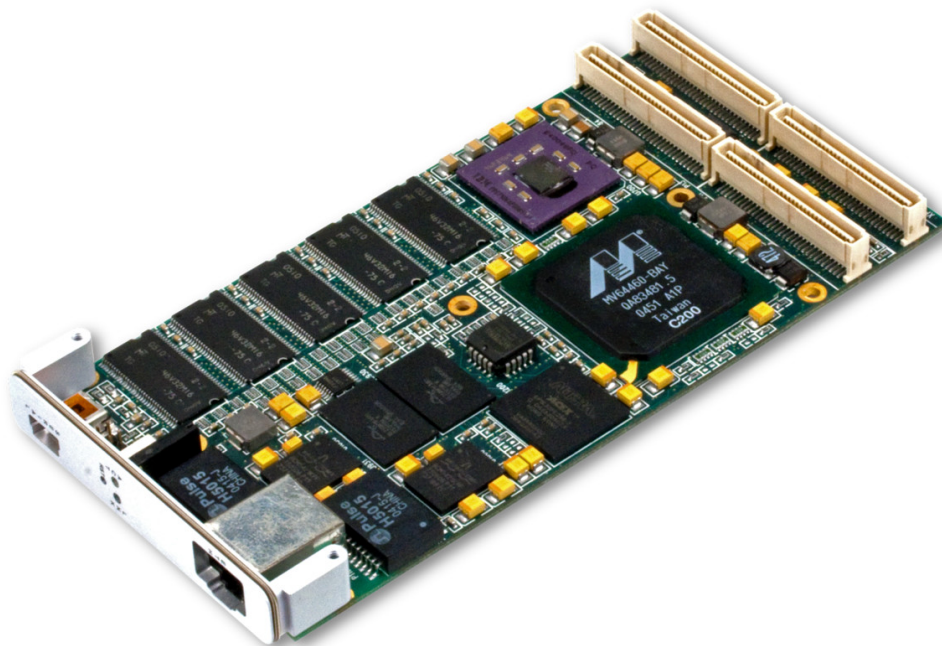


# XPedite4002

**End Of Life**

IBM 750GX PowerPC Processor-Based PMC Module with Two Gigabit Ethernet Ports **Please contact X-ES Sales**

- ▶ IBM PowerPC 750GX processor at up to 1 GHz
- ▶ 133 MHz PCI-X PrPMC and local bus interfaces
- ▶ Up to 1 GB, DDR-400 SDRAM
- ▶ Up to 128 MB soldered NOR flash
- ▶ PTMC Configuration 5 P14 Ethernet
- ▶ Two 10/100/1000BASE-T Ethernet ports
- ▶ Front panel/rear I/O
- ▶ Integrated 1 MB L2 cache
- ▶ Linux BSP
- ▶ Wind River VxWorks BSP
- ▶ QNX Neutrino BSP
- ▶ Green Hills INTEGRITY BSP



## XPedite4002

The XPedite4002 is a high-performance Processor PMC (PrPMC) module. A PCI-X PMC interface provides the system designer with ample bandwidth for I/O-intensive applications. Two front panel Ethernet ports provide a flexible I/O interface by auto-negotiating between 10, 100, and 1000 Mbps operation.

The XPedite4002 utilizes the IBM PowerPC 750GX embedded processor and Marvell Discovery III system controller. With integrated PCI-X, DDR SDRAM, and Ethernet interfaces, the XPedite4002 offers a highly-optimized solution for packet processing and general computing applications. A serial and 10/100/1000BASE-T Ethernet interface are accessible through the front panel. One or two 10/100/1000BASE-T Ethernet interfaces, two serial interfaces, and two GPIO pins are accessible through P14 I/O. The XPedite4002 is available in both 10 mm and 15 mm stacking heights.

The XPedite4002 is ideal for PrPMC applications requiring low cost and power yet high bandwidth and processing performance. The 750GX processor, while operating at 1 GHz, provides 2320 DMIPs of processing power.

# X-ES

Extreme Engineering Solutions

*...Always Fast*

### Extreme Engineering Solutions

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**Processor**

- IBM PowerPC 750GX
- 1 GHz max processor speed
- 200 MHz 60x bus
- 32 kB L1 instruction/data caches
- 1 MB L2 cache

**Non-Volatile Storage**

- Up to 128 MB surface mount flash
- 512-bytes SEEPROM

**Ethernet**

- Two Ethernet controllers
- Auto-negotiates between 10/100/1000 Mbps
- Front panel/rear I/O

**DDR SDRAM**

- Up to 1 GB at DDR-400

**Front Panel I/O (Optional)**

- One 10/100/1000BASE-T Ethernet port
- One RS-232 serial port
- Link and activity LEDS

**Rear I/O**

- PTMC Configuration 5 pinout
- One or two 10/100/1000BASE-T Ethernet ports
- Two GPIO pins
- Two RS-232 serial ports

**RTC**

- M41T00 I<sup>2</sup>C timekeeper
- 60 hour clock retention

**Software**

- Linux BSP
- Wind River VxWorks BSP
- QNX Neutrino BSP
- Green Hills INTEGRITY BSP
- OSE BSP

**Physical Characteristics**

- PMC form factor
- Dimensions: 149 mm x 74 mm, 10 or 15 mm stacking height

**Environmental Requirements**

Contact factory for appropriate board configuration based on environmental requirements.

- Supported ruggedization levels (see chart below): 1
- Conformal coating available as an ordering option

**Power Requirements (Estimate)**

- 3.3 V, 6 A, 19.8 W

Ruggedization Level	Level 1	Level 3	Level 5
Cooling Method	Standard Air-Cooled	Rugged Air-Cooled	Conduction-Cooled
Operating Temperature	0 to +55°C ambient (300 LFM)	-40 to +70°C (600 LFM)	-40 to +85°C (board rail surface)
Storage Temperature	-40 to +85°C ambient	-55 to +105°C ambient	-55 to +105°C (maximum)
Vibration	0.002 g <sup>2</sup> /Hz (maximum), 5 to 2000 Hz	0.04 g <sup>2</sup> /Hz (maximum), 5 to 2000 Hz	0.1 g <sup>2</sup> /Hz (maximum), 5 to 2000 Hz
Shock	20 g, 11 ms sawtooth	30 g, 11 ms sawtooth	40 g, 11 ms sawtooth
Humidity	0% to 95% non-condensing	0% to 95% non-condensing	0% to 95% non-condensing

