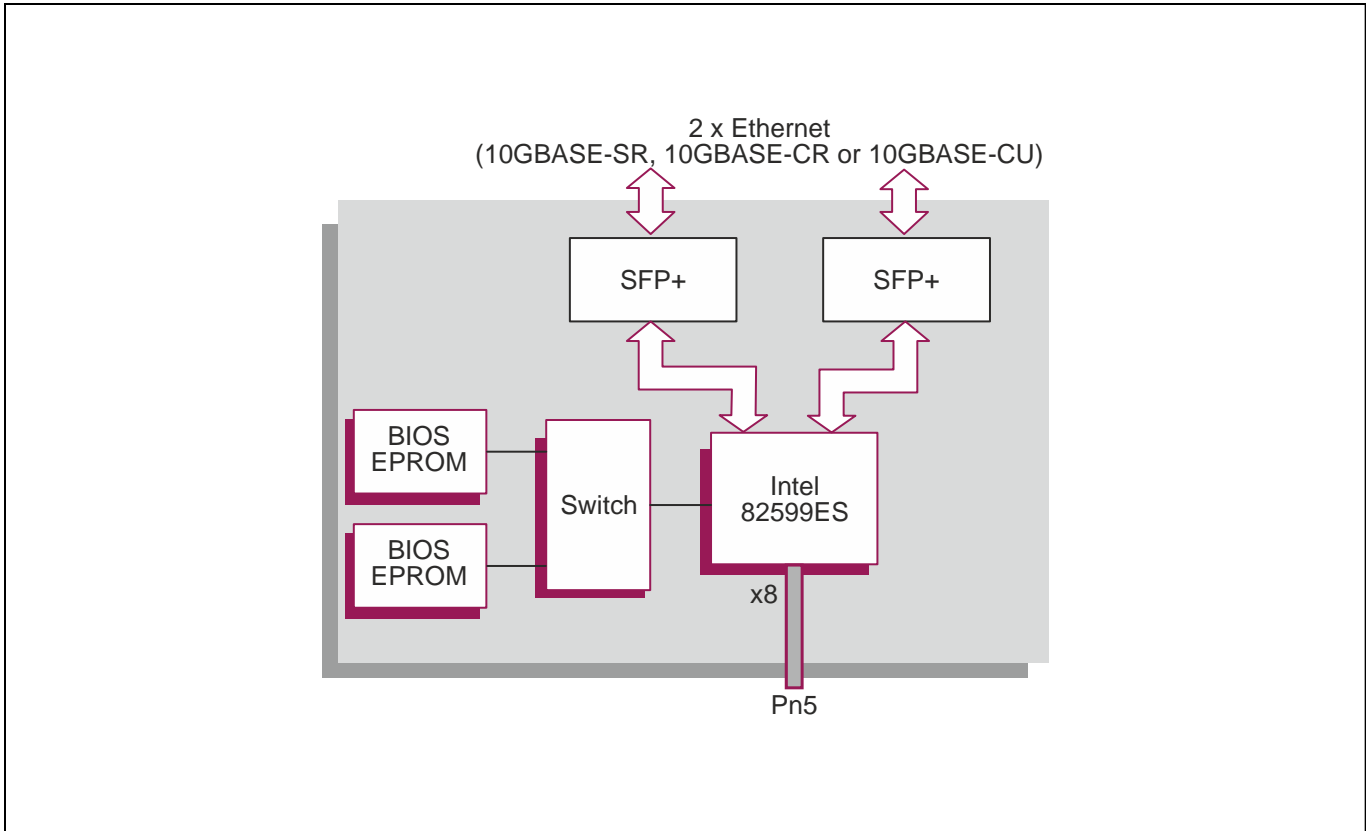# Dual Port 10 Gigabit Ethernet XMC Adaptor

Key Features

XM 520/032 is a high performance, dual port 10 Gigabit Ethernet adaptor with SFP+ modules offering optical or copper front panel connections. It is suitable for use on board with an XMC expansion slot and front I/O capability.

- 2 x 10 Gigabit Ethernet interfaces
- Suitable for use on boards with an XMC expansion slot
- For use in air-cooled environments
- Support for Linux® and Windows®

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 50/120mm 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® and Windows®

Electrical Specification

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

Environmental Specification

- compatible 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 (non-operating)
- 5% to 95% Relative Humidity, non-condensing

Mechanical Specification

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

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