



VORAGO Technologies Announces Space-saving ARM® Cortex®-M0 (MCU) NVM for Extreme Radiation Environments

Radiation hardened & space-saving semiconductor technology speeds design process, improves reliability & reduces footprint

Austin, Texas — August 16th, 2019 — VORAGO Technologies announced the availability of the new VA10820-NVM Radiation Hardened ARM® Cortex®-M0 Microcontroller (MCU), incorporating the company's patented HARDSIL® technology. VA10820-NVM offers a solution for businesses developing components with physical space constraints while still requiring robust radiation performance for devices such as CubeSat, SmallSat, propulsion systems, motor controllers or system power supplies.

VA10820-NVM is the next-generation MCU in the VORAGO VA108x0 series, offering a Radiation Hardened ARM® Cortex®-M0 Microcontroller (MCU) that incorporates non-volatile memory storage (NVM). The solution enables designers to use contemporary technology in developing board level systems for radiation applications while maintaining lower costs, faster development times and higher reliability as compared to legacy solutions. The VA10820-series of products have proven capability in harsh environments with a significant flight heritage.

VA10820 includes the following features and benefits:

- Space-savings delivered by incorporating 256Mb FRAM within the MCU, saving 80mm² in board space.
- Developed using industry standard ARM Cortex - M0 MCU architecture.
- Data and program memory with 32bit ARM M0, 128kb Firmware memory, 50MHz speed.
- Utilizes HARDSIL® radiation hardening technology, developed by VORAGO delivering superior radiation hardened performance as compared to other Rad-Hard MCU options. Functional to 100 kRad (Si).
- Easy-to-design development kit, exceptional support and service offerings are available from VORAGO.

HARDSIL®, a patented VORAGO technology, produces robust resistance to radiation and extreme temperature environments for CMOS semiconductor processes at lower cost. As the first in the industry to develop ARM® Cortex®-M0 specifically for radiation and extreme temperatures VORAGO continues to innovate solutions that better meet the needs of customers who build for harsh environments. More than 130 customers worldwide have used VORAGO MCU devices to test, develop and manufacture applications for avionics, space and other extreme environments. VORAGO provides industry-leading technical support and design service options to ensure the most reliable and cost-effective solutions for customers.

Those interested in testing VA10820-NVM can begin by purchasing a REB1-VA10820 development kit to define the Firmware to program VA108x0 to suit their needs.

About VORAGO Technologies

VORAGO Technologies is a privately held, fabless semiconductor company based in Austin, TX with patented and proven solutions that address both radiation and heat-related failures inherent in traditional technology. VORAGO has developed the patented HARDSIL® technology that can withstand the most extreme conditions, including temperatures beyond 200°C and high-radiation while providing exceptional longevity. HARDSIL is easily integrated into standard silicon manufacturing process. VORAGO Technologies opens up possibilities for component design, no matter how hostile the environment. <https://voragotech.com>

VORAGO contact: Nerissa Sardi nsardi@voragotech.com +1-512-982-6635