XChange1104

End of Life

Conduction- or Air-Cooled 6U cPCI Dual-PrPMC Carrier Card with AMCC PPC440GX and PICMG 2.16 Please contact X-ES Sales

- AMCC PowerPC 440GX 533-800 MHz processor
- 100 MHz PCI-X cPCI and local bus interfaces
- Autosense system/peripheral slot
- ➤ Hot Swap support
- Up to 1 GB DDR-333 SDRAM
- Up to 512 MB soldered flash
- 4 MB socketed flash
- Up to 1 GB Compact flash
- Two front panel Gigabit Ethernet ports
- > Front panel serial port
- Two PICMG 2.16 backplane Ethernet ports
- Complies with PICMG 2.0, 2.1, 2.3, 2.9, and 2.16
- Wind River VxWorks BSP
- Linux BSP
- > IPMI driver



XChange1104

The XChange1104 is a 6U CompactPCI dual-PrPMC carrier card with a PICMG 2.16 Gigabit Ethernet interface. With PCI-X support on both CompactPCI and local bus interfaces, the XChange1104 is ideal for applications requiring high bandwidth and the flexibility that PMC modules offer.

Based on the AMCC PowerPC 440GX Embedded Processor, the XChange1104 is armed with the processing power needed for demanding applications. With integrated PCI-X, DDR SDRAM, and Gigabit Ethernet interfaces, the 440GX offers a highly optimized, yet cost-effective solution for packet processing and general computing.

Hot Swap support allows the XChange1104 to be installed into a live system without disrupting CompactPCI bus activity. In addition, system management bus support allows the card to be powered down and reset remotely through the IPMI interface.



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Processor

- AMCC PowerPC 440GX processor
- 800 MHz max. processor speed
- 100 MHz PCI-X Interface
- 32 kB L1 instruction / data caches
- 256 kB L2 cache / SRAM
- DDR-333 SDRAM interface
- Two 10/100/1000 Mbps Ethernet controllers

Memory

- Up to 1 GB DDR-333 SDRAM
- Up to 512 MB soldered flash
- 4 MB socketed flash
- Up to 1 GB CompactFlash
- 512-byte SEEPROM

cPCI

- 66 MHz 64-bit PCI interface to J1 and J2
- PICMG 2.1 (Hot Swap support)
- PICMG 2.3 (PMC I/O to J3 and J5)
- PICMG 2.9 (dedicated IPMI controller)
- PICMG 2.16 (two 10/100/1000BASE-T Ethernet ports)

PCI-X PMC Slots

- Maximum aggregate bandwidth of 1 Gb/s
- Processor PMC (PrPMC) support
- · 10 mm stacking height

Software Support

- Linux BSP
- Wind River VxWorks BSP
- · Ethernet and IPMI drivers

Front Panel

- Serial interface
- Two 10/100/1000 Ethernet ports

Physical

- 6U cPCI form factor
- 233.35 mm x 160 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

- 3.3 V. 3.48 A. 11.5 W
- 5 V, 0.1 A, 0.5 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 ² /Hz (maximum), 5 to 2000 Hz	0.04 g ² /Hz (maximum), 5 to 2000 Hz	0.1 g²/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

