or power of the Company to make adjustments, reclassifications, reorganizations, or changes of its capital or business structure, to merge or consolidate or to dissolve, liquidate, sell, or transfer all or any part of its business or assets. In the event of any potential change affecting the Shares or the Exercise Price of Shares subject to an Award, including a merger or other reorganization, for reasons of administrative convenience, the Company in its sole discretion may refuse to permit the exercise of any Award during a period of up to thirty (30) days prior to the occurrence of such event.

SECTION 13. DEFERRAL OF AWARDS.

(a) *Committee Powers*. Subject to compliance with Section 409A, the Committee (in its sole discretion) may permit or require a Participant to:

(i) Have cash that otherwise would be paid to such Participant as a result of the exercise of a SAR or the settlement of Stock Units credited to a deferred compensation account established for such Participant by the Committee as an entry on the Company's books;

(ii) Have Shares that otherwise would be delivered to such Participant as a result of the exercise of an Option or SAR converted into an equal number of Stock Units; or

(iii) Have Shares that otherwise would be delivered to such Participant as a result of the exercise of an Option or SAR or the settlement of Stock Units converted into amounts credited to a deferred compensation account established for such Participant by the Committee as an entry on the Company's books.

Such amounts shall be determined by reference to the Fair Market Value of such Shares as of the date when they otherwise would have been delivered to such Participant.

(b) *General Rules*. A deferred compensation account established under this Section 13 may be credited with interest or other forms of investment return, as determined by the

Committee. A Participant for whom such an account is established shall have no rights other than those of a general creditor of the Company. Such an account shall represent an unfunded and unsecured obligation of the Company and shall be subject to the terms and conditions of the applicable agreement between such Participant and the Company. If the deferral or conversion of Awards is permitted or required, the Committee (in its sole discretion) may establish rules, procedures, and forms pertaining to such Awards, including (without limitation) the settlement of deferred compensation accounts established under this Section 13.

SECTION 14. AWARDS UNDER OTHER PLANS.

The Company may grant awards under other plans or programs. Such awards may be settled in the form of Shares issued under the Plan. Such Shares shall be treated for all purposes under the Plan like Shares issued in settlement of Stock Units and shall, when issued, reduce the number of Shares available under Section 5.

SECTION 15. PAYMENT OF DIRECTOR'S FEES IN SECURITIES.

(a) *Effective Date*. No provision of this Section 15 shall be effective unless and until the Board has determined to implement such provision.

(b) *Elections to Receive NSOs, SARs, Restricted Shares, or Stock Units*. An Outside Director may elect to receive the Outside Director's annual retainer payments and/or meeting fees from the Company in the form of cash, NSOs, SARs, Restricted Shares, Stock Units, or a combination thereof, as determined by the Board. Alternatively, the Board may mandate payment in any of such alternative forms. Such NSOs, SARs, Restricted Shares, and Stock Units shall be issued under the Plan. An election under this Section 15 shall be filed with the Company on the prescribed form.

(c) *Number and Terms of NSOs, SARs, Restricted Shares or Stock Units*. The number of NSOs, SARs, Restricted Shares, or Stock Units to be granted to Outside Directors in lieu of annual retainers and meeting fees that would otherwise be paid in cash shall be calculated in a manner determined by the Board. The terms of such NSOs, SARs, Restricted Shares, or Stock Units shall also be determined by the Board.

SECTION 16. LEGAL AND REGULATORY REQUIREMENTS.

Shares shall not be issued under the Plan unless the issuance and delivery of such Shares complies with (or is exempt from) all applicable requirements of law, including (without limitation) the Securities Act, United States state securities laws and regulations, the regulations of any stock exchange on which the Company's securities may then be listed and any foreign securities, exchange control or other applicable laws, and the Company has obtained the approval or favorable ruling from any governmental agency which the Company determines is necessary or advisable. The Company shall not be liable to a Participant or other persons as to: (a) the non-issuance or sale of Shares as to which the Company has not obtained from any regulatory body having jurisdiction the authority deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares under the Plan; and (b) any tax consequences expected, but not

realized, by any Participant or other person due to the receipt, exercise or settlement of any Award granted under the Plan.

SECTION 17. TAXES.

(a) *Withholding Taxes*. To the extent required by applicable federal, state, local, or foreign law, a Participant or the Participant's successor shall make arrangements satisfactory to the Company for the satisfaction of any withholding tax obligations that arise in connection with the Plan. The Company shall not be required to issue any Shares or make any cash payment under the Plan until such obligations are satisfied.

(b) *Share Withholding*. The Committee may permit a Participant to satisfy all or part of the Participant's withholding or income tax obligations by having the Company withhold all or a portion of any Shares that otherwise would be issued to him or her or by surrendering all or a portion of any Shares that the Participant previously acquired. Such Shares shall be valued at their fair market value on the date when taxes otherwise would be withheld in cash. In no event may a Participant have Shares withheld that would otherwise be issued to him or her in excess of the number necessary to satisfy the maximum legally required tax withholding.

(c) *Section 409A*. Each Award that provides for "nonqualified deferred compensation" within the meaning of Section 409A shall be subject to such additional rules and requirements as specified by the Committee from time to time in order to comply with Section 409A. If any amount under such an Award is payable upon a "separation from service" (within the meaning of Section 409A) to a Participant who is then considered a "specified employee" (within the meaning of Section 409A), then no such payment shall be made prior to the date that is the earlier of (i) six (6) months and one day after the Participant's separation from service, or (ii) the Participant's death, but only to the extent such delay is necessary to prevent such payment from being subject to interest, penalties, and/or additional tax imposed pursuant to Section 409A. In addition, the settlement of any such Award may not be accelerated except to the extent permitted by Section 409A.

SECTION 18. TRANSFERABILITY.

Unless the agreement evidencing an Award (or an amendment thereto authorized by the Committee) expressly provides otherwise, no Award granted under the Plan, nor any interest in such Award, may be sold, assigned, conveyed, gifted, pledged, hypothecated, or otherwise transferred in any manner (prior to the vesting and lapse of any and all restrictions applicable to Shares issued under such Award), other than by will or the laws of descent and distribution; provided, however, that an ISO may be transferred or assigned only to the extent consistent with Section 422 of the Code. Any purported assignment, transfer, or encumbrance in violation of this Section 18 shall be void and unenforceable against the Company.

SECTION 19. PERFORMANCE BASED AWARDS.

The number of Shares or other benefits granted, issued, retained, and/or vested under an Award may be made subject to the attainment of performance goals. The Committee may utilize any performance criteria selected by it in its sole discretion to establish performance goals.

SECTION 20. RECOUPMENT.

In the event that the Company is required to prepare restated financial results owing to an executive officer's intentional misconduct or grossly negligent conduct, the Committee shall have the authority, to the extent permitted by applicable law, to require reimbursement or forfeiture to the Company of the amount of bonus or incentive compensation (whether cash-based or equity-based) such executive officer received during a fixed period, determined by the Committee, preceding the year the restatement is determined to be required, to the extent that such bonus or incentive compensation exceeds what the officer would have received based on an applicable restated performance measure or target. The Company will recoup incentive-based compensation from executive officers to the extent required under the Dodd-Frank Wall Street Reform and Consumer Protection Act and any rules, regulations and listing standards that may be issued under that act. Any right of recoupment under this provision will be in addition to, and not in lieu of, any other rights of recoupment that may be available to the Company. No recovery of compensation under any clawback policy or this Section 20 will be an event giving rise to a right to resign for "good reason" or "constructive termination" (or similar term) under any agreement with the Company or any of its Subsidiaries or Affiliates.

SECTION 21. NO EMPLOYMENT RIGHTS.

No provision of the Plan, nor any Award granted under the Plan, shall be construed to give any person any right to become, to be treated as, or to remain an Employee or Consultant. The Company and/or its Subsidiaries, as applicable, reserve the right to terminate any person's Service at any time and for any reason, with or without notice.

SECTION 22. DURATION AND AMENDMENTS.

(a) *Term of the Plan*. The Plan, as set forth herein, shall come into existence on the date of its adoption by the Board; provided, however, that no Award may be granted hereunder prior to the Effective Date. The Board may suspend or terminate the Plan at any time. No ISOs may be granted after the tenth anniversary of the earlier of (i) the date the Plan is adopted by the Board or (ii) the date the Plan is approved the shareholders of the Company.

(b) *Right to Amend the Plan*. The Board may amend the Plan at any time and from time to time. Rights and obligations under any Award granted before amendment of the Plan shall not be materially impaired by such amendment except with consent of the Participant. An amendment of the Plan shall be subject to the approval of the Company's shareholders only to the extent required by applicable laws, regulations or rules.

(c) *Effect of Termination*. No Awards shall be granted under the Plan after the termination thereof. The termination of the Plan shall not affect Awards previously granted under the Plan.

SECTION 23. AWARDS TO PARTICIPANTS OUTSIDE THE UNITED STATES.

Notwithstanding any provision of the Plan to the contrary, to comply with the laws in countries outside the United States in which the Company and its Subsidiaries and Affiliates operate or in which Participants work or reside, the Committee, in its sole discretion, will have the power and authority to: (i) determine which Participants outside the United States will be eligible to participate in the Plan; (ii) modify the terms and conditions of any Award granted to Participants outside the United States; (iii) establish sub-plans and modify exercise procedures and other terms and procedures and rules, to the extent such actions may be necessary or advisable, including adoption of rules, procedures or sub-plans applicable to particular Subsidiaries and Affiliates or Participants in particular locations; provided that no such sub-plans and/or modifications shall take precedence over Section 3 of the Plan or otherwise require stockholder approval; (iv) take any action, before or after an Award is granted, that it deems advisable to obtain approval or to facilitate compliance with any necessary local governmental regulatory exemptions or approvals and (v) impose conditions on the exercise, vesting, or settlement of Awards in order to minimize the Company's obligation with respect to tax equalization for Participants on assignments outside their home country. Without limiting the generality of the foregoing, the Committee is specifically authorized to adopt rules, procedures and sub-plans with provisions that limit or modify rights on eligibility to receive an Award under the Plan or on death, Disability, retirement or other termination of employment, available methods of exercise or settlement of an Award, payment of income tax, social insurance contributions and payroll taxes, the shifting of employer tax or social insurance contribution liability to a Participant, the withholding procedures and handling of any Share certificates or other indicia of ownership. Notwithstanding the foregoing, the Board will only take action and grant Awards that comply with applicable laws.

SECTION 24. GOVERNING LAW.

The Plan and each Award Agreement shall be governed by the laws of the State of Delaware in the United States of America without application of the conflicts of law principles thereof.

SECTION 25. SUCCESSORS AND ASSIGNS.

The terms of the Plan shall be binding upon and inure to the benefit of the Company and any successor entity, including any successor entity contemplated by Section 12(c).

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SECTION 26. EXECUTION.

To record the adoption of the Plan by the Board, the Company has caused its authorized officer to execute the same.

Silvaco Group, Inc.

By: _____
Name: _____
Title: _____

Date: _____

SILVACO GROUP, INC.

2024 EMPLOYEE STOCK PURCHASE PLAN

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SILVACO GROUP, INC.
2024 EMPLOYEE STOCK PURCHASE PLAN

SECTION 1. PURPOSE OF THE PLAN.

The Plan is effective on the date on which the registration statement covering the initial public offering of the Shares is declared effective by the United States Securities and Exchange Commission (the "**Effective Date**"). The purpose of the Plan is to provide a broad-based employee benefit to attract the services of new Eligible Employees, to retain the services of existing Eligible Employees, and to provide incentives for such individuals to exert maximum efforts toward the Company's success by purchasing Shares from the Company on favorable terms and to pay for such purchases through payroll deductions. The Plan is intended to qualify under Section 423 of the Code and to be exempt from the application and requirements of Section 409A of the Code, and is to be construed accordingly.

The Company intends to make two types of offerings under the Plan: offerings that are intended to qualify as an "employee stock purchase plan" under Section 423 of the Code and to be exempt from the application and requirements of Section 409A of the Code, and to be construed accordingly (each, a "Section 423 Offering") and offerings that are not intended to qualify as an "employee stock purchase plan" under Section 423 of the Code (each, a "Non-423 Offering"). The Section 423 Offerings will be construed so as to extend and limit Plan participation in a uniform and nondiscriminatory basis consistent with the requirements of Section 423 of the Code. An option to purchase shares of Common Stock under the Non-423 Offering will be granted pursuant to any rules, procedures, agreements, appendices or sub-plans adopted by the Committee designed to achieve tax, securities laws, or any other objectives. Except as otherwise provided herein, the Non-423 Offering will operate and be administered in the same manner as the Section 423 Offering.

SECTION 2. DEFINITIONS.

(a) "**Affiliate**" means any entity that, directly or indirectly through one or more intermediaries, controls, is controlled by or is under the common control with, the Company.

(b) "**Board**" means the Board of Directors of the Company, as constituted from time to time.

(c) "**Code**" means the United States Internal Revenue Code of 1986, as amended.

(d) "**Committee**" means the Compensation Committee of the Board or such other committee, comprised exclusively of one or more directors of the Company, as may be appointed by the Board from time to time to administer the Plan. To the extent a such a committee is not appointed by the Board to administer the Plan, references to "Committee" in this Plan shall refer to the Board.

(e) "**Company**" means Silvaco Group, Inc., a Delaware corporation, including any successor thereto.

(f) "**Compensation**" means, unless provided otherwise by the Committee in the terms and conditions of an Offering, base salary and wages paid in cash to a Participant by a Participating Company, without reduction for any pre-tax contributions made by the Participant under sections 401(k) or 125 of the Code. "Compensation" shall, unless provided otherwise by the Committee in the terms and conditions of an Offering, exclude variable compensation (including commissions, bonuses, incentive compensation, overtime pay and shift premiums), all non-cash items, moving or relocation allowances, cost-of-living equalization payments, car allowances, tuition reimbursements, imputed income attributable to cars or life insurance, severance pay, fringe benefits, contributions or benefits received under employee benefit plans, income attributable to the exercise of stock options or any other equity awards, and similar items. The Committee shall determine whether a particular item is included in Compensation. Further, the Committee shall have the discretion to determine the application of this definition to Participants outside the United States.

(g) "**Corporate Reorganization**" means:

(i) The consummation of a merger or consolidation of the Company with or into another entity, or any other corporate reorganization; or

(ii) The sale, transfer or other disposition of all or substantially all of the Company's assets or the complete liquidation or dissolution of the Company.

(h) "**Eligible Employee**" means any Employee of a Participating Company who meets the requirements set forth in the document(s) governing the Offering for eligibility to participate in the Offering, provided that such Employee also meets the requirements for eligibility to participate set forth in the Plan. The foregoing notwithstanding, an individual shall not be considered an Eligible Employee if such individual's participation in the Plan is prohibited by the law of any country which has jurisdiction over the employee.

(i) *"***Employee***"* means any person who is "employed" for purposes of Section 423(b)(4) of the Code by a Participating Company. However, service solely as a director, or payment of a fee for such services, will not cause a director to be considered an "Employee" for purposes of the Plan.

(j) "**Exchange Act**" means the United States Securities Exchange Act of 1934, as amended.

(k) "**Fair Market Value**" means the fair market value of a Share, determined as follows:

(i) If Shares were traded on any established national securities exchange, including the New York Stock Exchange or The Nasdaq Stock Market, on the date in question, then the Fair Market Value shall be equal to the closing price as quoted on such exchange (or the exchange with the greatest volume of trading with respect to the Shares) on such date as

reported in the Wall Street Journal or such other source as the Committee deems reliable; or

(ii) If the foregoing provision is not applicable, then the Fair Market Value shall be determined by the Committee in good faith on such basis as it deems appropriate.

The determination of fair market value for purposes of tax withholding may be made in the Committee's discretion subject to applicable law and is not required to be consistent with the determination of Fair Market Value for other purposes.

For any date that is not a Trading Day, the Fair Market Value of a Share for such date shall be determined by using the closing sale price for the immediately preceding Trading Day. Determination of the Fair Market Value pursuant to the foregoing provisions shall be conclusive and binding on all persons.

(l) "**Offering**" means the grant of options to purchase Shares under the Plan to Eligible Employees.

(m) "**Offering Date**" means the first day of an Offering.

(n) "**Offering Period**" means a period with respect to which the right to purchase Shares may be granted under the Plan, as determined pursuant to Section 4(a).

(o) "**Participant**" means an Eligible Employee who elects to participate in the Plan, as provided in Section 4(b).

(p) "**Participating Company**" means (i) the Company and (ii) each present or future Subsidiary or Affiliate designated by the Committee as a Participating Company. The Committee may so designate any Subsidiary or Affiliate, or revoke any such designation, at any time and from time to time, either before or after the Plan is approved by the shareholders, and may further designate such companies or Participants as participating in the 423 Component or the Non-423 Component. The Committee may also determine which Affiliates or Eligible Employees may be excluded from participation in the Plan, to the extent consistent with Section 423 of the Code or as implemented under a Non-423 Offering, and determine which Participating Company or Companies will participate in separate Offerings (to the extent that the Company makes separate Offerings). For purposes of Section 423 Offerings, only the Company and its Subsidiaries may be Participating Companies; provided, however, that at any given time, a Subsidiary that is a Participating Company in a Section 423 Offering will not be a Participating Company in a Non-423 Offering.

(q) *"***Plan***"* means this Silvaco Group, Inc. 2024 Employee Stock Purchase Plan, as it may be amended from time to time.

(r) "**Plan Account**" means the account established for each Participant pursuant to Section 8(a).

(s) "**Purchase Date**" means one or more dates during an Offering on which Shares may be purchased pursuant to the terms of the Offering.

(t) "**Purchase Period**" means one or more successive periods during an Offering, beginning on the Offering Date or on the day after a Purchase Date, and ending on the next succeeding Purchase Date.

(u) "**Purchase Price**" means the price at which Participants may purchase Shares under the Plan, as determined pursuant to Section 8(b).

(v) "**Shares**" means the common stock, par value $0.0001 per share, of the Company.

(w) "**Subsidiary**" means any corporation (other than the Company) in an unbroken chain of corporations beginning with the Company, if each of the corporations other than the last corporation in the unbroken chain owns stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain.

(x) "**Trading Day**" means a day on which the national stock exchange on which the Shares are traded is open for trading.

SECTION 3. ADMINISTRATION OF THE PLAN.

(a) *Administrative Powers and Responsibilities*. The Plan shall be administered by the Committee. The Committee shall have full power and authority, subject to the provisions of the Plan, to promulgate such rules and regulations as it deems necessary for the proper administration of the Plan, to interpret the provisions and supervise the administration of the Plan, and to take all action in connection therewith or in relation thereto as it deems necessary or advisable. Any decision reduced to writing and signed by all of the members of the Committee shall be fully effective as if it had been made at a meeting duly held. The Committee's determinations under the Plan, unless otherwise determined by the Board, shall be final and binding on all persons. The Company shall pay all expenses incurred in the administration of the Plan. No member of the Committee shall be personally liable for any action, determination, or interpretation made in good faith with respect to the Plan, and all members of the Committee shall be fully indemnified by the Company with respect to any such action, determination or interpretation. The Committee may adopt such rules, guidelines and forms as it deems appropriate to implement the Plan. Subject to the requirements of applicable law, the Committee may designate persons other than members of the Committee to carry out its responsibilities and may prescribe such conditions and limitations as it may deem appropriate. All decisions, interpretations and other actions of the Committee shall be final and binding on all Participants and all persons deriving their rights from a Participant. No member of the Committee shall be liable for any action that he has taken or has failed to take in good faith with respect to the Plan. Notwithstanding anything to the contrary in the Plan, the Board may, in its sole discretion, at any time and from time to time, resolve to administer the Plan. In such event, the Board shall have all of the authority and responsibility granted to the Committee herein.

(b) *International Administration*. The Committee may establish sub-plans (which need not qualify under Section 423 of the Code) and initiate separate Offerings for the purpose of (i) facilitating participation in the Plan by non-U.S. employees in compliance with foreign laws and regulations without affecting the qualification of the remainder of the Plan under Section 423 of the Code or (ii) qualifying the Plan for preferred tax treatment under foreign tax laws (which sub-plans, at the Committee's discretion, may provide for allocations of the authorized shares reserved for issue under the Plan as set forth in Section 14(a)). The rules, guidelines and forms of such sub-plans (or the Offerings thereunder) may take precedence over other provisions of the Plan, with the exception of Section 4(a)(i), Section 5(b), Section 8(b) and Section 14(a), but unless otherwise superseded by the terms of such sub-plan, the provisions of the Plan shall govern the operation of such sub-plan. Alternatively and in order to comply with the laws of a foreign jurisdiction, the Committee shall have the power, in its discretion, to grant options in an Offering to citizens or residents of a non-U.S. jurisdiction (without regard to whether they are also citizens of the United States or resident aliens) that provide terms which are less favorable than the terms of options granted under the same Offering to employees resident in the United States, subject to compliance with Section 423 of the Code.

SECTION 4. ENROLLMENT AND PARTICIPATION.

(a) *Offering Periods*. While the Plan is in effect, the Committee may from time to time grant options to purchase Shares pursuant to the Plan to Eligible Employees during a specified Offering Period. Each such Offering shall be in such form and shall contain such terms and conditions as the Committee shall determine, subject to compliance with the terms and conditions of the Plan (which may be incorporated by reference) and, as applicable, the requirements of Section 423 of the Code, including the requirement that all Eligible Employees participating in each Section 423 Offering have the same rights and privileges. The Committee shall specify prior to the commencement of each Offering (i) the period during which the Offering shall be effective, which may not exceed twenty-seven (27) months from the Offering Date and may include one or more successive Purchase Periods within the Offering, (ii) the Purchase Dates and Purchase Price for Shares which may be purchased pursuant to the Offering, and (iii) if applicable, any limits on the number of Shares purchasable by a Participant, or by all Participants in the aggregate, during any Offering Period or, if applicable, Purchase Period, in each case consistent with the limitations of the Plan. The Committee shall have the discretion to provide for the automatic termination of an Offering following any Purchase Date on which the Fair Market Value of a Share is equal to or less than the Fair Market Value of a Share on the Offering Date, and for the Participants in the terminated Offering to be automatically re-enrolled in a new Offering that commences immediately after such Purchase Date. The terms and conditions of each Offering need not be identical, and shall be deemed incorporated by reference and made a part of the Plan.

(b) *Enrollment*. Any individual who, on the day preceding the first day of an Offering Period, qualifies as an Eligible Employee may elect to become a Participant in the Plan for such Offering Period by completing the enrollment process prescribed and communicated for this purpose from time to time by the Company to Eligible Employees.

(c) *Duration of Participation*. Once enrolled in the Plan, a Participant shall continue to participate in the Plan until the Participant ceases to be an Eligible Employee or withdraws from the Plan under Section 6(a). A Participant who withdrew from the Plan under Section 6(a) may again become a Participant, if the Participant then is an Eligible Employee, by following the procedure described in Subsection (b) above. A Participant whose employee contributions were discontinued automatically under Section 9(b) shall automatically resume participation at the beginning of the earliest Offering Period ending in the next calendar year, if the Participant then is an Eligible Employee. Except as otherwise provided in the terms and conditions of an Offering, when a Participant reaches the end of an Offering Period but the Participant's participation is to continue, then such Participant shall automatically be re-enrolled for the Offering Period that commences immediately after the end of the prior Offering Period.

SECTION 5. EMPLOYEE CONTRIBUTIONS.

(a) *Frequency of Payroll Deductions*. A Participant may purchase Shares under the Plan solely by means of payroll deductions; provided, however, that to the extent provided in the terms and conditions of an Offering, a Participant may also make contributions through payment by cash or check prior to one or more Purchase Dates during the Offering. Payroll deductions, subject to the provisions of Subsection (b) below or as otherwise provided under the terms and conditions of an Offering, shall occur on each payday during participation in the Plan.

(b) *Amount of Payroll Deductions*. An Eligible Employee shall designate during the enrollment process the portion of the Eligible Employee's Compensation that the Eligible Employee elects to have withheld for the purchase of Shares. Such portion shall be a whole percentage of the Eligible Employee's Compensation, but not less than one percent (1%) nor more than fifteen percent (15%) (or such lower rate of Compensation specified as the limit in the terms and conditions of the applicable Offering).

(c) *Changing Deduction Rate*. Unless otherwise provided under the terms and conditions of an Offering, (i) a Participant may not increase the rate of payroll deductions during the Offering Period, and (ii) a Participant may discontinue or decrease the rate of payroll deductions during the Offering Period to a whole percentage of the Participant's Compensation (including a reduction to zero percent (0%)) in accordance with such procedures and subject to such limitations as the Company may establish for all Participants. A Participant may also increase or decrease the rate of payroll deductions effective for a new Offering Period by submitting an authorization to change the payroll deduction rate pursuant to the process prescribed by the Company from time to time. The new deduction rate shall be a whole percentage of the Eligible Employee's Compensation consistent with Subsection (b) above.

(d) *Discontinuing Payroll Deductions*. If a Participant wishes to discontinue employee contributions entirely, the Participant may do so by withdrawing from the Plan pursuant to Section 6(a). In addition, employee contributions may be discontinued automatically pursuant to Section 9(b).

SECTION 6. WITHDRAWAL FROM THE PLAN.

(a) *Withdrawal*. A Participant may elect to withdraw from the Plan by giving notice pursuant to the process prescribed and communicated by the Company from time to time. Such withdrawal may be elected at any time before the last day of an Offering Period, except as otherwise provided in the Offering. In addition, if payment by cash or check is permitted under the terms and conditions of an Offering, Participants may be deemed to withdraw from the Plan by declining or failing to remit timely payment to the Company for the Shares. As soon as reasonably practicable thereafter, payroll deductions shall cease and the entire amount credited to the Participant's Plan Account shall be refunded to him or her in cash, without interest, except as may be required by applicable law. No partial withdrawals shall be permitted.

(b) *Re-enrollment After Withdrawal*. A former Participant who has withdrawn from the Plan shall not be a Participant until the Participant re-enrolls in the Plan under Section 4(b). Re-enrollment may be effective only at the commencement of an Offering Period.

SECTION 7. CHANGE IN EMPLOYMENT STATUS.

(a) *Termination of Employment*. Termination of employment as an Eligible Employee for any reason, including death, shall be treated as an automatic withdrawal from the Plan under Section 6(a). A transfer from one Participating Company to another shall not be treated as a termination of employment.

(b) *Leave of Absence*. For purposes of the Plan, employment shall not be deemed to terminate when the Participant goes on a military leave, a sick leave or another bona fide leave of absence, if the leave was approved by the Company in writing. Employment, however, shall be deemed to terminate three (3) months after the Participant goes on a leave, unless a contract or statute guarantees the Participant's right to return to work. Employment shall be deemed to terminate in any event when the approved leave ends, unless the Participant immediately returns to work.

(c) *Death*. In the event of the Participant's death, the amount credited to the Participant's Plan Account shall be paid to the Participant's estate.

SECTION 8. PLAN ACCOUNTS AND PURCHASE OF SHARES.

(a) *Plan Accounts*. The Company shall maintain a Plan Account on its books in the name of each Participant. Whenever an amount is deducted from the Participant's Compensation under the Plan, such amount shall be credited to the Participant's Plan Account. Amounts credited to Plan Accounts shall not be trust funds and may be commingled with the Company's general assets and applied to general corporate purposes, except where applicable law requires that amounts credited to Plan Accounts be held separately or deposited with a third party. No interest shall be credited to Plan Accounts, except as may be required by applicable law.

(b) *Purchase Price*. The Purchase Price for each Share purchased during an Offering Period shall be the lesser of:

(i) eighty-five percent (85%) of the Fair Market Value of such share on the Purchase Date; or

(ii) eighty-five percent (85%) of the Fair Market Value of such share on the Offering Date.

The Committee may specify an alternate Purchase Price amount or formula in the terms and conditions of an Offering, but in no event may such amount or formula result in a Purchase Price less than that calculated pursuant to the immediately preceding formula.

(c) *Number of Shares Purchased*. As of each Purchase Date, each Participant shall be deemed to have elected to purchase the number of Shares calculated in accordance with this Subsection (c), unless the Participant has previously elected to withdraw from the Plan in accordance with Section 6(a). The amount then in the Participant's Plan Account shall be divided by the Purchase Price, and the number of shares that results shall be purchased from the Company with the funds in the Participant's Plan Account (rounded down to the nearest whole share, unless otherwise set forth in the terms and conditions of an Offering). Unless provided otherwise by the Committee prior to commencement of an Offering, the maximum number of Shares which may be purchased by an individual Participant during such Offering is 25,000 shares. The foregoing notwithstanding, no Participant shall purchase more than such number of Shares as may be determined by the Committee with respect to the Offering Period, or Purchase Period, if applicable, nor more than the amount of Shares set forth in Sections 9(b) and 14(a). For each Offering Period and, if applicable, Purchase Period, the Committee shall have the authority to establish additional limits on the number of Shares purchasable by all Participants in the aggregate.

(d) *Available Shares Insufficient*. In the event that the aggregate number of Shares that all Participants elect to purchase during an Offering Period exceeds the maximum number of Shares remaining available for issuance under Section 14(a), or which may be purchased pursuant to any additional aggregate limits imposed by the Committee, then the number of Shares to which each Participant is entitled shall be determined by multiplying the number of Shares available for issuance by a fraction, the numerator of which is the number of Shares that such Participant has elected to purchase and the denominator of which is the number of Shares that all Participants have elected to purchase.

(e) *Issuance of Shares*. Certificates representing the Shares purchased by a Participant under the Plan shall be issued the Participant as soon as reasonably practicable after the applicable Purchase Date, except that the Company may determine that such shares shall be held for each Participant's benefit by a broker designated by the Company. Shares may be registered in the name of the Participant or jointly in the name of the Participant and the Participant's spouse as joint tenants with right of survivorship or as community property.

(f) *Unused Cash Balances*. Unless otherwise set forth in the terms and conditions of an Offering, an amount remaining in the Participant's Plan Account that represents the Purchase Price for any fractional share shall be carried over in the Participant's Plan Account to the next Offering Period or refunded to the Participant in cash at the end of the Offering Period, without interest (except as may be required by applicable law), if the Participant's participation is not continued. Any amount remaining in the Participant's Plan Account that represents the Purchase Price for whole shares that could not be purchased by reason of Subsection (c) or (d) above, Section 9(b) or Section 14(a) shall be refunded to the Participant in cash, without interest (except as may be required by applicable law).

(g) *Shareholder Approval*. The Plan shall be submitted to the shareholders of the Company for their approval within twelve (12) months after the date the Plan is adopted by the Board. Any other provision of the Plan notwithstanding, no Shares shall be purchased under the Plan unless and until the Company's shareholders have approved the adoption of the Plan.

SECTION 9. LIMITATIONS ON STOCK OWNERSHIP.

(a) *Five Percent Limit*. Any other provision of the Plan notwithstanding, no Participant shall be granted a right to purchase Shares under the Plan if such Participant, immediately after the Participant's election to purchase such Shares, would own stock possessing five percent (5%) or more of the total combined voting power or value of all classes of stock of the Company or any parent or Subsidiary of the Company. For purposes of this Subsection (a), the following rules shall apply:

(i) Ownership of stock shall be determined after applying the attribution rules of Section 424(d) of the Code;

Each Participant shall be deemed to own any stock that the Participant has a right or option to purchase under this or any other plan; and

(ii) Each Participant shall be deemed to have the right to purchase up to the maximum number of Shares that may be purchased by a Participant under the Plan under the individual limit specified pursuant to Section 8(c) with respect to each Offering Period.

(b) *Dollar Limit*. Any other provision of the Plan notwithstanding, no Participant shall accrue the right to purchase Shares at a rate which exceeds twenty-five thousand dollars ($25,000) of Fair Market Value of such Shares per calendar year (under the Plan and all other employee stock purchase plans of the Company or any parent or Subsidiary of the Company), determined in accordance with the provisions of Section 423(b)(8) of the Code and applicable United States Treasury Regulations promulgated thereunder.

For purposes of this Subsection (b), the Fair Market Value of Shares shall be determined as of the beginning of the Offering Period in which such Shares are purchased. Employee stock purchase plans not described in Section 423 of the Code shall be disregarded. If a Participant is

precluded by this Subsection (b) from purchasing additional Shares under the Plan, then the Participant's employee contributions shall automatically be discontinued.

SECTION 10. RIGHTS NOT TRANSFERABLE.

The rights of any Participant under the Plan, or any Participant's interest in any Shares or moneys to which the Participant may be entitled under the Plan, shall not be transferable by voluntary or involuntary assignment or by operation of law, or in any other manner other than by the laws of descent and distribution. If a Participant in any manner attempts to transfer, assign or otherwise encumber the Participant's rights or interest under the Plan, other than by the laws of descent and distribution, then such act shall be treated as an election by the Participant to withdraw from the Plan under Section 6(a).

SECTION 11. NO RIGHTS AS AN EMPLOYEE.

Nothing in the Plan or in any right granted under the Plan shall confer upon the Participant any right to continue in the employ of a Participating Company for any period of specific duration or interfere with or otherwise restrict in any way the rights of the Participating Companies or of the Participant, which rights are hereby expressly reserved by each, to terminate the Participant's at-will employment at any time and for any reason, with or without cause.

SECTION 12. NO RIGHTS AS A SHAREHOLDER.

A Participant shall have no rights as a shareholder with respect to any Shares that the Participant may have a right to purchase under the Plan until such shares have been purchased on the applicable Purchase Date and such Participant's ownership of such Shares shall have been entered into the books of the registrar or the Participant is issued a stock certificate, as applicable.

SECTION 13. SECURITIES LAW REQUIREMENTS.

Shares shall not be issued under the Plan unless the issuance and delivery of such shares comply with (or are exempt from) all applicable requirements of law, including (without limitation) the United States Securities Act of 1933, as amended, the rules and regulations promulgated thereunder, state or non-U.S. securities laws and regulations, the regulations of any stock exchange or other securities market on which the Company's securities may then be traded, and any foreign securities, exchange control or other applicable laws of any country which has jurisdiction over the applicable Participant.

SECTION 14. SHARES OFFERED UNDER THE PLAN.

(a) *Authorized Shares*. The maximum aggregate number of Shares available for purchase under the Plan is 312,500 Shares, plus an annual increase to be added on the first day of each of the Company's fiscal years for a period of up to ten years, beginning with the fiscal year that begins January 1, 2025, equal to the least of (i) one percent (1%) of the outstanding Shares on such date, (ii) or a lesser amount determined by the Committee or Board. The aggregate

number of shares available for purchase under the Plan (and the limit in clause (ii) to the annual increase thereto) shall at all times be subject to adjustment pursuant to Section 14(b).

(b) *Antidilution Adjustments*. The aggregate number of Shares offered under the Plan, the individual and aggregate Participant share limitations described in Section 8(c) and the price of shares that any Participant has elected to purchase shall be adjusted proportionately by the Committee in the event of any change in the number of issued Shares (or issuance of shares other than Shares) by reason of any forward or reverse share split, subdivision or consolidation, or share dividend or bonus issue, recapitalization, reclassification, merger, amalgamation, consolidation, split-up, spin-off, reorganization, combination, exchange of Shares, the issuance of warrants or other rights to purchase Shares or other securities, or any other change in corporate structure or in the event of any extraordinary distribution (whether in the form of cash, Shares, other securities or other property), in any case, in a manner that complies with Section 423 of the Code.

(c) *Reorganizations*. Any other provision of the Plan notwithstanding, in the event of a Corporate Reorganization in which the Plan is not assumed by the surviving corporation or its parent corporation pursuant to the applicable plan of merger or consolidation, the Offering Period then in progress shall terminate immediately prior to the effective time of such Corporate Reorganization and either shares shall be purchased pursuant to Section 8 or, if so determined by the Board or Committee, all amounts in all Participant Accounts shall be refunded pursuant to Section 15 without any purchase of shares. The Plan shall in no event be construed to restrict in any way the Company's right to undertake a dissolution, liquidation, merger, consolidation or other reorganization.

SECTION 15. AMENDMENT OR DISCONTINUANCE.

The Board or Committee shall have the right to amend, suspend or terminate the Plan at any time and without notice; provided, however, that any amendment that would be treated as the adoption of a new plan for purposes of Section 423 of the Code will have no force or effect unless approved by the shareholders of the Company within twelve (12) months before or after its adoption. Upon any such amendment, suspension or termination of the Plan during an Offering Period, the Board or Committee may in its discretion determine that the applicable Offering shall immediately terminate and that all amounts in the Participant Accounts shall be carried forward into a payroll deduction account for each Participant under a successor plan, if any, or promptly refunded to each Participant. Except as provided in Section 14, any increase in the aggregate number of Shares to be issued under the Plan shall be subject to approval by a vote of the shareholders of the Company. In addition, any other amendment of the Plan shall be subject to approval by a vote of the shareholders of the Company to the extent required by an applicable law or regulation. The Plan shall continue until the earlier to occur of (a) termination of the Plan pursuant to this Section 15 or (b) issuance of all of the Shares reserved for issuance under the Plan.

SECTION 16. LIMITATION ON LIABILITY.

Notwithstanding anything to the contrary in the Plan, neither the Company, nor any of its Subsidiaries, nor the Committee, nor any person acting on behalf of the Company, any of its Subsidiaries, or the Committee, will be liable to any Participant, to any permitted transferee, to the estate or beneficiary of any Participant or any permitted transferee, or to any other person by reason of any acceleration of income, any additional tax, or any penalty, interest or other liability asserted by reason of the failure of the Plan or any option to purchase Shares to satisfy the requirements of Section 423, or otherwise asserted with respect to the Plan or any option to purchase Shares.

SECTION 17. UNFUNDED PLAN.

The Company's obligations under the Plan are unfunded, and no Participant will have any right to specific assets of the Company in respect of any option to purchase Shares. Participants will be general unsecured creditors of the Company with respect to any amounts due or payable under the Plan.

SECTION 18. OFFER TO PARTICIPANTS OUTSIDE THE UNITED STATES.

Notwithstanding any provision of the Plan to the contrary, to comply with applicable law in countries outside the United States in which the Company and its Subsidiaries and Affiliates operate or in which Participants work or reside, the Committee, in its sole discretion, shall have the power and authority to: (i) determine which Employees outside the United States will be Eligible Employees under the Plan; (ii) modify the terms and conditions of any Offering to Eligible Employees outside the United States; (iii) establish sub-plans and modify terms, procedures and rules, to the extent such actions may be necessary or advisable, including adoption of rules, procedures or sub-plans applicable to particular Subsidiaries and Affiliates or Participants in particular locations; provided that no such sub-plans and/or modifications shall take precedence over Section 3 of the Plan or otherwise require shareholder approval; (iv) take any action, before or after options to purchase Shares are granted, that it deems advisable to obtain approval or to facilitate compliance with any necessary local governmental regulatory exemptions or approvals and (v) impose conditions on participation in the Plan and/or the purchase of Shares in order to minimize the Company's obligation with respect to tax equalization for Participants on assignments outside their home country. Without limiting the generality of the foregoing, the Committee is specifically authorized to adopt rules, procedures and sub-plans with provisions that limit or modify rights on eligibility to participate in an Offering, on termination of employment, available methods of contribution, payment of income tax, social insurance contributions and payroll taxes, the shifting of employer tax or social insurance contribution liability to a Participant, the withholding procedures and handling of any Share certificates or other indicia of ownership. Notwithstanding the foregoing, the Board will only take action and grant options to purchase Shares that comply with applicable laws.

SECTION 19. GOVERNING LAW.

The Plan shall be governed by the laws of the State of Delaware, without application of the conflicts of law principles thereof.

SECTION 20. EXECUTION.

To record the adoption of the Plan by the Board, the Company has caused its authorized officer to execute the same.

Silvaco Group, Inc.

By: _____
Name:
Title:
Date:

Subsidiaries of Silvaco Group, Inc.

Subsidiary	Jurisdiction
Silvaco, Inc.	USA
Silvaco Brasil Servicos De Tecnologia LTDA	Brazil
Silvaco China Co, Ltd	China
Silvaco Data Systems Korea, Ltd	Korea
Silvaco Denmark ApS	Denmark
Silvaco Europe, Ltd	UK
Silvaco GmbH	Germany
Silvaco Hong Kong Co. Ltd	Hong Kong
Silvaco India PVT, Ltd	India
Silvaco Japan Co, Ltd	Japan
Silvaco SA	France
Silvaco Singapore PTE, Ltd	Singapore
Silvaco Taiwan Co, Ltd	Taiwan
Silvaco Ukraine	Ukraine

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the use in this Registration Statement on Form S-1 of Silvaco Group, Inc. of our report dated March 15, 2024 (except for the effects of the stock split described in Note 2, as to which the date is April 30, 2024), relating to the consolidated financial statements of Silvaco Group, Inc. (the “Company”) (which report expresses an unqualified opinion and includes an explanatory paragraph relating to the adoption of Accounting Standards Codification Topic No. 326). We also consent to the reference to us under the heading “Experts” in such Registration Statement.

/s/ Moss Adams LLP

Campbell, California
April 30, 2024