

XChange3012

3U VPX PCI Express and Gigabit Ethernet Integrated Switch with XMC Support

- › One x4 PCI Express port to each of six VPX cards
- › One 1000BASE-X Ethernet port to each of six VPX cards
- › Two 1000BASE-X Ethernet ports for cascading or two 10/100/1000BASE-T Ethernet ports for external I/O
- › Supports one XMC site with up to a x8 PCI Express link
- › Supports two 10/100/1000BASE-T and RS-232 XMC I/O



XChange3012

The XChange3012 is a conduction- or air-cooled 3U VPX module that provides both PCI Express and Ethernet switches. The PCIe and Gigabit Ethernet fabrics provide switching for a Star Topology. The Ethernet fabrics allow VPX cards within the system to communicate and also have access to an outside local area network.

The XChange3012 supports an XMC interface via a PCI Express link capable of supporting up to eight lanes. Dual 10/100/1000BASE-T rear I/O from the XMC are also routed directly to the XChange3012's Gigabit Ethernet switch. XMC RS-232 rear I/O can be brought out the P1 connector.

X-ES

Extreme Engineering Solutions

...Always Fast

Extreme Engineering Solutions

3225 Deming Way, Suite 120 • Middleton, WI 53562

Phone: 608.833.1155 • Fax: 608.827.6171

sales@xes-inc.com • <http://www.xes-inc.com>

Ethernet

- One 10-port Gigabit Ethernet switch
- Six 1000BASE-X VPX interfaces
- Two 10/100/1000BASE-T external interfaces
- Two 10/100/1000BASE-T XMC interfaces

PCI Express

- One 32-lane PCIe switch
- One 8-lane XMC interface
- Six 4-lane VPX interfaces

XMC

- One XMC site
- Rear RS-232 I/O routed to P1
- Dual 10/100/1000BASE-T I/O routed to the Ethernet switch

Environmental Requirements

Contact factory for appropriate board configuration based on environmental requirements.

- Supported ruggedization levels (see chart below): 1, 3, 5
- Conformal coating available as an ordering option

Physical Specification

- 3U VPX
- Dimensions: 100 mm x 160 mm
- 0.8 in. or 1.0 in. pitch

Power Requirements

- Maximum power consumption: 10 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 g ² /Hz, 5 to 2000 Hz	0.04 g ² /Hz (maximum), 5 to 2000 Hz	0.1 g ² /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

