

XPedite1005

End Of Life

Applied Micro 440GX PowerPC Processor-Based PrPMC Module with Dual Gigabit Fiber Ethernet

Please use XPedite5500

- ▶ Applied Micro PowerPC 440GX 533-800 MHz processor
- ▶ 133 MHz PCI-X PrPMC and local bus interfaces
- ▶ Up to 512 MB, DDR-333 SDRAM
- ▶ Up to 128 MB soldered flash
- ▶ 512 kB socketed flash
- ▶ Two Gigabit SFP fiber ports
- ▶ One RS-232 serial port
- ▶ Integrated 256 kB SRAM or L2 cache
- ▶ Linux BSP
- ▶ Wind River VxWorks BSP



XPedite1005

The XPedite1005 is a high-performance Processor PMC (PrPMC) module with two front panel Gigabit Fiber SFP (Small Form-Factor Pluggable) Ethernet ports, allowing for maximum flexibility for all your fiber optic needs. Each fiber interface is fully IEEE 802.3 compliant over single or multimode fiber optics with either LC or MTRJ connector styles.

The XPedite1005 utilizes the low-power Applied Micro PowerPC 440GX embedded processor. With integrated PCI-X, DDR SDRAM, and Ethernet interfaces, the 440GX offers a highly optimized solution for packet processing and general computing applications. The serial and Gigabit fiber Ethernet interfaces are accessible through the front panel. A SO-DIMM DDR SDRAM memory slot and socketed boot flash provide flexible field upgradeability.

The XPedite1005 is ideal for PrPMC applications requiring low cost and power yet high bandwidth and processing performance. The 440GX processor dissipates only 3 W while operating at 667 MHz and provides 1334 DMIPs of processing power.

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Processor

- Applied Micro PowerPC 440GX
- 800 MHz max processor speed
- 133 MHz PCI-X interface
- 32 kB L1 instruction/data caches
- 256 kB L2 cache/SRAM
- DDR-333 SDRAM interface
- Two Gigabit Ethernet controllers

Non-Volatile Storage

- Up to 144 MB surface mount flash
- 512 kB socketed flash
- 512 bytes SEEPROM

Fiber Ethernet

- 850 nm multimode or 1300 nm singlemode
- LC or MTRJ connector styles
- 1000 Mbps

DDR SDRAM

- SO-DIMM slot
- Up to 512 MB at up to 333 MHz
- 2.6 Gb/s peak bandwidth

Front Panel I/O

- Two Gigabit Ethernet ports
- One RS-232 serial port
- Link and activity LEDs

Rear I/O

- Two Gigabit Ethernet ports
- One GPIO port
- One I²C port

RTC

- M41T00 I²C timekeeper
- 60 hour clock retention

Software Support

- Linux BSP
- Wind River VxWorks BSP
- Ethernet, I²C, and RTC drivers

Physical Characteristics

- PMC form factor
- Dimensions: 149 mm x 74 mm, 10 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, 2.42 A, 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 ambient
Vibration	0.002 g ² /Hz, 5 to 2000 Hz	0.04 g ² /Hz (maximum), 5 to 2000 Hz	0.1 g ² /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

