Everspin announces production of the first MRAM with a Quad SPI interface

The MR10Q010 1Mb Quad SPI MRAM runs at 104MHz, offering the fastest non-volatile write speeds in the industry and is now available in both SOIC and BGA packages.

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Everspin has announced production availability of the world's fastest non-volatile memory with a Quad SPI interface, the MR10Q010, 1Mb QSPI MRAM. This high performance device can read and write data at 104MHz without the write delays encountered in other non-volatile technology such as NOR Flash. Combined with limitless write cycle endurance, the MR10Q010 is ideal for applications that require continuous recording of critical system data with the added benefit of protection of the data in the event of unexpected power loss, without the need for batteries or capacitors. Applications such as enterprise RAID controllers can take advantage of these features to enhance the reliability of mission critical data storage systems by using the MR10Q010 as a journal memory that records continuously updated system metadata.

Everspin has also sampled the MR10Q010 in a 24 ball BGA package that allows simple replacement of other Quad SPI products. This package will be available in volume in July 2016. This gives designers the choice of two mainstream packages for the MR10Q010, the 16 pin SOIC and 24 ball BGA.

"Customers now have more choices when it comes to selecting the best solution for applications requiring extremely fast write speeds and very high endurance," said Scott Sewell, Vice President of Sales and Marketing for Everspin, "The Quad SPI interface simplifies system design while offering higher bandwidth, and the choice of packages between SOIC and BGA gives designers more flexibility for board design."

For systems requiring lower instruction overhead and faster processor execution time, the MR10Q010 supports Execute in Place (XIP) and Quad Peripheral Instructions (QPI) that reduce the number of clock cycles required to perform certain read and write operations, freeing up the processor for other operations. The MR10Q010 offers byte addressability, which allows very fast code or data changes as compared to NOR Flash, which requires full-page program and erase cycles.

Customers can also order evaluation boards for testing the MR10Q010 in full Quad SPI mode. The MR10Q010-EVAL1 shield works with the STM32 Nucleo processor system and comes with a complete users guide for the hardware and software setup to evaluate the MRAM.

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 60 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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