

XPedite1032

Dual Gigabit Ethernet Conduction Cooled 3U cPCI Module Based on AMCC 440GX PowerPC Processor

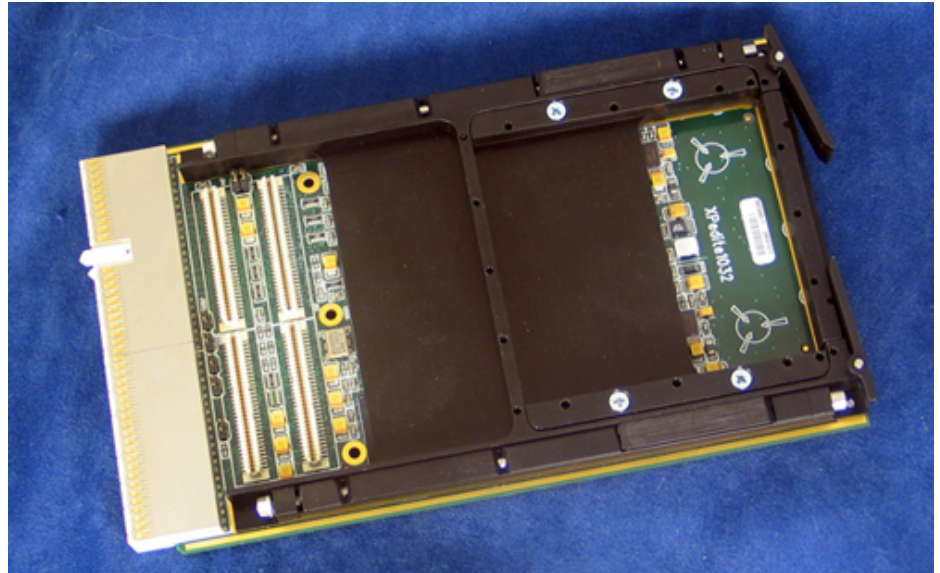
XPedite1032

Features

- AMCC PowerPC 440GX 533-800MHz Processor
- Conduction Cooled 3U cPCI
- Conduction Cooled PMC Slot (CCPMC)
- Up to 256MB 266MHz DDR SDRAM
- 128MB Soldered Flash
- Two 10/100/1000Mbps Ethernet Ports
- Two RS232 Serial Ports
- Backplane I/O
- PrPMC Support
- Integrated 256KB SRAM or L2 Cache
- VxWorks Driver and BSP
- Linux LSP
- Green Hills INTEGRITY
- QNX

Typical Applications

- LAN/WAN Networking
- Processing Node
- Baseboard Controller



XPedite1032 is a high-performance Conduction Cooled 3U Compact PCI (cPCI) module capable of hosting one single width Conduction Cooled PMC (CCPMC). The XPedite1032 is tolerant of half-sine impact shock up to 40g peak for 6ms and random vibration of 0.1g2/Hz from 50 to 2000Hz. Two backplane Gigabit Ethernet ports provide a flexible I/O interface by auto-negotiating between 10, 100, and 1000Mbps operation.

XPedite1032 utilizes the low power AMCC PowerPC 440GX embedded Processor. The 440GX processor dissipates only 3 Watts while operating at 667Mhz and provides 1334 DMIPs of processing power. With integrated PCI, DDR SDRAM, and Gigabit Ethernet interfaces, the 440GX offers a highly optimized solution for packet processing and general computing applications. The serial and Gigabit Ethernet interfaces are accessible through the backplane J2 connector. 256MB of onboard DDR memory up to 128MB soldered boot flash allow for maximum flexibility.

XPedite1032 is ideal for 3U cPCI applications in extended temperature, shock, and vibration environments that require high bandwidth and processing performance.

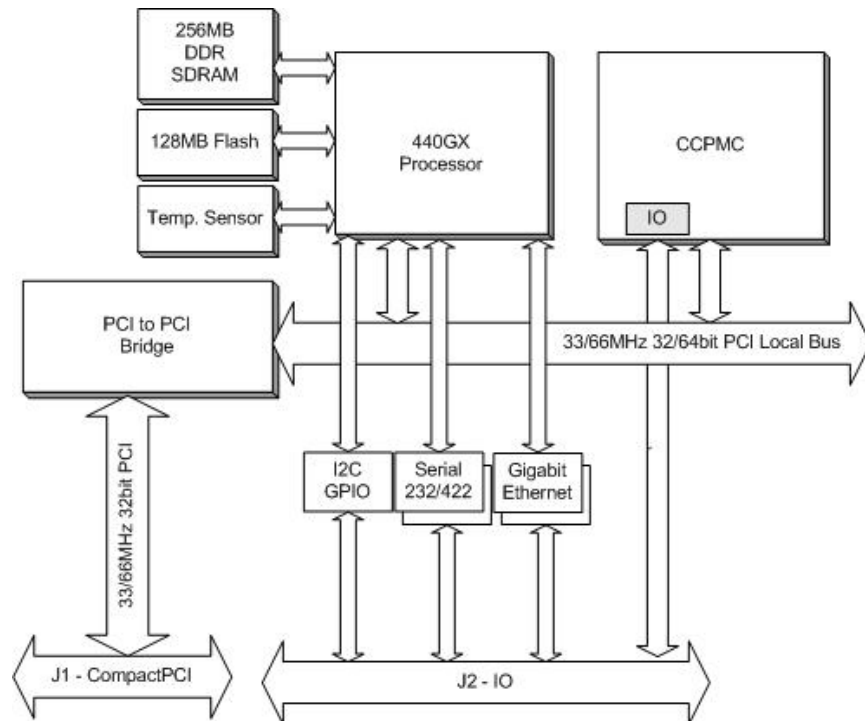
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Block Diagram

XPedite1032



Processor

- AMCC PowerPC 440GX
- 533-800MHz Processor Speed
- 66MHz PCI Interface
- 32K L1 Instruction/Data Caches
- 256KB L2 Cache/SRAM
- 266MHz DDR SDRAM Interface
- 2 Gigabit Ethernet Controllers
- 2 Serial Controllers
- 2 I2C Controllers

Non-Volatile Storage

- 128MB Surface Mount Flash
- 2KB Serial EEPROM

Ethernet

- Autonegotiates between 10/100/1000Mbps
- Rear I/O

DDR SDRAM

- Supports up to 256MB
- Operates at up to 266MHz

DDR SDRAM (cont.)

- Peak memory bandwidth of 2.6GBps

Rear I/O

- Two Gigabit Ethernet Ports
- Two RS232 Serial Ports
- One I2C Port

Software

- VxWorks BSP
- Linux LSP
- Green Hills INTEGRITY
- QNX
- Ethernet, I2C Drivers

Physical

- Conduction-Cooled 3U cPCI Form Factor
- 100mm x 160mm
- Board Weight: 8.3 oz.
- 10mm PMC Stacking Height

Humidity

- 0% to 85%

Shock

- 40g peak half-sine, 6ms

Random Vibration

- 0.1g2/Hz from 50 to 2000Hz

Storage Temperature

- -55 to +105C

Operating Temperature

- -40 to +85C, at thermal interface

Power Requirements(*)

- +3.3V 2.5A 8.25W
- +5.0V 0.01A 0.05W
- +12.0V 0.00A 0.0W
- -12.0V 0.00A 0.0W

*Test configuration

- CPU at 533MHz
- 256MB DDR at 266MHz
- Both Gigabit Ethernet ports linked at 1000Mbps
- All Interfaces Active

