

PrPMC2800

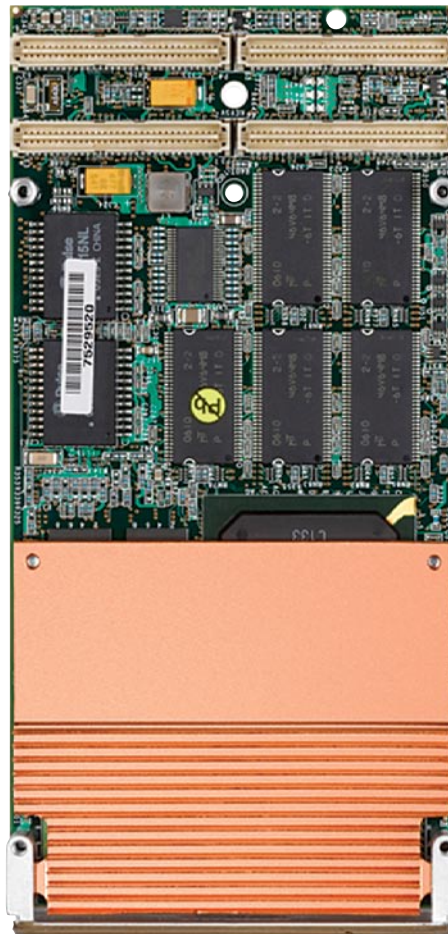
AltiVec Enabled Processor PMC Module

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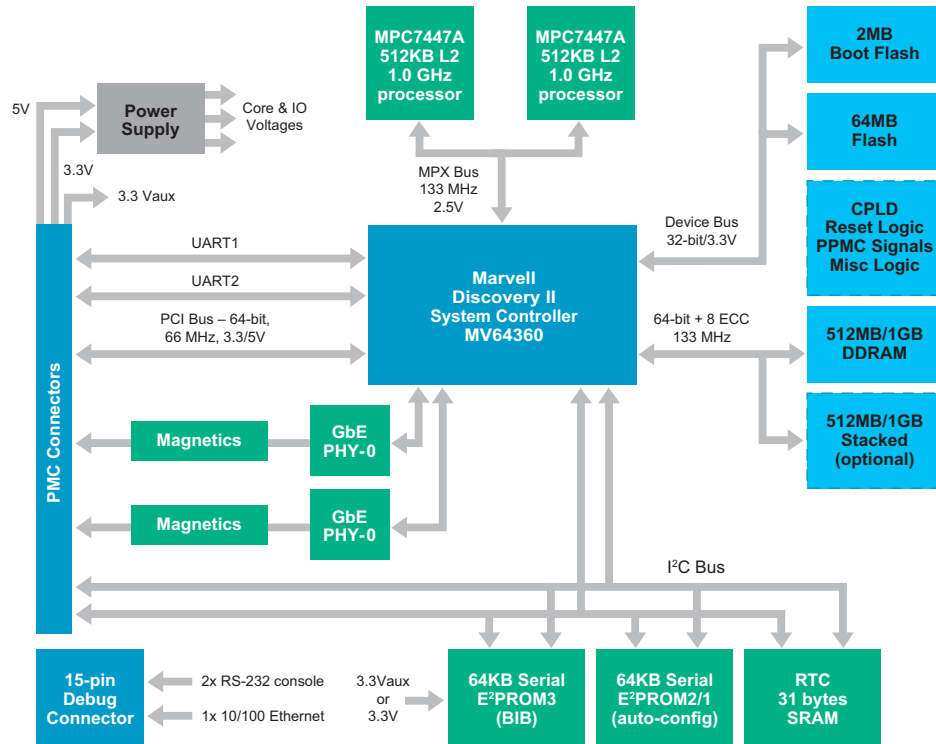
The Motorola PrPMC2800 is a high-performance, scalable PowerPC processor PCI mezzanine card (PrPMC) for industrial control, communications, medical, defense and aerospace, and other demanding real-time applications.

- High-performance symmetric multiprocessing (SMP) platform
- MPC7447A PowerPC G4 processor running at up to 1.0 GHz in single or dual processor configurations
- 128-bit wide AltiVec technology support
- Highly integrated Marvell Discovery II system controller
- Up to 2GB DDR SDRAM memory
- 64-bit/66 MHz PCI bus interface
- Up to 128MB on-board flash memory
- Configurable monarch/non-monarch mode
- Dual/independent Gigabit Ethernet interfaces
- Dual serial interfaces

The Motorola PrPMC2800 is a high-performance, scalable PowerPC® processor PCI mezzanine card (PrPMC) for industrial control, communications, medical, defense and aerospace, and other demanding real-time applications. By adhering to industry standards like PrPMC and PowerPC G4, the PrPMC2800 module offers the advantage of solutions with flexibility, reliability, and longevity.



PrPMC2800 Block Diagram



Specifications

PROCESSOR

- MPC7447A PowerPC up to 1.0 GHz (in single- or dual-processor configuration)
- 32-bit superscalar core capable of four instructions/ clock (three issues plus branch)
- 128-bit wide AltiVec vector unit L2 cache
- 512KB on-die cache

MEMORY

- 512MB ECC-protected SDRAM at 133 MHz, scalable to 2GB
- 64MB user flash, scalable to 128MB
- 2MB boot flash

SOFTWARE

- VxWorks real-time operating system (supports loosely coupled multiprocessing)
- Linux operating system (with SMP and full MESI support)

SYSTEM CONTROLLER

- Highly integrated Marvell Discovery II
- Integrated 2Mb SRAM
- CPU interface: 2.5V, 64-bit 60x/MPX bus (100/133 MHz)
- DDR interface: 2.5V, 72-bit (64-bit, 8-bit ECC)

I/O CAPABILITIES

- Dual/independent Gigabit Ethernet serial interfaces
- Dual RS-232 controllers PCI interface
- Monarch or non-monarch mode
- 64-bit/66 MHz PCI bus
- Four-channel DMA controller
- I²C interface for multiple EEPROMs debug support
- JTAG interface

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