



Nine Radiation-Hardened ICs Using VORAGO Technologies HARDSIL® Technology Launched for International Space Station

Austin, TX — February 19th, 2016 — VORAGO Technologies, a leading provider of radiation-hardened and extreme temperature embedded systems technology, today announced that nine CMOS silicon die, based upon patented and proven HARDSIL® technology, were launched on the SpaceX Falcon 9 CRS-10 cargo resupply mission to the International Space Station.

Microcontroller and SRAM memory devices based upon VORAGO's HARDSIL technology will be used in an important science study, sponsored by Air Force Research Laboratory and hosted on the STP-H5 experiment payload by the Air Force Space and Missile System Center Space Test Payload group and NASA. The electronics module was developed by the Air Force Research Laboratory (AFRL) and built by the COSMIAC Research Center at the University of New Mexico.

The purpose of the mission is to study the frequency and effect of high energy particle strikes on CMOS memory devices in space. An array of HARDSIL based memory chips is monitored and controlled by a VORAGO Technologies ARM® Corex®-M0 based microcontroller.

"We are delighted to be participating in this mission on the International Space Station," said Bernd Lienhard, chief executive officer of VORAGO Technologies. "The products are a great fit for the project, because HARDSIL immunizes chips against radiation induced latch-up. Our microcontrollers are growing in popularity in small satellite designs as we have proven technology to perform in extreme radiation environments".

HARDSIL is a process enhancement to standard Bulk CMOS manufacturing that hardens devices against the effects of radiation and temperature. HARDSIL can be used to harden any CMOS device using standard manufacturing equipment with no negative impact on performance or yields. This approach is a cost-effective alternative to current high-reliability techniques that use specialized manufacturing techniques, up-screened commercial products, redundant systems, or exotic packaging.

About VORAGO Technologies

VORAGO Technologies is a privately held, fabless semiconductor company based in Austin, TX with patented and proven solutions for extreme temperature and radiation environments. VORAGO's patented HARDSIL® technology can be integrated into standard silicon manufacturing processes and uses standard CMOS fabrication equipment. VORAGO Technologies opens up a new world of possibilities for your designs, no matter how hostile the environment. www.voragotech.com

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