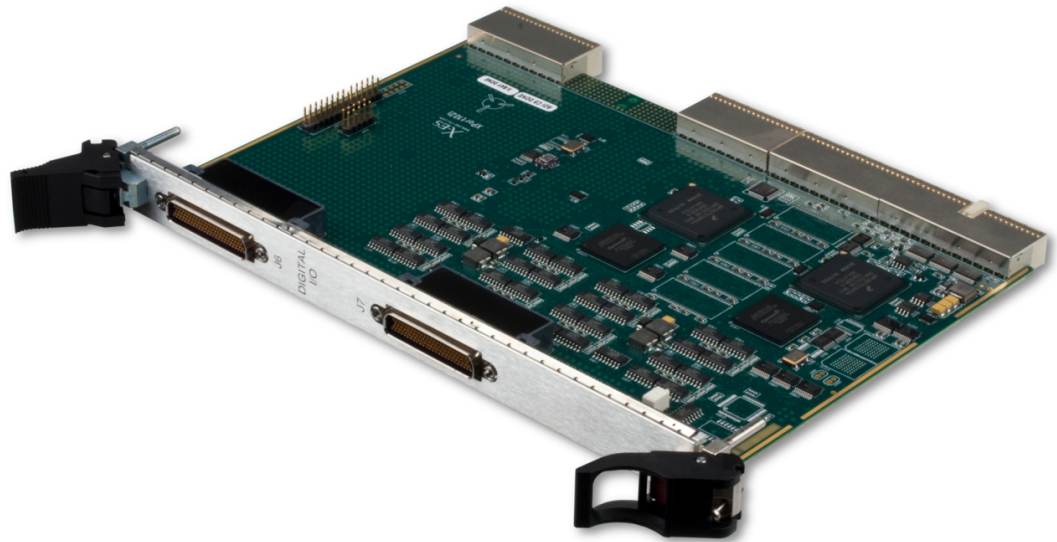


XPort1021

Freescale MPC8270 Processor-Based Multi-Protocol Eight-Port Serial 6U cPCI Module

- ▶ Freescale MPC8270 PowerQUICC™ II processors at up to 450 MHz with integrated PCI
- ▶ Eight SCCs supporting a broad range of serial protocols
- ▶ Up to 512 MB SDRAM
- ▶ Up to 128 MB soldered flash
- ▶ 512 kB socketed flash
- ▶ 2 kB SEEPROM
- ▶ Four RS-232 SMC ports
- ▶ Front panel serial port
- ▶ Wind River VxWorks BSP
- ▶ Linux BSP



XPort1021

The XPort1021 is an intelligent communications controller targeting high-performance yet low-cost applications. The XPort1021 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 cPCI form factor.

Powered by two MPC8270 (PowerQUICC II) processors, the XPort1021 implements eight serial communication ports, each 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-188-114, the XPort1021 provides a wide range of serial options.

The XPort1021 will minimize both the cost and power consumption of your system. Because the PCI bridge is integrated on-chip and the MPC8270s are linked via the 60x bus, the XPort1021 draws less power and costs less than conventional designs based on other processors that require a PCI bridge.

X-ES

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...Always Fast

Extreme Engineering Solutions

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Processor

- Two MPC8270 PowerQUICC II processors
- Embedded PowerPC G2 core
- Up to 450 Mhz
- 280 Dhrystones at 200 Mhz
- Up to 100-MHz 60x bus
- 16 kB instruction and data caches
- 32 kB internal SRAM
- Integrated MMU
- Core-disabled mode
- 32-bit, 66-MHz PCI

Memory

- Up to 512 MB SDRAM
- Up to 128 MB surface-mount flash and 512 KB socketed flash
- 2 kB SEEPROM

Front Panel I/O

- Two rugged 100-pin serial I/O connectors

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
- Optional external custom oscillators

Serial Interface

- Drivers software-configurable for RS-232, RS-422, RS-423, RS-485, and MIL-STD-188-114 balanced/unbalanced type 1 and 2 modes
- 10 Mbps max synchronous
- 4 Mbps max asynchronous
- EIA-530-A DTE/DCE cable selectable

Software

- Wind River VxWorks BSP
- SCC/SMC drivers
- Linux BSP

Physical Characteristics

- 6U CompactPCI form factor
- Dimensions: 233.35 mm x 160 mm
- Weight: 13.8 oz.

Environmental Requirements

Contact factory for appropriate board configuration based on environmental requirements.

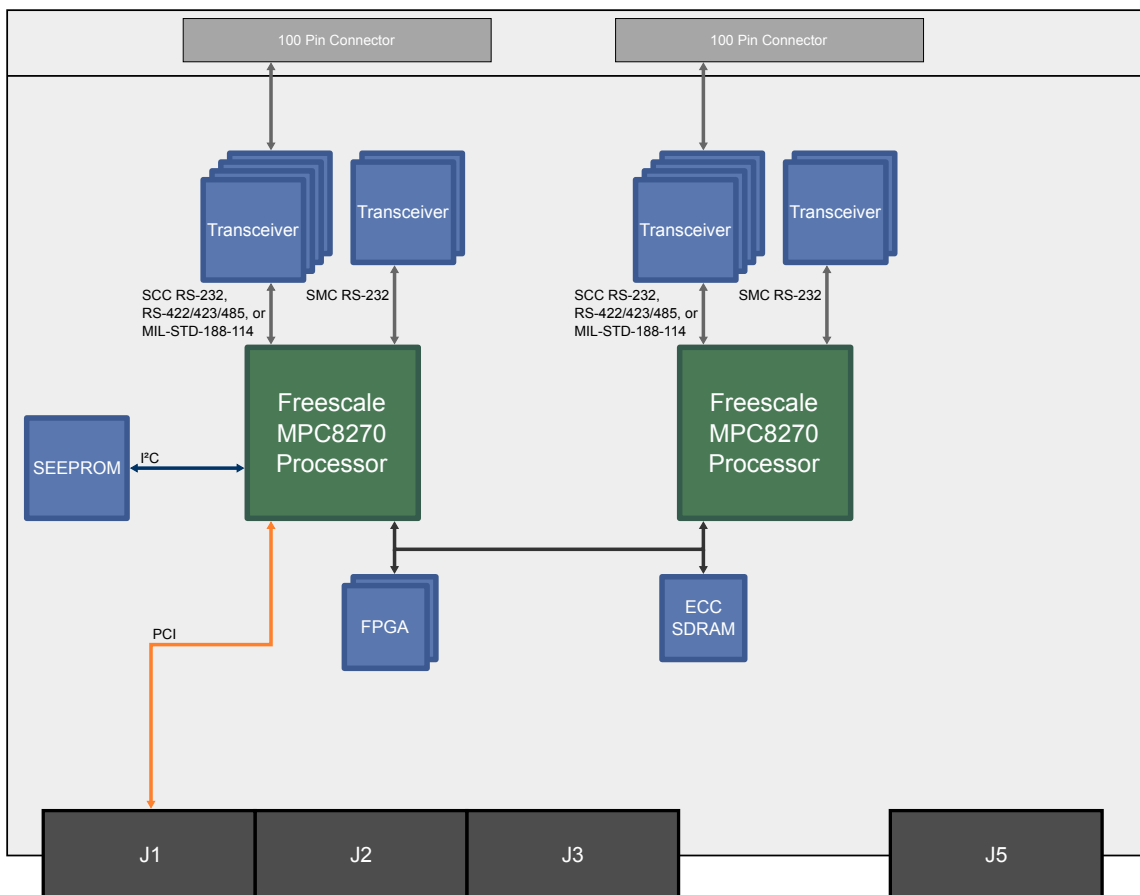
- Supported ruggedization levels (see chart below): 1
- Conformal coating available as an ordering option

Power Requirements (Estimate)

- 8 W

Supported Ruggedization Level

Supported Ruggedization Level	Level 1
Cooling Method	Standard Air-Cooled
Operating Temperature	0 to +55 °C ambient (300 LFM)
Storage Temperature	0 to +85 °C ambient
Vibration	0.002 g ² /Hz, 5 to 2000 Hz
Shock	20 g, 11 ms sawtooth
Humidity	0% to 95% non-condensing



XPort1021

