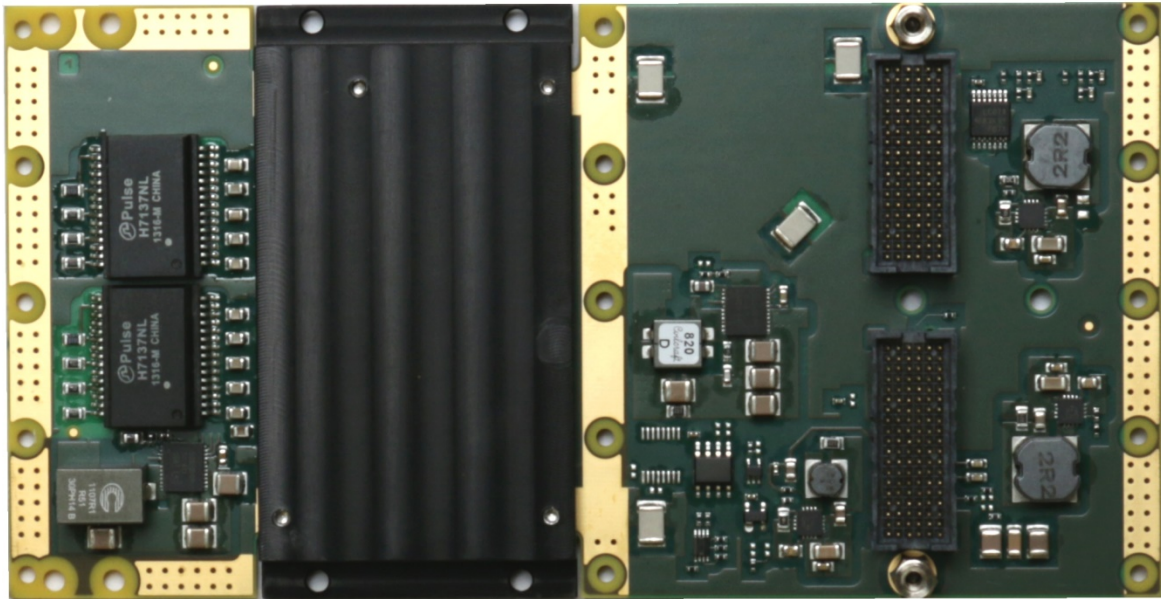# TXMC387 Conduction Cooled, 2x 100/1000/10000 Mbit/s Ethernet

Application Information

The TXMC387 is a Conduction Cooled Switched Mezzanine Card (CCXMC) compatible module providing a two channel Ethernet 100BASE-TX / 1000BASE-T / 10GBASE-T interface.

The XMC-Connector P15 provides access to the Intel™ X540 dual port 10GbE controller via an x8 PCIe link. Both Ethernet interfaces support 100, 1000 Mbit/s and 10 Gbit/s transmission rates at full duplex operation. The controller is equipped with a 16 Mbit serial flash memory which is accessed by hardware at power-up, which has a firmware area and which can be accessed by software.

The two Ethernet interfaces of the TXMC387 are capable of performing an auto-negotiation algorithm which allows the link-partners to determine the best link parameters. The Ethernet controller on the TXMC387 is user configurable via configuration and register accesses over the PCIe interface.

LEDs indicate the different network activities.

The TXMC387 routes both Ethernet ports which are galvanically isolated from the Ethernet controllers to the XMC back I/O P16 connector. On the TXMC387-10R the Ethernet ports are mapped in the X12d range specified in VITA46.9 standard. The TXMC387-20R maps both Ethernet ports in the X8d range specified in VITA46.9 standard.
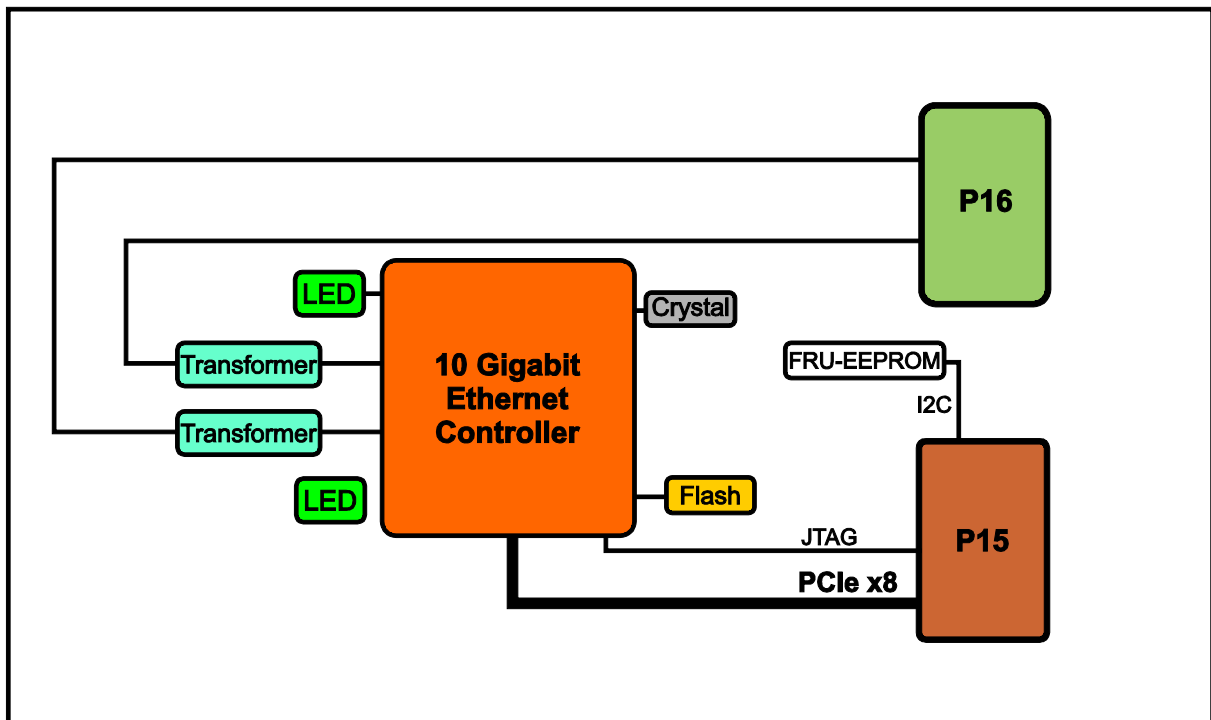
The module meets the requirements to operate in extended temperature range from -40°C to +85°C (Card Edge Temperature).

Software Support:

o Software support for Intel™ X540 at www.intel.com

o For operating systems not supported by Intel™, please contact TEWS.

Technical Information

- Form Factor: Standard single-width CCXMC module conforming to ANSI/VITA 42.0
  - Board size: 143.75 mm x 74 mm
- x8 PCI Express (Base Specification 2.1) compliant interface conforming to ANSI/VITA 42.3
- IPMI resource: FRU hardware definition information stored in on-board EEPROM
- Dual Port Intel™ X540 10 Gigabit Ethernet controller

- 100Base-TX / 1000Base-T / 10GBase-T
- Full-duplex operation
- 16 Mbit serial flash memory connected to Ethernet controller
- Operating temperature -40°C to +85°C (Card Edge)
- MTBF (MIL-HDBK217F/FN2 G_B 20°C) 592000 h

Order Information

RoHS Compliant

TXMC387-10R	ccXMC, 2 Channel 10/100/1000BaseT Ethernet Interface, Intel X540, P16 I/O (X12d)
TXMC387-20R	ccXMC, 2 Channel 10/100/1000BaseT Ethernet Interface, Intel X540, P16 I/O (X8d)

For the availability of non-RoHS compliant (leaded solder) products please contact TEWS.

Documentation

TXMC387-DOC	User Manual