

ASX RELEASE (ASX: WBT)

Weebit Nano demonstrates its first crossbar ReRAM arrays

*Latest milestone combines Weebit's ReRAM technology with a selector
Multiple potential uses, including discrete memory chips and neuromorphic computing*

24 January 2022

Weebit Nano Limited (ASX:WBT; Weebit or the Company), a leading developer of next-generation memory technologies for the global semiconductor industry, is pleased to announce that together with its development partner CEA-Leti, it has demonstrated its first operational crossbar arrays that combine its ReRAM technology with a selector. This is a key milestone on the Company's path to creating discrete (stand-alone) non-volatile memory (NVM) chips.

Discrete memory chips consist of large arrays of memory cells, from Megabit (Mb or one million bits) to multi-Gigabit (Gb, or one billion bits) in size. They therefore require very high densities to contain as much memory as possible on the same piece of silicon.

The 1T1R (one transistor one resistor) architecture used in embedded ReRAM arrays is not sufficient to support the large arrays of memory cells needed in discrete (stand-alone) memory chips since transistors are too big. For this reason, Weebit's crossbar arrays were developed using a 1S1R (one selector one resistor) architecture that enables the high density needed for discrete chips. Such an architecture also allows Weebit's arrays to be stacked in 3D layers so they can deliver even higher densities.

Weebit's 1S1R crossbar ReRAM architecture has potential applications in storage class memory, persistent memory and as a NOR flash replacement. It is also ideal for AI architecture such as in-memory computing and neuromorphic computing.

Commenting on the Company's latest technology development milestone, CEO Coby Hanoach said:

"Weebit Nano continues to make significant technical and commercial progress within the embedded sector – recently successfully scaling our ReRAM technology down to 28nm. Now, with the creation of our first kilobit crossbar arrays, which combine our ReRAM technology with CEA-Leti's selector technology, we're continuing our progress toward discrete memory solutions.

Developing such a crossbar array is a very innovative process that requires significant research. As part of this work, we recently filed several new patents together with CEA-Leti, designed to further protect Weebit's ReRAM intellectual property, with a focus on 1S1R architectures and selector cell programming."

This announcement has been authorised for release by the Board of Weebit Nano Limited.

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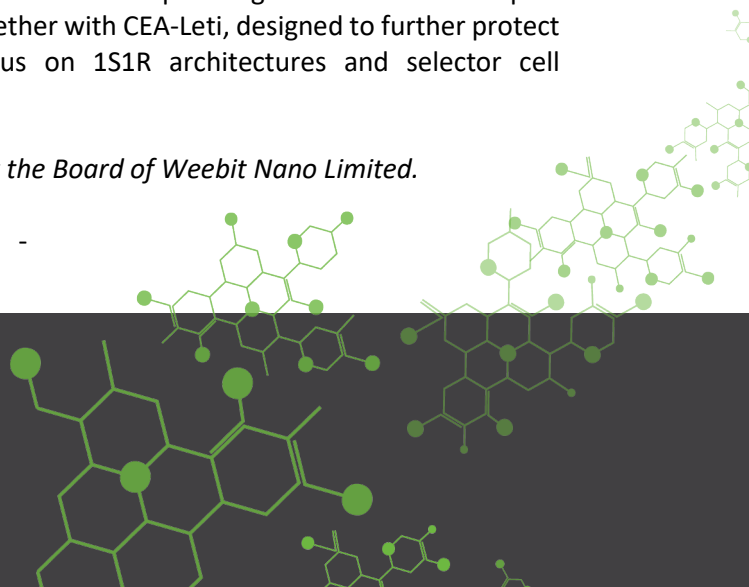


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About Weebit Nano Limited

Weebit Nano Ltd. is a leading developer of next-generation semiconductor memory technology. The company's ground-breaking Resistive RAM (ReRAM) addresses the growing need for significantly higher performance and lower power memory solutions in a range of new electronic products such as Internet of Things (IoT) devices, smartphones, robotics, autonomous vehicles, 5G communications and artificial intelligence.

Weebit's ReRAM allows semiconductor memory elements to be significantly faster, less expensive, more reliable and more energy efficient than those using existing Flash memory solutions. Because it is based on fab-friendly materials, the technology can be quickly and easily integrated with existing flows and processes, without the need for special equipment or large investments.

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