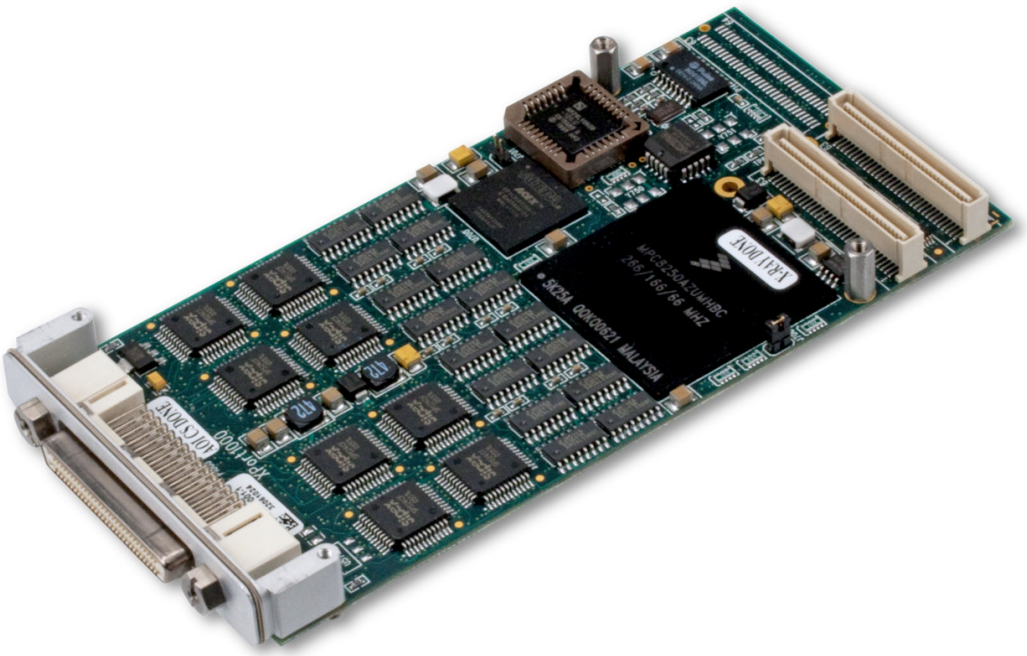
XPort1000

End Of Life

Freescale MPC8250 Processor-Based Multi-Protocol Four-Port Serial PrPMC Module

- Freescale MPC8250 PowerQUICC™ II processor at up to 266 MHz with integrated PCI
- Four SCCs support broad range of serial protocols
- Software configurable serial interface modes
- Front or rear I/O
- Up to 256 MB SDRAM
- Up to 16 MB soldered Flash
- 512 kB socketed Flash
- 2 kB SEEPROM
- Two RS-232 SMC ports
- Front or back panel 10/100BASE-T (optional)
- Wind River VxWorks BSP
- Linux BSP
- Microsoft Windows drivers



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The XPort1000 is an intelligent communications controller targeting high-performance, low-cost applications. The XPort1000 combines a wide array of supported serial protocols and a configurable I/O routing structure to pack maximum flexibility into an industry standard PMC module.

Powered by the Freescale MPC8260 (PowerQUICC™ II) processor, the XPort1000 implements four serial communication ports providing an EIA-530-A-compliant signal set supporting HDLC/SDLC, UART, transparent, and BiSync modes, along with NRZ, NRZI, FM0, FM1, Manchester and Differential Manchester encoding. Coupled with software configurable support for RS-232, RS-422, RS-423, RS-485, and MIL-STD-188-114, the XPort1000 provides a wide range of serial options.

The XPort1000 will drive down both cost and power consumption from your system design. The PCI bridge is integrated on-chip allowing the XPort1000 to draw up to 40% less power and cost up to 30% less than conventional designs based on other processors.

X-ES Extreme Engineering Solutions

...Always Fast

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Processor

- Freescale MPC8250 PowerQUICC™ II processor
- Embedded PowerPC G2 core
- Up to 266 MHz
- 280 Dhrystones at 200 MHz
- 66 MHz 60x bus
- 16 kB instruction and data caches
- 32 kB internal SRAM
- Integrated MMU
- Core-disabled mode supported

Memory

- Up to 256 MB SDRAM
- Up to 16 MB soldered Flash
- 512 kB socketed Flash
- 2 kB SEEPROM

Serial Communication Controller

- HDLC, UART, transparent and BiSync modes
- DPLL supporting NRZ, NRZI, FM0, FM1, Manchester and Differential Manchester
- Independent BRGs for each SCC transmitter and receiver
- Two external custom oscillators (optional)

Serial Interface

- Four DTE SCC ports supporting either RS-232, RS-422, RS-423, RS-485, or MIL-STD-188-114A Type I and II balanced/unbalanced modes
- 10 Mbps max synchronous
- 4 Mbps max asynchronous
- EIA-530-A DTE/DCE cable or software selectable

Software

- Linux BSP
- Wind River VxWorks BSP
- Wind River VxWorks, Linux, and Microsoft Windows drivers

Physical Characteristics

- 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 (Typical)

- +3.3 V, 0.6 A, 1.98 W
- +5.0 V, 0.35 A, 1.75 W
- +12.0 V, 0.012 A, 0.15 W
- -12.0 V, 0.012 A, 0.15 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 g²/Hz (maximum), 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