



GLOBALFOUNDRIES Delivers Industry's First Production-ready eMRAM on 22FDX Platform for IoT and Automotive Applications

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Company's advanced embedded non-volatile memory on its FDX™ platform provides a cost-effective solution for low-power, non-volatile code and data storage applications

Santa Clara, Calif., February 27, 2020 – GLOBALFOUNDRIES® (GF®) today announced its embedded magnetoresistive non-volatile memory (eMRAM) on the company's 22nm FD-SOI (22FDX®) platform has entered production, and GF is working with several clients with multiple production tape-outs scheduled in 2020. Today's announcement represents a significant industry milestone, demonstrating the scalability of eMRAM as a cost-effective option at advanced process nodes for Internet of Things (IoT), general-purpose microcontrollers, automotive, edge-AI (Artificial Intelligence), and other low-power applications.

Designed as a replacement for high-volume embedded NOR flash (eFlash), GF's eMRAM allows designers to extend their existing IoT and microcontroller unit architectures to access the power and density benefits of technology nodes below 28nm.

GF's eMRAM is a highly versatile and robust embedded non-volatile memory (eNVM) that has passed five rigorous real-world solder reflow tests, and has demonstrated 100,000-cycle endurance and 10-year data retention across the -40°C to 125°C temperature range. The FDX eMRAM solution supports AEC-Q100 quality grade 2 designs, with development in process to support an AEC-Q100 quality grade 1 solution next year.

"We continue our commitment to differentiate our FDX platform with robust, feature rich solutions that allow our clients to build innovative products for high performance and low power applications," said Mike Hogan, senior vice president and general manager of Automotive and Industrial Multi-market at GLOBALFOUNDRIES. "Our differentiated eMRAM, deployed on the industry's most advanced FDX platform, delivers a unique combination of high performance RF, low power logic and integrated power management in an easy-to-integrate eMRAM solution that enables our clients to deliver a new generation of ultra-low power MCUs and connected IoT applications."

Custom design kits featuring drop-in, silicon validated MRAM macros ranging from 4 to 48 mega-bits, along with the option of MRAM built-in-self-test support is available today from GF and our design partners.

eMRAM is a scalable feature that is expected to be available on both FinFET and future FDX platforms as a part of the company's advanced eNVM roadmap. GF's state-of-the-art 300mm production line at Fab 1 in Dresden, Germany, will support volume production of 22FDX with MRAM.

For more information on GF's 22FDX and MRAM features, contact your GF sales representative or go to globalfoundries.com.

About GLOBALFOUNDRIES

GLOBALFOUNDRIES (GF) is the world's leading specialty foundry. GF delivers differentiated feature-rich solutions that enable its clients to develop innovative products for high-growth market segments. GF provides a broad range of platforms and features with a unique mix of design, development and fabrication services. With an at-scale manufacturing footprint spanning the U.S., Europe and Asia, GF has the flexibility and agility to meet the dynamic needs of clients across the globe. GF is owned by Mubadala Investment Company. For more information, visit www.globalfoundries.com.

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