

### BAE Shortform:

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### 2013-2014 SHORT-FORM PRODUCT GUIDE

RADIATION-HARDENED ELECTRONICS



## Protec GmbH and BAE Systems cooperation in Europe

BAE Systems develops and produces a wide array of radiation hardened space products, standard components and single-board computers. BAE Systems specializes in a broad domain of radiation-hardened electronics, micro-processors, memories and FPGAs.



The BAE Systems Semiconductor Technology Center (STC) in Manassas, Virginia, has been providing product solutions to the commercial, military and space communities since the early 1980s. A leading manufacturer of radiation-hardened, space-qualified semiconductor devices, the STC offers a complete design, fabrication, packaging, and test facility for very-large-scale integration, wafer and module development and production. The BAE Systems Space Products & Processing sector in Manassas, Virginia, has been providing product solutions to the commercial, military and space communities since the early 1980s. A leading manufacturer of radiation-hardened, space-qualified semiconductor devices, the SP&P offers a complete design, packaging, and test facility for very-large-scale integration, wafer and module development and production.

### SpaceWire

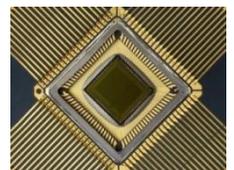
Our SpaceWire family consists of a TRL-9 4-port router ASIC, a SpaceWire Endpoint ASIC, and a next generation 4-port router System on Chip (SoC) with RMAP. These chips can be used as companions to the RAD750 microprocessor or as a standalone instrument controller. BAE Systems also offers SpaceWire evaluation boards in multiple configurations.

### PROM

Radiation-hardened PROM (based on oxide-nitride-oxide anti-fuse technology) is available in a 256Kb (32Kx8) configuration, with either 3.3V or 5V operation. Replacement for Aeroflex / Cobham PROM.

### C-RAM

QML qualified non-volatile C-RAM based on chalcogenide phase change material provides a dense and high-performance replacement for electrically erasable programmable read-only memory. Available in monolithic 4Mb (512Kx8) or 2Mb (256Kx8 with ECC) with single bit error correction and 20Mb (512Kx40) stacked configurations.



### SRAM

SRAMs in various configurations, including 4Mb (512Kx8), 16Mb (2Mx8 or 512Kx32) and 64Mb (8Mx8 or 2Mx32) monolithic designs as well as several higher density stacked devices ranging from 20Mb to 320Mb. Also available is a high performance, multi-mode 128Kx72 synchronous SRAM providing unique performance enhancements for certain processing Space Products.



### SDRAM

BAE also offers a synchronous dynamic random access memory (SDRAM) 2G (128M x 16)

### FPGA

BAE Systems has fabricated and packaged the radiation-hardened RH1020 and RH1280 field-programmable gate arrays (FPGAs). These Actel / Microsemi parts were discontinued in 2006, BAE Systems now manufactures the RH1020B and RH1280B as drop-in replacements for the original FPGAs.

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