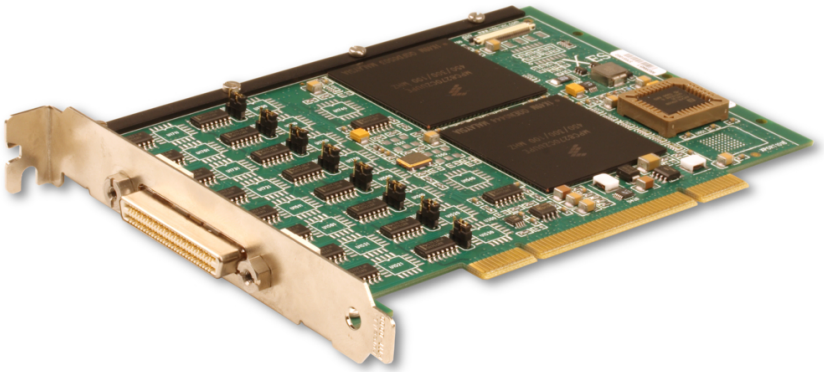
XPort1018

End of Life

Freescale MPC8270 Processor-Based Eight-Port RS-232 Serial PCI Module

- Freescale MPC8270 at up to 450 MHz with integrated PCI
- Eight SCCs support RS-232
- Up to 256 MB SDRAM
- Four RS-232 SMC ports
- One 10/100 Mbps Ethernet port
- Linux BSP
- Wind River VxWorks BSP



XPort1018

The XPort1018 is a communications controller targeting high-performance yet low-cost applications. The XPort1018 combines a wide array of supported serial protocols, an RS-232 serial interface, and a flexible I/O routing structure, to pack maximum flexibility into an industry-standard PCI form factor.

Powered by two Freescale MPC8270 (PowerQUICC II™) processors, the XPort1018 implements eight serial communication ports, each providing an eight-wire signal set (TXD, RXD, RTS, CTS, DCD, DTR, TXC, RXC). Coupled with support for HDLC/SDLC, UART, transparent, and BiSync modes, with NRZ, NRZI, FM0, FM1, Manchester and Differential Manchester encoding, the XPort1018 provides a wide range of serial options.

For the system designer, the XPort1018 will help drive both cost and power consumption down. Because the PCI bridge is integrated on chip and the processors are linked via the 60x bus, the XPort1018 draws less power and costs less than conventional designs based on other processors that require a PCI bridge.

X-ES Extreme Engineering Solutions

...Always Fast

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Processor

- Two Freescale MPC8270 processors
- 450 MHz max processor speed
- 280 Dhrystones at 200 MHz
- Up to 100 MHz 60x bus
- 16 kB L1 instruction/data caches
- 32 kB internal SRAM
- Integrated MMU
- Core-disabled mode
- 32-bit, 66-MHz PCI

Memory

- Up to 256 MB SDRAM

Front Panel Connections

- 120-pin serial I/O connector

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
- Optional external custom oscillators

Serial Interface

- RS-232 drivers and receivers
- 10 Mbps max synchronous
- 4 Mbps max asynchronous
- Eight wire interface (TXD, RXD, RTS, CTS, DCD, DTR, TXC, RXC)
- DTE mode

Software Support

- Linux BSP
- Wind River VxWorks BSP
- SCC, SMC, and Ethernet drivers

Physical Characteristics

- PCI form factor

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)

- 3.3V, 0.686 A, 2.26 W
- 5V, 0.347 A, 1.74 W
- +12V, 0.142 A, 1.7 W

Supported Ruggedization Level	Level 1
Cooling Method	Standard Air-Cooled
Operating Temperature	0 to +55°C ambient (300 LFM)
Storage Temperature	-40 to +85°C ambient
Vibration	0.002 g²/Hz, 5 to 2000 Hz
Shock	20 g, 11 ms sawtooth
Humidity	0% to 95% non-condensing