## Everspin Offers MRAM Shield for Embedded System Developers using Arduino-derived Platforms

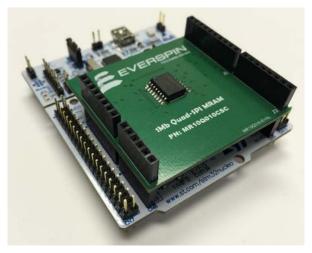
Everspin to display the 1Mb Quad SPI MR10Q010-EVAL at Embedded World 2015 with the NUCLEO-F411RE from STMicroelectronics

Chandler, AZ, February 24, 2015 — Everspin Technologies, Inc., the world's leading developer and manufacturer of discrete and embedded MRAM, today announced a new MRAM-based shield evaluation board that is designed for compatibility with any Arduino-derived host platform featuring a UNO expansion interface. The MR10Q010-EVAL from Everspin allows developers with an Arduino-derived host board to quickly and easily evaluate the benefits of SPI- and QSPI-based Magnetoresistive RAM (MRAM) products from Everspin. Everspin plans to display their new MR10Q010-EVAL shield evaluation board, populated with Everspin's MR10Q010 1Mb Quad-SPI MRAM, with the STMicroelectronics ARM®-Cortex®-based NUCLEO-F411RE at the Embedded World 2015 show in Nurnberg, Germany from February 24-26 in Hall 5, Booth 428.

"The MR10Q010-EVAL is the first MRAM-based shield for the vast Arduino-derived development community," said Scott Emley, Vice President of Marketing at Everspin. "Developers looking for fast, non-volatile memory with virtually unlimited endurance and high data retention – designed for robust storage, industrial, and transportation markets – now have a simple method to evaluate MRAM for their next project."

The MR10Q010-EVAL shield can stack onto any

Arduino-derived host board built to accept shields with a standard UNO expansion interface. Qualified designers can request a sample of the MR10Q010-EVAL, as well as download gerbers, schematics, quick start



Everspin's MR10Q010-EVAL MRAM shield with STMicroelectronic's NUCLEO-F411RE Arduino-derived evaluation board.

software, and documentation directly from Everspin's website by visiting <a href="https://www.everspin.com/MR10Q010-EVAL">www.everspin.com/MR10Q010-EVAL</a>. To complement the MR10Q010-EVAL, Everspin has created a simple MRAM\_MR10Q010 demonstration project on <a href="https://www.everspin.com/MR10Q010">ARM mbed™</a> using the NUCLEO-F411RE.

Populated on the MR10Q010-EVAL is Everspin's 1-Megabit serial MR10Q010 MRAM, which features four serial I/O paths known as a Quad SPI (or QSPI) interface. The combination of Quad SPI with MRAM allows users to take advantage of very high write speeds with no write delay as experienced with Flash or EEPROM based products. Featuring a clock speed of 104 MHz with 52

MBps read/write bandwidth, the MR10Q010 is used in applications that require high frequency, high-performance writes of critical data.

## **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". <a href="https://www.everspin.com">www.everspin.com</a>

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## **Everspin Contact:**

Michael Schoolnik Story Public Relations 415-674-3816 Michael@storypr.com