

# XPort3303

Conduction- or Air-Cooled XMC with Dual 10 Gigabit Ethernet Interfaces and Rugged Optical Connector

- › Utilizes the Intel® 82599 (formerly Niantic) dual 10GbE controller
- › x8 PCI Express 2.0 VITA 42.3 P15 interface
- › Single rugged 10GBASE-SR optical connector
- › Up to two XAUI, 10GBASE-BX4, or 10GBASE-KX4 SerDes 10GbE backplane interfaces per VITA 42.6
- › Conduction- or air-cooled
- › Linux drivers
- › Wind River VxWorks drivers
- › Microsoft Windows drivers
- › Optional SR-IOV support
- › Optional IEEE 1588 support



## XPort3303

The XPort3303 is a conduction- or air-cooled dual 10 Gigabit Ethernet XMC with front and rear panel I/O support. A x8 PCI Express 2.0 port is routed per VITA 42.3 to the P15 connector for interfacing with the host module.

Front panel I/O for the 10 Gigabit Ethernet interfaces is provided with an integrated rugged 10GBASE-SR optical transceiver. This is a vastly superior alternative, rather than attempting to use large commercial SFP+ and optical modules for conduction-cooled, rugged, and extreme temperature environments. The XPort3303's optical LC connectors can support the same optical cables as standard SFP+ modules (slightly modified). The optical transceiver on the XPort3303 is positioned so that the optical cable can be run out of the front or bottom side of the module. This enables an optical 10 Gigabit Ethernet connection, even when front panel access to the module is not provided by the host module or the system, potentially preventing costly rework to the host card or chassis.

Backplane I/O for the 10 Gigabit Ethernet interface is supported with either XAUI, 10GBASE-BX4, or 10GBASE-KX4 protocols. The XPort3303 also supports IEEE 1588, and it supports the use of an externally sourced clock reference, such as a 1PPS, for synchronization.

# X-ES

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### 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 Controller**

- Intel® 82599 dual 10GbE controller
- Optional IEEE 1588 support
- Optional SR-IOV support

**Front Panel I/O Options**

- Integrated rugged 10 GbE 10GBASE-SR optical transceiver
- Enables optical connection without requiring front panel access from the host module or system

**Backplane I/O Options**

- Conduction- or air-cooled
- One XAUI, 10GBASE-BX4, or 10GBASE-KX4 10GbE interface (two available without front panel I/O)
- Routed per VITA 42.6 Link 2 and Link 3
- Supports optional external clock reference for IEEE 1588 synchronization

**XMC VITA 42.3 PCIe**

- x8 PCI Express 2.0 interface

**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

**Software Support**

- Linux drivers
- Wind River VxWorks drivers
- Microsoft Windows drivers

**Power Requirements**

- Power will vary based on configuration and usage. Please consult factory.

Supported 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 <sup>2</sup> /Hz, 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	0% to 95% non-condensing	0% to 95% non-condensing	0% to 95% non-condensing

