



Weebit Nano and Silvaco Develop New Simulation Capabilities to Increase ReRAM Adoption

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New model accelerates OEM product development schedules for Weebit's ReRAM modules in advanced semiconductor designs

February 19, 2020 – Weebit Nano Ltd (ASX: WBT), a developer of next generation memory technology for the global semiconductor industry, and Silvaco, Inc., a leading global provider of software, IP, and services for designing electronic systems, today announced that they have successfully modeled the electrical behavior of Weebit's silicon oxide (SiOx) Resistive Random Access Memory (ReRAM) device

This new simulation model capability in Silvaco's advanced Technology Computer-Aided Design (TCAD) solution, Victory Device™, accelerates the incorporation of Weebit's ReRAM modules into advanced semiconductor designs used in the discrete and embedded memory chip markets and speeds Original Equipment Manufacturer (OEM) product development schedules by reducing technology testing stages.

Victory Device analyzes the electrical, optical, chemical, and thermal behavior of semiconductor devices. Its physics-based simulations dramatically speed up the design, fabrication, and commercial use of semiconductor device technology through the elimination of expensive and time-consuming experimental wafers during technology adoption by OEMs.

As part of a partnership program conducted throughout 2019, Weebit and Silvaco developed a TCAD solution that accurately models the electrical behavior of Weebit's ReRAM devices. This collaboration focused on the essential material processes in the resistive switching of SiOx ReRAM devices to gain an in-depth understanding of their properties and was based on Weebit's physical samples and data.

Commenting on Silvaco's successful TCAD modelling of Weebit's ReRAM technology, VP & GM of Silvaco's TCAD Business Unit, Eric Guichard, said: "These results are excellent news for the semiconductor industry. Having this new ReRAM TCAD model in our advanced device simulator will enable the semiconductor industry to more efficiently embed ReRAM technology in their designs, leading to shorter production development schedules. Through our collaboration with Weebit, a key player in the ReRAM market, we're enabling our mutual customers to take advantage of the latest advancements in semiconductor technology."

Coby Hanoch, Weebit CEO, said: "Silvaco provides state-of-the-art device models and TCAD tools that are widely used by semiconductor companies. Our successful joint development provides customers with early access to Weebit's ReRAM technology on the most powerful simulation tools in the industry. The newly developed TCAD model will enable customers to fast-track the development and release of their next-generation products, while saving expensive and time-consuming runs in fabrication. Costly learning, development and testing cycles that take several months have now been eliminated. This is another key milestone step by Weebit to accelerate the adoption of its ReRAM technology by a larger number of global OEM customers."

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About Weebit Nano Limited

Weebit Nano is a leader in the development of next generation computer memory technology, and plans to become the new industry standard in this space. Its goal is to address the growing need for a significantly higher performance and lower power computer memory technology. Weebit Nano's ReRAM technology is based on fab-friendly Silicon Oxide, allowing the company to rapidly execute, without the need for special equipment or preparations. The company secured several patents to ensure optimal commercial and legal protection for its ground-breaking technology.

Weebit Nano's technology enables a quantum leap, allowing semiconductor memory elements to be significantly cheaper, faster, more reliable and more energy efficient than the existing Flash technology. Weebit Nano has signed an R&D agreement with Leti, an R&D institute that specialises in nanotechnologies, to further develop SiOx ReRAM technology.

For more information please visit: www.weebit-nano.com.

About Silvaco, Inc.

Silvaco Inc. is a leading EDA tools and semiconductor IP provider used for process and device development for advanced semiconductors, power IC, display, and memory design. For over 30 years, Silvaco has enabled its customers to develop next-generation semiconductor products in the shortest time with reduced cost. Silvaco is a technology company outpacing the EDA industry by delivering innovative smart silicon solutions to meet the world's ever-growing demand for mobile intelligent computing. The company is headquartered in Santa Clara, California and has a global presence with offices located in North America, Europe, Japan, and Asia.

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