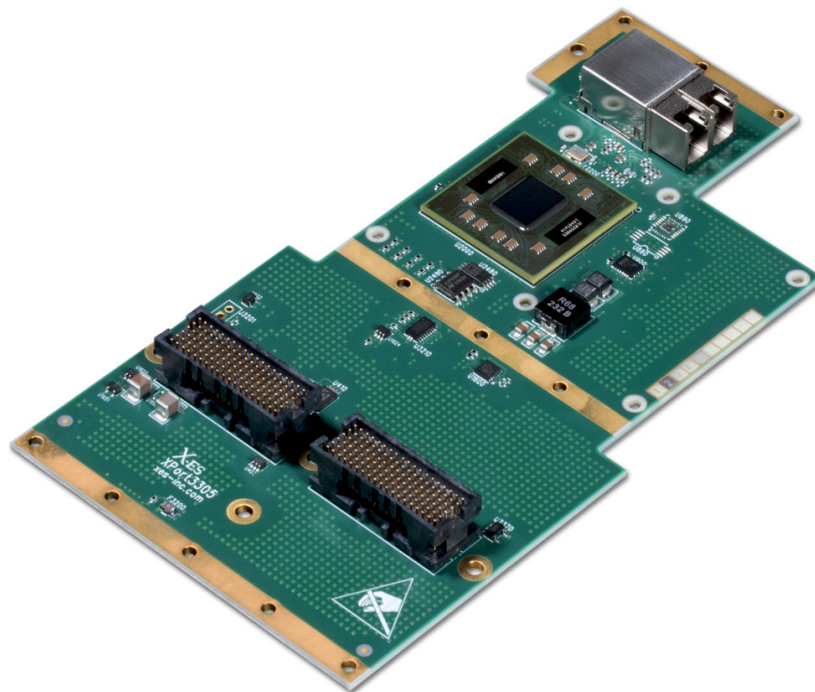


XPort3305

Conduction-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-cooled
- › Linux drivers
- › Wind River VxWorks drivers
- › Microsoft Windows drivers
- › SR-IOV support (optional)
- › IEEE 1588 support (optional)



XPort3305

The XPort3305 is a conduction-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 to attempting to use large, commercial SFP+ and optical modules for conduction-cooled, rugged, and extreme temperature environments. The XPort3305's optical LC connectors can support the same optical cables as standard SFP+ modules (slightly modified). The optical transceiver on the XPort3305 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 XPort3305 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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Ethernet Controller

- Intel® 82599 dual 10GbE controller
- IEEE 1588 support (optional)
- SR-IOV support (optional)

Front Panel I/O Options

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

Backplane I/O Options

- One XAUI, 10GBASE-BX4, or 10GBASE-KX4 10 Gigabit Ethernet 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): 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.

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 (maximum)
Vibration	0.002 g ² /Hz (maximum), 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

