XM 520/032

N, E - Series

Dual Port 10 Gigabit Ethernet XMC Adaptor



APPLICATIONS

The XM 520/032 is a high performance, dual port 10 Gigabit Ethernet adaptor suitable for use with XMC host boards including VME, VXS, VPX and CompactPCI®. The board supports SFP+ modules offering optical or copper front panel connections. The board is designed for applications that require very high-speed data throughput and lower-latency communications, such as high-speed image transfer, fast industrial control operations and telecommunications. For harsher environments an extended temperature version is available.

HIGHLIGHTS

- 2 x very high performance 10 Gigabit Ethernet interfaces
- Front I/O via SFP+ connectors supporting:
 - 10GBase-SR over LC-multimode fiber
 - 10GBase-CR over copper (twinax)
 - 10GBase-CU over copper (twinax)
- XMC (Switched Mezzanine Card) format:
 - single size CMC (Common Mezzanine Card)
 - up to x8 PCI Express® interface

- For use with VME, VXS, VPX, CompactPCI® and other **XMC Host Boards**
- Commercial or extended temperature versions:
 - 0°C to +55°C (N-Series)
 - -25°C to +70°C (E-Series)
- Software support for Linux®, Windows® Server 2008, Windows® 7, Windows® XP, and Windows® XP Embedded



Specification

Dual 10 Gigabit Ethernet Interfaces

- dual port 10 Gigabit Ethernet interfaces
- implemented using an Intel® 82599ES 10 Gigabit Ethernet controller:-
 - → supports jumbo frames
 - → 64-bit address support
 - → 128 transmit queues
 - → variable depth Transmit and Receive FIFO buffers
 - > programmable host memory receive queue buffer cache sizes
 - → Transmit and receive hardware for Descriptor Ring management
- physical interfaces (PHY) implemented by the Intel 82599ES Ethernet Controller:-
 - → front panel mounted SFP+ interface cages
 - → SFI 10Gb/s Tx/Rx serial data differential pair to each SFP+ interface
 - → supports IEEE 802.3ae, 10GBase-SR, over LC multimode fibre
 - → supports IEEE 802.ak, 10GBase-CR or 10GBase-CU, over copper (twinax)
- typical connector options for SFP+ modules:-
 - → Ethernet via LC Duplex optical connector to 50/120 m multi-mode fibre transceivers
 - → Ethernet via twin-axial copper transceivers

XMC Interface

- complies with PCI Express® Protocol Specification 2.0 including:-
 - → x8 PCI Express® interface
 - > trains down to x4, x2 or x1

BIOS EPROM

- dual serial 1 Mbit (128K x 8) serial flash devices
- switch selectable
- PXE BIOS Firmware
- in-circuit programmable

Software

support for Linux®, Windows® Server 2008, Windows® 7, Windows® XP Embedded, and Windows® XP

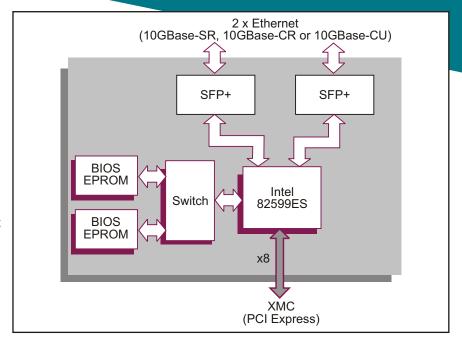
Electrical Specification

- +12V supply cannot be used
- +5V only @ 1.2A (maximum with dual 10 Gigabit operating);
- voltage +5%
- 3.3V and -12V not utilized

- Environmental Specificationcompatible with XMC host boards operating at:-
 - → 0°C to +55°C (N-Series)
 - → -25°C to +70°C (E-Series)
- -40°C to +85°C (storage)
- 5% to 95% Relative Humidity, non-condensing (operating or storage)

Mechanical Specification

- single size CMC (Common Mezzanine Card) 74mm x 149mm
- 10mm height stack module



ORDERING INFORMATION

Order Number **Product Description (Hardware)**

XM 520/032-10 Dual 10 Gigabit Ethernet XMC adaptor - excluding SFP+ transceiver modules

For extended temperature E-Series, please contact your local sales office