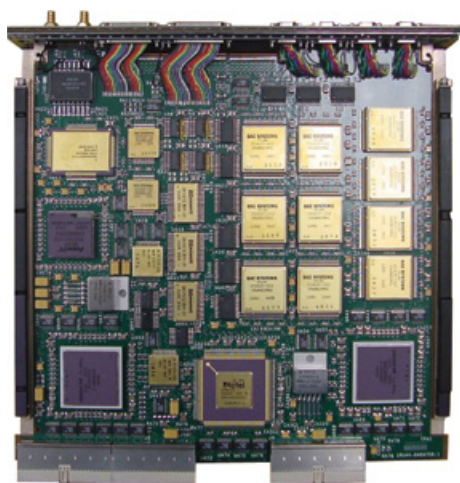


RAD750[®] 6U CompactPCI

extended single-board computer



The 6U CompactPCI extended single-board computer employs the PowerPC RAD750[®] microprocessor, the radiation-hardened version of the IBM PowerPC750 microprocessor. The companion PowerPC bridge ASIC provides access to the memory and the PCI version 2.2 backplane bus. Additional on-board interfaces include SpaceWire and 1553.

Key features

- Example startup ROM and VxWorks boardsupport package provided for all hardware configurations
- Green Hills Software's INTEGRITY real-time operating system as an alternate boardsupport package
- Hardware reference manuals and software users guide provided
- Software developed for the RAD6000[®] processor is easily ported to RAD750[®] computers
- All compilers currently available for the commercial PowerPC 750 are fully compatible with the RAD750[®] processor
- Operating systems for PowerPC 750-based computers are easily ported to RAD750[®] computers
- Virtutech offers a RAD750[®] simulator

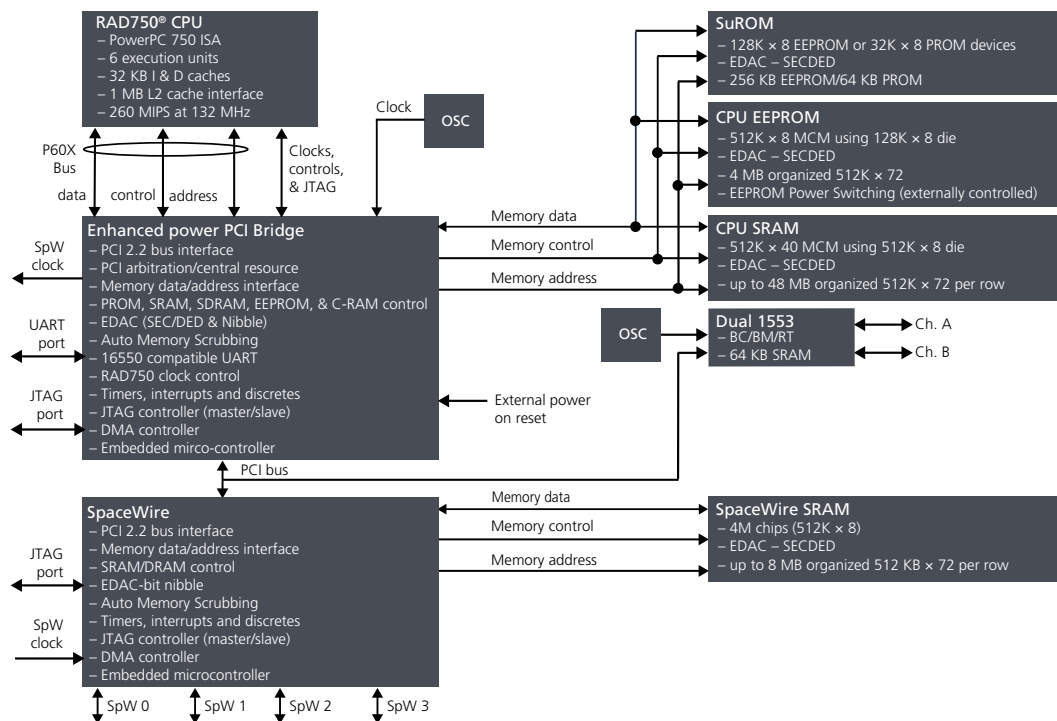
Supports variable memory configurations:

- SRAM:
 - 16-MB standard standard with options to 44 MB and ECC device-sparing
- SUROM:
 - 64 kB and ECC
 - EEPROM for engineering units (256 kB)
 - PROM for flight units (64 kB)
- EEPROM:
 - 4 MB and ECC

Specifications

Form factor	CompactPCI 6U (233 mm x 220 mm) Weight: <2.0 kilograms
Memory	SRAM: configurable 8 MB to 36 MB and EDAC and device-sparing SpW SRAM: configurable 4 MB to 8 MB SuROM: 256 or 64 kB and EDAC 256 kB EEPROM for engineering use 64 kB RH-PROM for flight use EEPROM: 4 MB and EDAC
Interfaces	Dual 1553 interfaces Four-port SpaceWire interface for high-speed data rate of up to 132Mb/second
Radiation-hardness	Total dose: >100 Krad (SI) Latchup-immune
Performance	SPECmark (est.): 5.8 SPECint95 at 132 MHz 3.5 SPECfp95 at 132 MHz Dhrystone 2.1: 260 MIPS at 132 MHz
Power supply	5V ± 10 percent and 3.3 volts ± 5 percent (2.5 volts generated by on-board regulator)
Power dissipation	<25 watts
Rail temperature range	-20 degrees celsius to +50 degrees celsius

RAD750® 6U extended flexible architecture



RAD750® family of products

RAD750® radiation-hardened PowerPC microprocessor
 RAD750® 6U CompactPCI single-board computer
 RAD750® 6U CompactPCI extended single-board computer

RAD750® 3U CompactPCI single-board computer
 RAD750® space computers Virtutech Simics virtual platform
 RAD750® custom single-board computers

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