

Northwest Logic Offers MRAM Controller IP compatible with Everspin's ST-MRAM

Northwest Logic's MRAM Controller Core is validated with Everspin's EMD3D064M, expanding the ST-MRAM ecosystem to enable low latency and high reliability storage systems

Chandler, AZ, Feb 9, 2015 - [Northwest Logic](#), a leading high-performance IP provider, and [Everspin Technologies, Inc.](#), the world's leading developer and manufacturer of discrete and embedded Magnetic RAM "MRAM", announces the full interoperability between Northwest Logic's MRAM Controller Core and Everspin Technologies' ST-MRAM devices. This interoperability is hardware proven on a Xilinx Virtex-7 FPGA platform and is now available for designs needing low-latency, high memory throughput using MRAM technology.

Everspin's ST-MRAM technology provides high performance, non-volatile RAM which is designed for storage and network markets. Everspin's ST-MRAM combines the speed and endurance of DRAM with the non-volatility of Flash and is also interface compatible with DDR3 SDRAM. Everspin offers the world's first commercially-available Spin Torque MRAM and a roadmap of ST-MRAM solutions that meets tomorrow's storage system requirements. ST-MRAM from Everspin gives designers of high performance storage systems the ability to achieve ultra low latency, increase reliability with high cycling endurance, and protect data in the event of power loss.

"The combination of Everspin's EMD3D064M DDR3 ST-MRAM and Northwest Logic's [MRAM Controller Core](#) provides storage and memory system designers a new level of capability to have critical cache and in-flight data inherently protected," said Scott Emley, Vice President of Marketing at Everspin. "We are very pleased that Northwest Logic, as a key Memory Controller IP provider, is now supporting ST-MRAM. This is a key enabler for our customers to use ST-MRAM in their designs."

Northwest Logic, a key IP provider in the semiconductor market, provides a complete array of high performance [Memory Interface Solutions](#) for ASIC and FPGA applications. "We are glad to be working with Everspin to demonstrate a complete end-to-end MRAM system," said Brian Daellenbach, President of Northwest Logic. "Our MRAM Controller Core supports Everspin's ST-MRAM devices and is fully available for applications requiring high memory throughput, high clock rates and full programmability. The core also supports interfacing to DDR3 SDRAM."

About Northwest Logic

Northwest Logic, founded in 1995 and located in Beaverton, Oregon, provides high-performance, silicon-proven, easy-to-use IP cores including [PCI Express solution](#) (PCI Express 3.0, 2.1 and 1.1 cores, DMA cores and DMA drivers), [Memory Interface Solution](#) (DDR4/3/2, LPDDR4/3/2 SDRAM; HBM,

MRAM, RLD RAM 3/II), and [MIPI Solution](#) (CSI-2, DSI). These solutions support a full range of platforms including ASICs, Structured ASICs and FPGAs. For additional information, visit www.nwlogic.com.

About Everspin Technologies

Everspin Technologies is the worldwide leader in designing, manufacturing, and commercially shipping discrete and embedded Magnetoresistive RAM (MRAM) and Spin-Torque MRAM (ST-MRAM) into markets and applications where data persistence and integrity, low latency, and security are paramount. With over 40 Million MRAM and ST-MRAM products deployed in data center, cloud storage, energy, industrial, automotive, and transportation markets, Everspin has built the strongest and fastest growing foundation of MRAM users in the world. With an intellectual property portfolio of more than 500 active patents and applications, Everspin leads the market in development of both in-plane and perpendicular magnetic tunnel junction (MTJ) ST-MRAM bit cells. Everspin has established high-quality manufacturing worldwide, along with enabling a full turn-key 300mm high-volume foundry partner for advanced technology nodes including 40nm, 28nm and beyond. In addition to launching discrete memory solutions with new densities and advanced interfaces, including the world's first commercialization and volume shipments of ST-MRAM, Everspin is delivering on the company's strategy to proliferate MRAM and ST-MRAM as mainstream embedded memories for use in MCUs, GPUs, DSPs, Application Processors, and ASICs, earning Everspin its description as "The MRAM Company". www.everspin.com

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