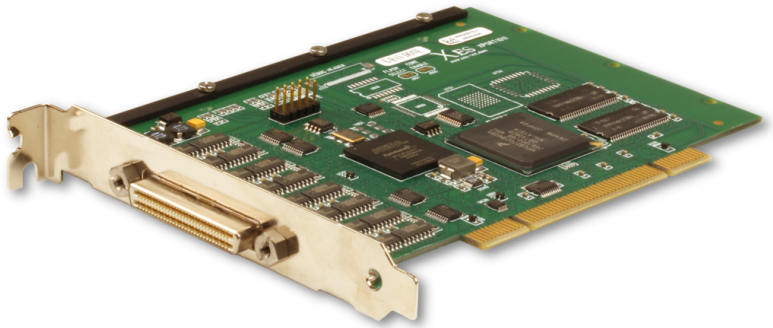
XPort1011

End Of Life

Freescale PowerQUICC™ II MPC8270 Processor-Based Multi-Protocol Four-Port Serial PCI Module

- Freescale PowerQUICC™ II MPC8270 at up to 300 MHz with integrated PCI
- Four SCCs support RS-232 or RS-422/485
- Software-configurable serial interface modes
- Front panel 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
- Linux BSP
- Wind River VxWorks BSP
- Wind River VxWorks, Linux, Microsoft Windows, and OSE drivers



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The XPort1011 is an intelligent communications controller targeting high-performance yet low-cost applications. The XPort1011 combines a wide array of supported serial protocols, a broad range of serial interface standards, and a flexible I/O routing structure, to pack maximum flexibility into an industry-standard PCI card.

Powered by the Freescale MPC8270 (PowerQUICC™ II), the XPort1011 implements four serial communication ports providing an EIA-530-A-compliant signal set, supporting HDLC/SDLC, UART, transparent, and BiSync modes, 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-188-114A (Type I and II, balanced or unbalanced), the XPort1011 provides maximum flexibility for your application.

For a system designer, the XPort1011 will help drive both cost and power consumption down. Because the PCI bridge is integrated on chip, the XPort1011 draws up to 40% less power, and costs up to 30% less than conventional designs based on other processors.

X-ES Extreme Engineering Solutions

...Always Fast

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Processor

- Freescale PowerQUICC™ II MPC8270 processor
- 300 MHz max processor speed
- 280 Dhrystones at 200 MHz
- 66 MHz 60x bus
- 16 kB L1 instruction/data caches
- 32 kB internal SRAM
- Integrated MMU
- Integrated Floating-Point Unit
- Core-disabled mode

Memory

- Up to 256 MB SDRAM
- 16 MB surface mount 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 transceiver
- Two external custom oscillators (optional)

Serial Interface (Standard)

- Software-configurable drivers for RS-232, RS-422, RS-423, RS-485, and 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 selectable

Software

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

Physical Characteristics

- PCI form factor
- 4.2 in. (L) x 5.875 in. (W)
- 3.8 oz.

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 (Estimate)

- 3.3 V, 0.60 A, 1.98 W
- 5 V, 0.35 A, 1.75 W
- +12 V, 0.012 A, 0.15 W
- -12 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 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