



## **Micron Technology, Inc., and AgigA Tech Collaborate to Develop Nonvolatile DIMM Technology**

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SALT LAKE CITY, Nov. 14, 2012 (GLOBE NEWSWIRE) -- SuperComputing 2012 — Micron Technology, Inc. (Nasdaq:MU), one of the world's leading providers of advanced semiconductor solutions, and AgigA Tech, Inc., a subsidiary of Cypress Semiconductor Corp. (Nasdaq:CY) and a leading provider of high-speed, high-density, battery-free nonvolatile memory solutions, announced today that the two companies have signed an agreement to collaborate to develop and offer nonvolatile DIMM (NVDIMM) products.

The partnership will leverage the strengths of the respective companies, with Micron's expertise in memory IC, module development, and manufacturing, and AgigA Tech's substantial IP and patent position in the area of hybrid nonvolatile RAM technology. As part of the agreement, Micron will offer to their customers an NVDIMM module that will pair with AgigA Tech's power modules, based on ultracapacitors (PowerGEM®), to create a complete NVDIMM solution. NVDIMM technology provides performance, cost and data security advantages for a wide range of applications, including server RAIDs, storage tiering, data logging, de-duplication, system checkpointing and metadata processing.

"The increasing need for persistent, cost-effective nonvolatile memory solutions is a key focus for us," said Robert Feurle, vice president DRAM Marketing at Micron. "Our partnership with AgigA Tech is a major step in enhancing a strong portfolio for our customers."

"From our start in 2007, we have always believed that NVDIMM technology could be a game-changer for enterprise-class server and storage solutions," said Ron Sartore, president and CEO of AgigA Tech. "Establishing a strategic partnership with Micron allows us to drive that vision toward mass market enablement."

### **NVDIMM Technology**

NVDIMMs enable fast, persistent main memory for high-performance computing applications. By combining industry-standard DRAM and NAND Flash technology, NVDIMMs provide the low latency and nearly infinite endurance of DRAM, along with the nonvolatility of Flash. During normal operation, the NVDIMM appears to the host system as a standard JEDEC DRAM memory module. In the event of an unexpected power loss, the critical data residing in the DRAM is saved to onboard NAND Flash using a battery-free power source based on ultracapacitors. When power is returned, the in-memory state of the DRAM at the time power was lost is restored from the Flash. The recovery time from a catastrophic power-loss event is almost immediate since the restore operation takes a matter of seconds and recharging the ultracapacitors takes only minutes. NVDIMMs are designed to integrate easily into the DIMM slots of industry-standard server and storage platforms, providing persistent memory for use cases such as write caching and metadata storage.

For more information on NVDIMM technology, contact [modulesupport@micron.com](mailto:modulesupport@micron.com).

### **Availability**

NVDIMM samples are expected in 1Q13.

### **SC12**

Micron and AgigA Tech will be showcasing NVDIMM technology at SC12 at the Salt Palace Convention Center in Salt Lake City, Utah, November 12—15. In Micron's Booth 4618, there will be a live demonstration of the latest NVDIMM products integrated on an Intel Sandy Bridge platform.

### **About Micron**

Micron Technology, Inc., is one of the world's leading providers of advanced semiconductor solutions. Through its worldwide operations, Micron manufactures and markets a full range of DRAM, NAND and NOR flash memory, as well as other innovative memory technologies, packaging solutions and semiconductor systems for use in leading-edge computing, consumer, networking, embedded and mobile products. Micron's common stock is traded on the NASDAQ under the MU symbol. To learn more about Micron Technology, Inc., visit [www.micron.com](http://www.micron.com).

The Micron Technology, Inc. logo is available at <http://www.globenewswire.com/newsroom/prs/?pkgid=6950>

### **About AgigA Tech, Inc.**

Headquartered in San Diego, California, AgigA Tech is a leading developer of high-speed, high-density, battery-free non-volatile memory solutions. The company's flagship AGIGARAM® product family represents a new class of non-volatile memory created to address the fundamental need for higher-density, higher-performance memory in enterprise-class applications. AGIGARAM integrates NAND Flash, DRAM and an ultracapacitor power source into an innovative, highly-reliable non-volatile memory subsystem that can deliver unlimited read/write performance at the fastest DRAM speeds, while also safely backing up all data when power is interrupted. AgigA Tech is a subsidiary of Cypress Semiconductor Corp. The company's products are available worldwide through the Cypress sales force and its distributor partners. More information on the company is available at [www.agigatech.com](http://www.agigatech.com).

### **About Cypress**

Cypress delivers high-performance, mixed-signal, programmable solutions that provide customers with rapid time-to-market and exceptional system value. Cypress offerings include the flagship PSoC 1, PSoC 3, and PSoC 5 programmable system-on-chip families and derivatives, CapSense touch sensing and TrueTouch solutions for touchscreens. Cypress is the world leader in USB controllers, including the high-performance West Bridge

solution that enhances connectivity and performance in multimedia handsets, PCs and tablets. Cypress is also the world leader in SRAM memories. Cypress serves numerous markets including consumer, mobile handsets, computation, data communications, automotive, industrial and military. Cypress trades on the NASDAQ Global Select Market under the ticker symbol CY. Visit Cypress online at [www.cypress.com](http://www.cypress.com).

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