

# 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
- › Up to two 1000BASE-X Ethernet ports for cascading
- › Up to two 10/100/1000BASE-T Ethernet ports for external I/O
- › Supports one XMC site with up to a x8 PCI Express link
- › Up to two 10/100/1000BASE-T XMC interfaces
- › XMC RS-232 rear 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 can be routed 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

*“Fast, Flexible, Customer-Focused  
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### Extreme Engineering Solutions

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**Compatible OpenVPX™ Switch Slot Profiles**

- MOD3-SWH-6F6U-16.4.1-2
- MOD3-SWH-6F6U-16.4.1-3
- MOD3-SWH-6F6U-16.4.1-10
- MOD3-SWH-6F6U-16.4.1-11
- MOD3-SWH-6F8U-16.4.10-1
- MOD3-SWH-6F8U-16.4.10-2

**Ethernet**

- One 10-port Gigabit Ethernet switch
- Up to eight 1000BASE-X VPX interfaces
- Up to two 10/100/1000BASE-T VPX interfaces
- Up to 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
- Up to two 10/100/1000BASE-T interfaces

**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 †	-40 to +70°C ambient †	-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 g <sup>2</sup> /Hz (maximum), 5 to 2000 Hz	0.04 g <sup>2</sup> /Hz (maximum), 5 to 2000 Hz	0.1 g <sup>2</sup> /Hz (maximum), 5 to 2000 Hz
Shock	20 g, 11 ms sawtooth	30 g, 11 ms sawtooth	40 g, 11 ms sawtooth
Humidity	Up to 95% non-condensing	Up to 95% non-condensing	Up to 95% non-condensing

† Contact factory for airflow rate details.

