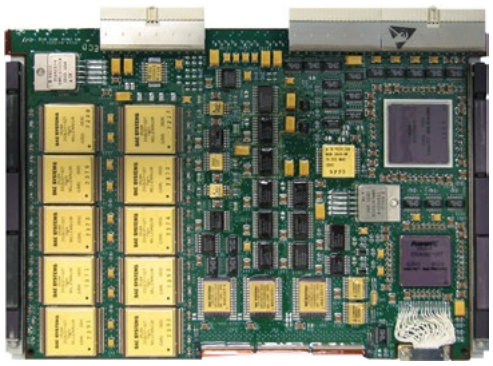
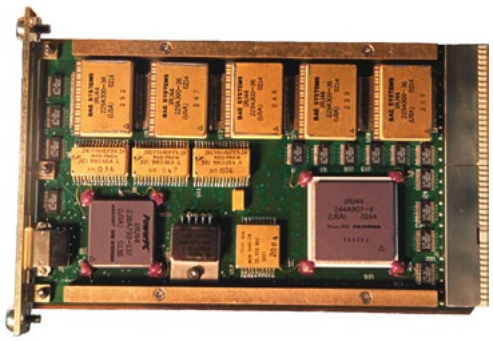
BAE SYSTEMS
INSPIRED WORK

RAD750® family of radiation-hardened products





Images not shown to scale.

The **RAD750® family of radiation-hardened products** includes the most technologically advanced microprocessor and space computers offered to the space community.

Description

The RAD750® microprocessor is available as a single-board computer in CompactPCI® 3U, 6U, or custom form factors.

Generations beyond competing products in development, the RAD750® radiation-hardened PowerPC microprocessor represents the rad-hard equivalent of the most advanced commercial microprocessor. As BAE Systems' third-generation microprocessor, it is the natural successor to our highly successful and space-proven RAD6000® processor. BAE Systems continues to enhance the RAD750® product family. A 1Mrad RAD750® capable of running at 200+MHz is now in testing.

A companion next-generation, applicationspecific, integrated circuit also is nearing completion and will add integrated support for SpaceWire, 1553, and dual-PCI buses (one 32-bit and one 64-bit). C-RAM, a non-volatile memory device developed by BAE Systems, is a planned replacement for local non-volatile memory and start-up read-only memory on future flight products. This eliminates the need for electrically erasable, programmable, readonly memory on the processor cards.

Wind River Simics, a full-system simulator, provides a virtual version of the RAD750®, designed specifically to support software development efforts. This simulator includes the RAD750® microprocessor as well as the devices found on the RAD750® 3U, 6U, and 6U extended boards. The simulator reduces risks and allows software development long before physical hardware is available, helping meet project deadlines and budgets.

Space systems and electronics

BAE Systems develops and produces a wide array of space products, from single-board radiation-hardened computers to complete space payloads. The company specializes in radiation-hardened electronics and space applications, including application-specific integrated circuits, memories, and singleboard computers. The company has nearly 500 computers in space, including the RAD6000® (32-bit), GVSC1750 (16-bit), and today's RAD750® family of space computers.

Photo courtesy NASA/JPL-Caltech

The Mars Reconnaissance Orbiter is one of the many missions using the RAD750®

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 Wind River Simics virtual platform
RAD750® custom single-board computers

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