

# TITAN QUAD 10GbE XMC

## Rugged Optical LC

The Galleon Titan Quad 10Gigabit Ethernet XMC offers high-performance Ethernet for a wide range of applications. Based on the latest Intel XL710 (Forteville) 10GbE Controller, the Titan Quad channel 10GbE XMC supports IEEE 1588 Precision Time Protocol (PTP), making it suitable for time critical applications. The XL710 offers the latest UDP, TCP and IP checksum offload.

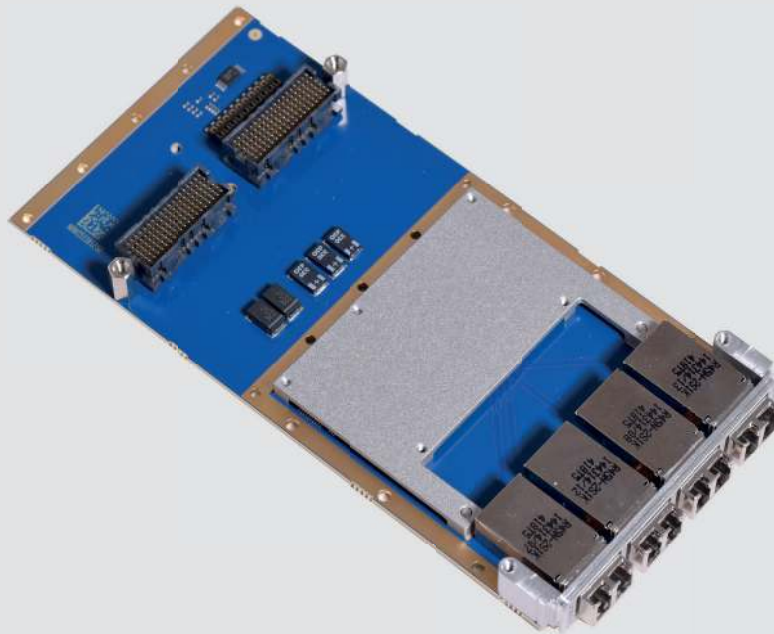
The board can be fitted with up to four rugged front panel connectors, or recessed rugged optical connectors for easy in-box optical cabling in conduction cooled environments. These are 10GBASE-SR connectors and the interfaces use 850nm multi-mode fiber connections. Rear I/O connections support one port 10GBASE-KX4 (or XAUI) through P16. The

Titan Quad port 10GbE XMC is available in both air cooled and conduction cooled variants to fit a wide range of single board computers (SBCs) in CPCI, VME or VPX form factor. A x8 PCI Express Gen2 host interface capable of running 2.5GT/s and 5.0GT/s ensures high bandwidth to the host.

An optional PCI Express card edge adapter offers easy integration in standard desktop systems for non rugged applications and software development. The Titan Quad Gigabit Ethernet board ships with both Linux and Windows software drivers.

Galleon Embedded Computing's quality management system is certified to Aerospace Standard AS/EN 9100:2016 and ISO 9001:2015.

### Titan Quad 10Gigabit Ethernet XMC



#### KEY FEATURES

- 4 channel optical 10GbE
- Gen 2 PCIe x8 (5GT/s) host interface
- Rugged optical duplex LC or rear I/O 10Gigabit Ethernet interfaces
- Air- and conduction cooled variants
- Windows and Linux drivers

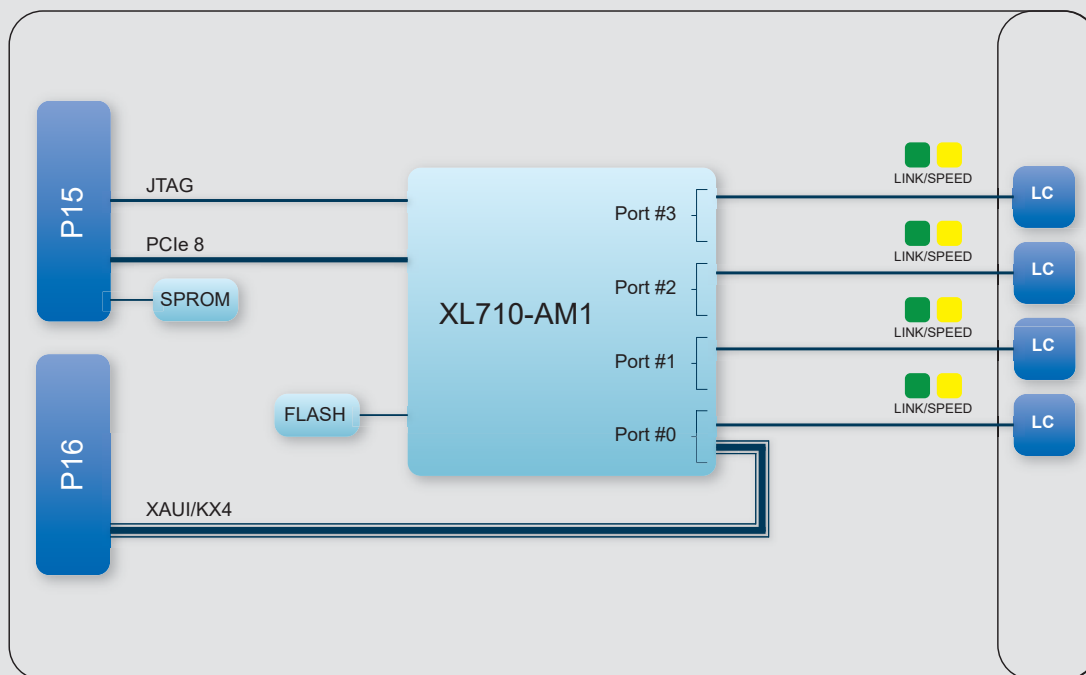
#### APPLICATIONS

- Server applications
- Network-attached storage devices
- Flight test
- High speed sensor data recording and simulation
- Video over Ethernet data capture
- Geological survey and seismic

#### BENEFITS

- High performance
- Low power
- Air- and conduction cooled

# TECHNICAL SPECIFICATION



## Ethernet Controller

- Intel XL710AM1 (Forteville)

## Interfaces

- 4x channels
- 10Gigabit Ethernet
- 850nm MM transceivers
- Front panel duplex LC optical connectors
- Rear I/O interface (XMC P16) supporting one port copper 10GBase-KX4 or XAUI
- Optional recessed LC connectors for easy internal optical cabling in conduction cooled systems without front panel connections

## Ethernet Capabilities

- UDP, TCP and IP checksum offload
- Support up to 8 VMs per port
- 8 TX and 8 RX queues per port
- IEEE 1588 PTP support
- Per packet timestamp

## Host Interface (XMC)

- x8 PCI Express 2.1 Gen2 (5GT/s)

## Operating Temperature

- -40°C to +71°C rugged air cooled
- -40°C to +85°C rugged conduction cooled
- Conformal coating on all models

## Shock and Vibration

- Tested to MIL-STD-810

## Altitude

- -1500 to 40 000 ft (standard)
- -1500 to 80 000 ft (extended temp.)

## Size, Weight & Power

- Weight: 5.3 oz (configuration dependent)
- Power, 4 optical channels active: (TBD)
- Power, 4 copper channels active: (TBD)

## Software

- Linux and Windows drivers

## ABOUT GALLEON

Galleon Embedded Computing is an innovative leader in development of high-performance, high-quality storage solutions and small rugged data recorder systems, servers and NAS devices.

Galleon's offerings span from commercial grade products for benign environments to ruggedized conduction-cooled products for deployed systems in severe environments.

## RELATED PRODUCTS

- Titan Quad GbE XMC
- Titan sFPDP XMC
- Galleon Extended Warranty and Support



**Galleon Embedded Computing**  
 Katy, TX, USA: +1-281-769-8211  
[www.galleonec.com](http://www.galleonec.com)  
[us\\_sales@galleonec.com](mailto:us_sales@galleonec.com)