XPort3308

Conduction-Cooled XMC Module with Up to 100 Gigabit Ethernet and Rugged Optical Connector

- One 100GBASE-KR4 or two 25GBASE-KR/ 50GBASE-KR2 Ethernet ports
- One 40GBASE-KR4 or two 10GBASE-KR Ethernet ports
- One rugged 25GBASE-SR optical connector (optional)
- x8 PCI Express Gen4-capable VITA 42.3 P15 interface
- Conduction-cooled
- Linux drivers
- IEEE 1588 PTP support
- SR-IOV support

XPort3308

The XPort3308 is a conduction-cooled 100 Gigabit Ethernet XMC module with up to four ports allocated between front and rear panel I/O. A x8 PCI Express Gen4-capable interface is routed per VITA 42.3 to the P15 connector for interfacing with the host module.

Front panel I/O for the 25 Gigabit Ethernet ports is provided with an optional integrated rugged 25GBASE-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 XPort3308's optical LC connectors can support the same optical cables as standard SFP+ modules (slightly modified). The optical transceiver on the XPort3308 is positioned so that the optical cable can be run out of the front or bottom side of the module. This enables an optical 25 Gigabit Ethernet connection even when front panel access to the module is not provided by the host module (as is common on VITA 20-compliant carriers) or the system, potentially preventing costly rework to the host card or chassis.

The XPort3308 is configured to support BASE-KR and BASE-KR4 protocols for rear I/O by default. Additional protocols can be supported as a build configuration, including 100GBASE-KR4, 100GBASE-CR4, 50GBASE-KR2, 50GBASE-CR2, 25GBASE-KR, 25GBASE-CR, 40GBASE-KR4, 40GBASE-CR4, 10GBASE-KR, and 10GBASE-CR.

X-ES
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Ethernet Controller

- IEEE 1588 PTP support
- SR-IOV support

Front Panel I/O Options

- Integrated rugged 25GBASE-SR Ethernet optical transceiver (optional)
- Enables optical connection without requiring front panel access from the host module or system

Rear I/O Options

- Four SerDes lanes capable of up to 25 Gigabit Ethernet, configurable as one 100GBASE-KR4 or two 25GBASE-KR/50GBASE-KR2 Ethernet ports (available only with VITA 61 or VITA 88 XMC connector placement, contact factory for details)
- Up to four SerDes lanes capable of 10 Gigabit Ethernet, configurable as one 40GBASE-KR4 or up to two 10GBASE-KR Ethernet ports
- Additional Ethernet protocols supported (contact factory for details)
- I²C and GPIO connectivity for external SFP/QSFP sideband connections

XMC

- x8 PCI Express Gen4-capable interface per VITA 42.3
- Ethernet routed per VITA 42.6 Link 2 and Link 3
- VITA 42, VITA 61, or VITA 88 connector build options determine supported Ethernet data rates (contact factory for details)

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

Contact factory for additional OS driver support details.

- Linux drivers

Power Requirements

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

Ruggedization Level	**Level 5**
Cooling Method	Conduction-Cooled
Operating Temperature	-40 to +85°C (board rail surface)
Storage Temperature	-55 to +105°C (maximum)
Vibration	0.1 g²/Hz (maximum), 5 to 2000 Hz
Shock	40 g, 11 ms sawtooth
Humidity	Up to 95% non-condensing