

XPedite1010

End of Life

Applied Micro 440GX PowerPC Processor-Based PCI Card with Dual Gigabit Ethernet

- ▶ Applied Micro PowerPC 440GX 533-800 MHz processor
- ▶ 133 MHz PCI-X PrPMC and local bus interfaces
- ▶ Up to 512 MB SO-DIMM DDR-333 SDRAM
- ▶ Up to 144 MB soldered flash
- ▶ 512 kB socketed flash
- ▶ Two Gigabit Ethernet ports
- ▶ One front panel RS-232 serial port
- ▶ Integrated 256 kB SRAM or L2 cache
- ▶ Linux BSP
- ▶ Wind River VxWorks BSP
- ▶ Green Hills INTEGRITY BSP
- ▶ LynuxWorks LynxOS BSP



XPedite1010

The XPedite1010 is a high-performance Processor PCI card. A PCI-X 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 XPedite1010 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 XPedite1010 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.

X-ES

Extreme Engineering Solutions

...Always Fast

Extreme Engineering Solutions

3225 Deming Way, Suite 120 • Middleton, WI 53562
 Phone: 608.833.1155 • Fax: 608.827.6171
 sales@xes-inc.com • <http://www.xes-inc.com>

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
- Two serial controllers
- Two I²C controllers

Non-Volatile Storage

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

Ethernet

- Auto-negotiates between 10/100/1000 Mbps
- Front panel

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

RTC

- M41T00 I²C timekeeper
- 60 hour clock retention

Software

- Linux BSP
- Wind River VxWorks BSP
- QNX Neutrino BSP
- Green Hills INTEGRITY BSP
- Lynuxworks LynxOS BSP
- Ethernet, I²C, and RTC drivers

Physical Characteristics

- PCI form factor
- Dimensions: 163 mm x 96.5 mm

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, 2.16 A, 7.13 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

