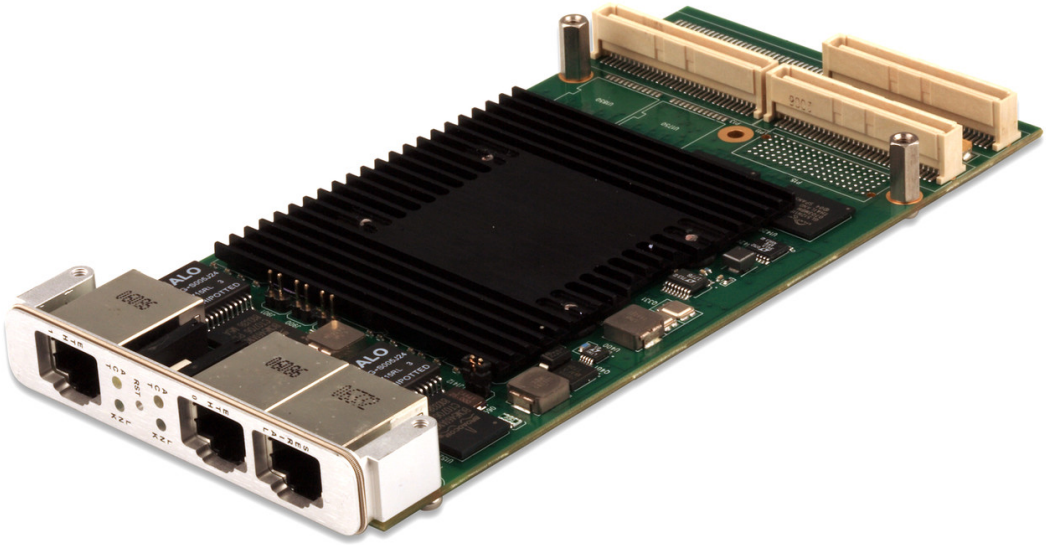
XPedite5200

Freescale MPC8548E PowerQUICC™ III based XMC/PrPMC Module with Dual Gigabit Ethernet

- Freescale MPC8548E PowerQUICC™ III processor at up to 1.333 GHz
- Two front panel Gigabit Ethernet interfaces
- 133 MHz, 64-bit PCI-X
- x8 PCI Express or x4 Serial RapidIO
- Up to 4 GB DDR2-400/533 SDRAM
- 512 kB L2 cache
- Double-precision Floating-Point Unit (FPU)
- Up to 256 MB soldered NOR flash
- Up to 2 GB NAND flash
- Two UARTs
- Wind River VxWorks BSP
- QNX Neutrino BSP
- Green Hills INTEGRITY BSP
- Linux BSP
- LynuxWorks LynxOS BSP



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The XPedite5200 is a high-performance, Processor PCI Mezzanine Card (PrPMC)/Switched Mezzanine Card (XMC) featuring the Freescale MPC8548E PowerQUICC™ III processor running at up to 1.333 GHz. The onboard PowerQUICC™ III provides integrated 64-bit PCI-X, DDR2-400/533 SDRAM, PCI Express/Serial RapidIO, and four Gigabit Ethernet interfaces, making the XPedite5200 an optimal solution for communications processing and general computing applications alike.

When used as an XMC (VITA 42) module, either the x8 PCI Express or x4 Serial RapidIO interfaces can be used, in parallel or in substitution of the PCI-X interface. With software supplied by Extreme Engineering Solutions, the XPedite5200 can be installed on standard VME and CompactPCI (cPCI) platforms as well as custom motherboards that support PMC sites.

The XPedite5200 provides two Gigabit Ethernet interfaces via the front panel and supports an additional two via the P14 backplane connector.

X-ES
Extreme Engineering Solutions

...Always Fast

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Processor

- Freescale MPC8548E PowerQUICC™ III processor
- Embedded PowerPC e500 core at up to 1.333 GHz
- 3065 MIPS at 1.333 GHz
- 32 kB L1 instruction/data caches
- 512 kB L2 cache
- Double-precision Floating-Point Unit
- Integrated MMU
- DDR2-533 SDRAM interface
- x8 PCI Express or x4 Serial RapidIO
- 133 MHz, 64-bit PCI-X 1.0a interface
- Four 10/100/1000 Mbps, IEEE 802.3-compliant Ethernet controllers
- Two serial controllers
- Two I²C controllers

Memory

- Up to 4 GB DDR2-400/533 SDRAM
- Up to 256 MB NOR flash
- Up to 2 GB NAND flash
- 2 kB SEEPROM

XMC

- x8 PCI Express (VITA 42.3)
- x4 Serial RapidIO (VITA 42.2)
- IPMI support
- GPIO on user data

RTC

- M41T00 I²C timekeeper
- 60 hour clock retention

Front Panel I/O

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

Rear I/O

- Two Gigabit Ethernet ports
- Four GPIO pins
- Two RS-232 serial ports

Software

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

Physical Characteristics

- XMC/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

- Power will vary based on configuration and usage. Please consult factory.

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 g²/Hz, 5 to 2000 Hz	0.04 g²/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