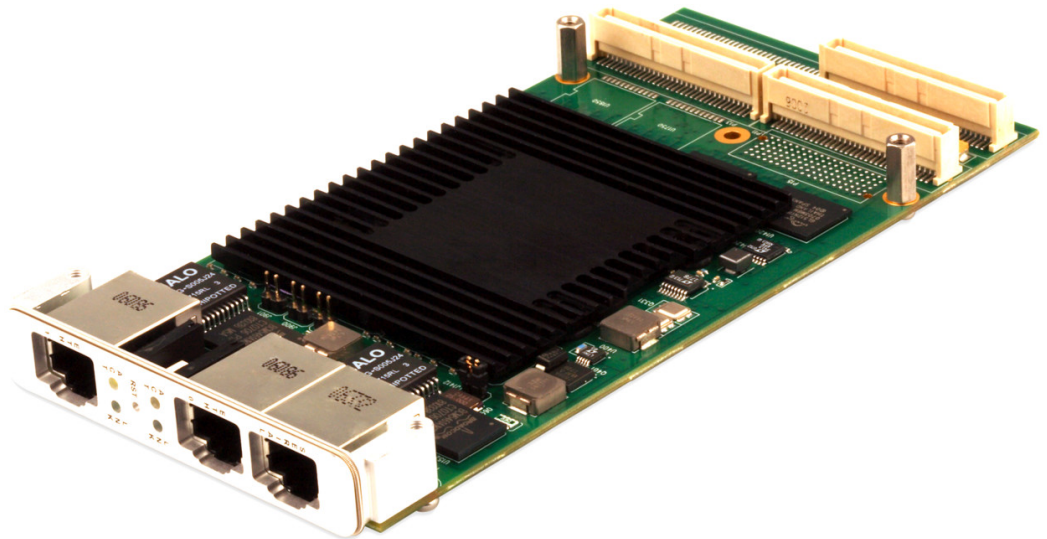


# XPedite5200

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

- ▶ NXP MPC8548E PowerQUICC™ III processor at up to 1.333 GHz
- ▶ Two rear and two front panel Gigabit Ethernet ports
- ▶ Two rear and one front panel RS-232 serial ports
- ▶ Eight GPIO pins to P14
- ▶ 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
- ▶ LynxWorks LynxOS BSP



## XPedite5200

The XPedite5200 is a high-performance, Processor PCI Mezzanine Card (PrPMC)/Switched Mezzanine Card (XMC) featuring the NXP (formerly Freescale) PowerQUICC™ III MPC8548E 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 ports, 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 ports via the front panel and supports an additional two via the P14 backplane connector.

# X-ES

Extreme Engineering Solutions

*...Always Fast*

### Extreme Engineering Solutions

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**Processor**

- NXP (formerly Freescale) PowerQUICC™ III MPC8548E 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 (FPU)
- Integrated MMU
- DDR2-533 SDRAM interface
- x8 PCI Express or x4 Serial RapidIO
- 133 MHz, 64-bit PCI-X 1.0a interface
- Four 10/100/1000BASE-T, IEEE 802.3-compliant Ethernet controllers
- Two serial controllers
- Two I<sup>2</sup>C 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 I<sup>2</sup>C 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
- Eight 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 (maximum)
Vibration	0.002 g <sup>2</sup> /Hz (maximum), 5 to 2000 Hz	0.04 g <sup>2</sup> /Hz (maximum), 5 to 2000 Hz	0.1 g <sup>2</sup> /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

