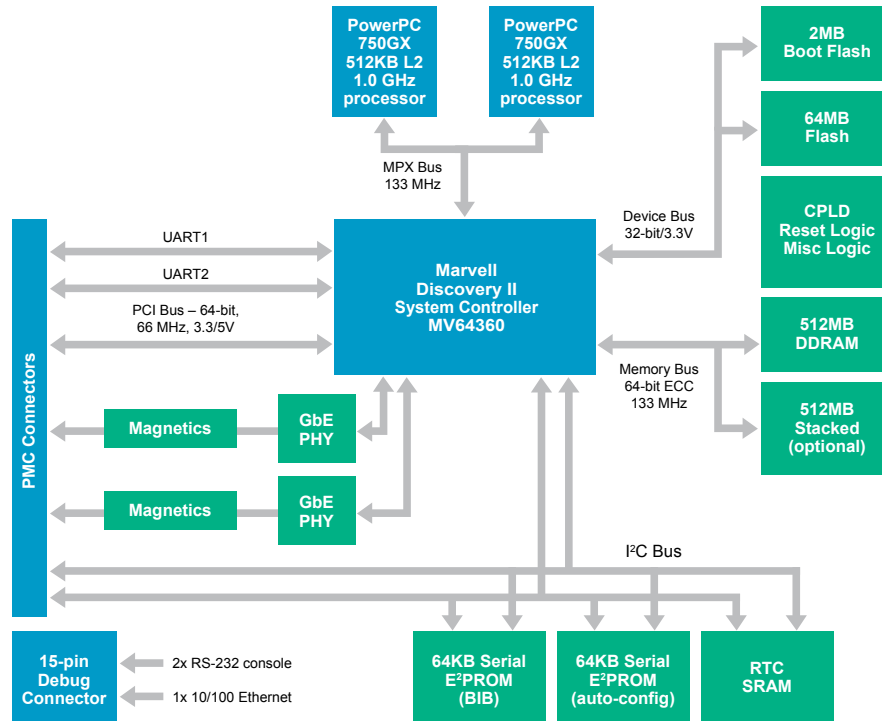# PrPMC2750

Processor PMC Module

The Emerson PrPMC2750 is a high performance, high quality PowerPC processor PCI mezzanine card (PMC) in a module form factor.

- PowerPC 750GX processor at up to 1.0 GHz in single-processor configuration
- Optional dual-processor configuration
- Highly integrated Marvell Discovery II system controller
- Up to 1GB DDR SDRAM memory
- 64-bit/66 MHz PCI bus interface
- 64MB on-board flash memory
- Configurable monarch/non-monarch mode
- Dual/independent Gigabit Ethernet interfaces
- Dual serial interfaces

The Emerson PrPMC2750 is a high performance, high quality PowerPC® processor PCI mezzanine card (PMC) in a module form factor for space-constrained industrial control, communications, benign defense and aerospace, and other demanding applications. By adhering to industry standard technologies like PMC and PowerPC, the PrPMC2750 offers the advantage of solutions with flexibility, reliability, and longevity.

RoHS 6/6 COMPLIANT

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PrPMC2750 Block Diagram

```
                PowerPC            PowerPC
                750GX              750GX                           2MB
                512KB L2           512KB L2                        Boot Flash
                1.0 GHz            1.0 GHz
                processor          processor                       64MB
                                                                   Flash
                        MPX Bus
                        133 MHz                                    CPLD
                                                Device Bus         Reset Logic
   UART1                                        32-bit/3.3V        Misc Logic
   UART2                         Marvell
                                 Discovery II
   PCI Bus – 64-bit,             System Controller                512MB
   66 MHz, 3.3/5V                MV64360                           DDRAM

                                                Memory Bus
                                                64-bit ECC         512MB
                         GbE                    133 MHz            Stacked
   Magnetics             PHY                                       (optional)

                         GbE
   Magnetics             PHY
                                                     I²C Bus

   15-pin         2x RS-232 console    64KB Serial    64KB Serial    RTC
   Debug                               E²PROM         E²PROM         SRAM
   Connector      1x 10/100 Ethernet   (BIB)          (auto-config)
```

PMC Connectors

Specifications

PROCESSOR

- PowerPC 750GX processor at up to 1.0 GHz in single-processor configuration
- Dual processor configuration optional

MEMORY

- 512MB ECC-protected SDRAM at 133 MHz, scaleable to 1GB
- 64KB L1 cache, 1MB L2 cache
- 64MB user flash
- 2MB boot flash

SYSTEM CONTROLLER

- Integrated 2Mb SRAM
- CPU interface – 1.8/2.5V, 64-bit 60x/MPX bus (100/133 MHz)
- SDRAM interface – 3.3V, 72-bit (64-bit, 8-bit ECC)

I/O CAPABILITIES

- Ethernet
  - 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

SOFTWARE

- VxWorks real-time operating system (supports loosely coupled multiprocessing)
- Linux operating system (single CPU variant)

Ordering Information

Part Number	Description
PRPMC2750S-0001	1GHz MPC750GX processor, 512MB DDR SDRAM memory, 64MB flash, 6E

SOLUTION SERVICES

Emerson Network Power provides a portfolio of solution services optimized to meet your needs throughout the product lifecycle. Design services help speed time-to-market. Deployment services include global 24x7 technical support. Renewal services enable product longevity and technology refresh. Plus solution extras include enhanced warranty and repairs.

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