



Everspin Technologies and GLOBALFOUNDRIES Extend MRAM Joint Development Agreement to 12nm

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Magnetoresistive Random Access Memory (MRAM) continues to scale for both eMRAM and discrete MRAM solutions

CHANDLER, Ariz.--(BUSINESS WIRE)-- [Everspin Technologies, Inc.](http://www.everspin.com) (NASDAQ: MRAM), the world's leading developer and manufacturer of Magnetoresistive RAM (MRAM), today announced an amendment of its Spin-transfer Torque (STT-MRAM) joint development agreement (JDA) with GLOBALFOUNDRIES® (GF®), the world's leading specialty foundry. Everspin and GF have been partners on 40nm, 28nm, and 22nm STT-MRAM development and manufacturing processes and have now updated their agreement to set the terms for a future project on an advanced 12nm FinFET MRAM solution. Everspin is in production of discrete STT-MRAM solutions on 40 and 28nm, including its award winning 1Gb DDR4 device. GF recently announced it has achieved initial production of embedded MRAM (eMRAM) on its 22FDX® platform.

Everspin has over 650 patents and applications related to MRAM in its intellectual property portfolio and is the only memory manufacturer in production of discrete MRAM. While forecasts for discrete MRAM vary, Dr. Thomas Coughlin, digital storage analyst, makes reference in a Forbes article that his [2019 Emerging Memories are Ramping Up](#) report forecasts discrete MRAM sales to reach \$4B in sales by 2029. Everspin has already shipped over 125M units of discrete MRAM products to date and has over 1000 customers. GF is leading in eMRAM development and aims to displace embedded flash memory, particularly in microcontroller applications and wireless connected IoT. eMRAM provides superior performance to eFlash, particularly write speeds and lower power, and supports long term data retention at the higher temperatures that embedded applications require. eMRAM is also well suited to replace eSRAM due to its data persistence, lower power and size with similar performance and endurance capabilities.

"Our partnership with Everspin has allowed us to collectively lead the industry in STT-MRAM development and manufacturing," said Gregg Bartlett, senior vice president of Technology, Engineering and Quality at GLOBALFOUNDRIES. "We are very excited to extend our joint development agreement to bring MRAM differentiation to our 12nm FinFET platform."

Everspin's STT-MRAM and Toggle MRAM devices allow enterprise infrastructure, data center, industrial, IoT and a host of other application providers to increase the reliability and performance of systems where high-performance data persistence is critical. This is achieved by delivering protection against power loss without the use of supercapacitors or batteries, and in many applications providing the performance and endurance required for code and data storage in a single persistent device.

"Due to our industry leading partnership with GLOBALFOUNDRIES, we were first with the commercialization of Spin-transfer Torque MRAM," said Kevin Conley, President and CEO, Everspin. "Further scaling to GF's 12nm FinFET platform will continue to solidify not only our mutual technology leadership but will provide the next step for STT-MRAM as the future of memory technology."

About Everspin Technologies

Everspin Technologies, Inc. is the world's leading provider of Magnetoresistive RAM (MRAM), delivering unprecedented performance, non-volatility, endurance and reliability for applications where data persistence is paramount. Headquartered in Chandler, Arizona, Everspin is transforming the memory market with the largest and most diverse foundation of MRAM customers. For more information, visit www.everspin.com. NASDAQ: MRAM.

Cautionary Statement Regarding Forward-Looking Statements

This press release contains forward-looking statements regarding future events that involve risks and uncertainties that could cause actual results or events to differ materially from the expectations disclosed in the forward-looking statement, including, but not limited to; the anticipated market adoption of Everspin's products and technology at the rate Everspin expects; the ability for Everspin to expand the markets Everspin addresses at the rate it expects; the risk that unexpected technical difficulties may develop in the final stages of development or production of its products, or when Everspin's customers may ship in volume. Readers are advised that they should not place undue reliance on these forward-looking statements and should review the risk factors included in Everspin's Form 10-Q filed with the Securities and Exchange Commission on Nov 7, 2019, under the caption "Risk Factors." Subsequent events may cause these expectations to change, and Everspin disclaims any obligations to update or alter these forward-looking statements in the future, whether as a result of new information, future events or otherwise.

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