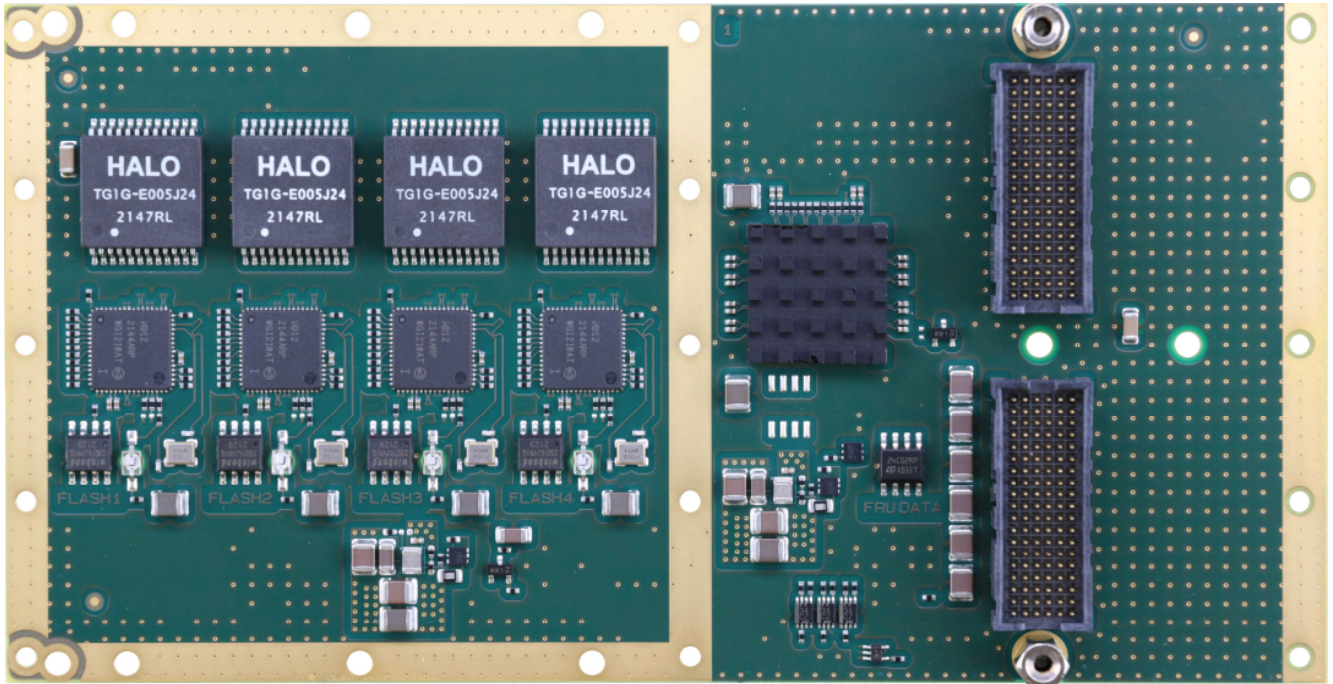# TXMC395 Conduction Cooled, Four Channel 10/100/1000 Mbit/s Ethernet

TXMC395-10R

Application Information

The TXMC395 is a Conduction Cooled Switched Mezzanine Card (CCXMC) compatible module providing a four channel Ethernet 10Base-T / 100Base-TX / 1000Base-T interface.

A PCIe Switch provides access to the Intel I210IT Gigabit Ethernet controllers. Each Ethernet interface supports 10, 100 and 1000 Mbit/s transmission rates and is equipped with a 16 Mbit Serial Flash to support PXE and iSCSI boot.

The four Ethernet interfaces of the TXMC395 are capable of performing an auto negotiation algorithm which allows both link-partners to determine the best link-parameters. The TXMC395 supports IEEE 1588/802.1AS Precision Time Protocol (PTP) and IEEE 802.1Qav Audio/Video Bridging (AVB) traffic shaping (with software extensions).

The TXMC395-10R routes four Ethernet ports to the Back I/O P16 connector. Two ports are mapped in the X12d range and two ports are mapped in the X8d range specified in VITA46.9 standard.

All ports are galvanically isolated from the Ethernet controllers and LEDs on the board indicate the different network activities.

The module meets the requirements to operate in extended temperature range from -40°C to +85°C.
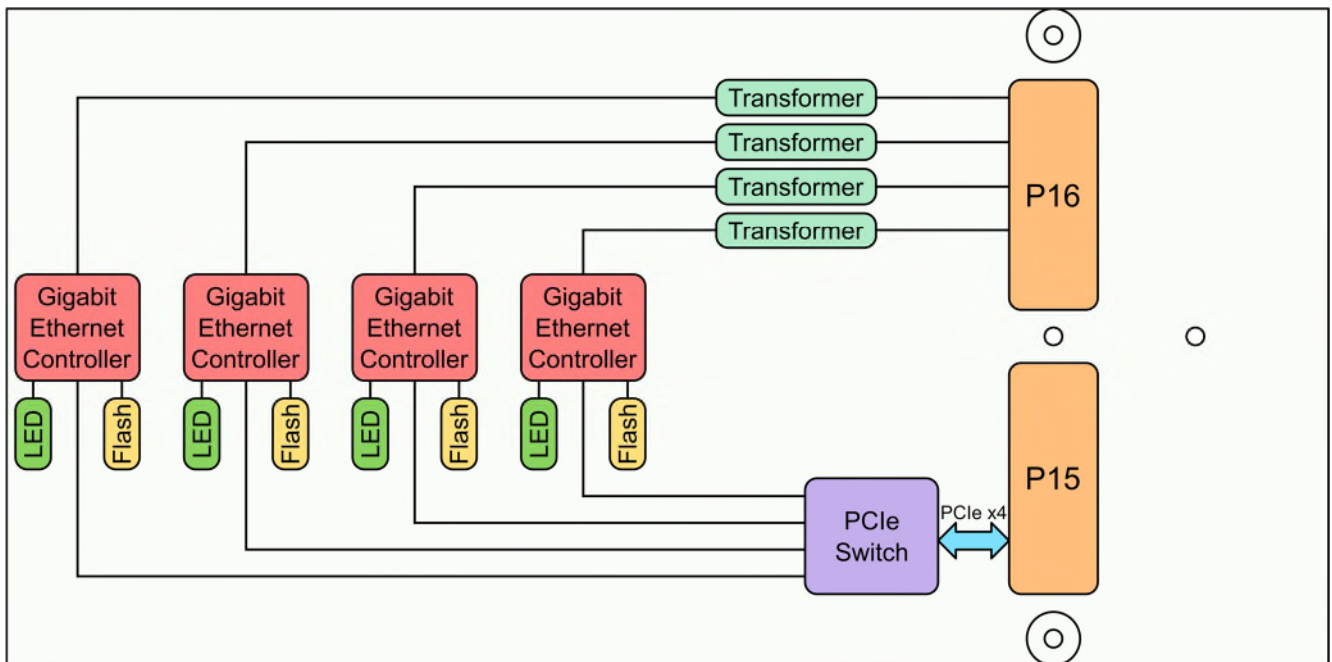
Software Support:

o Software support for Intel I210IT at www.intel.com

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

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Technical Information

- ❏ Form Factor: Standard single-width CCXMC module conforming to ANSI/VITA 42.0 and ANSI/VITA 20
  - ❏ Board size: 143.75 mm x 74 mm
- ❏ x4 PCI Express 2.1 compliant interface conforming to ANSI/VITA 42.3
- ❏ IPMI resource: FRU hardware definition information stored in on-board EEPROM
- ❏ Four Intel I210IT Gigabit Ethernet controllers
- ❏ Back I/O P16 connector
  - ❏ Two ports mapped in X12d range and two ports mapped in X8d range (VITA46.9)
- ❏ 1000Base-T
  100Base-TX
  10Base-T

- ❏ IEEE 1588/802.1AS Precision Time Protocol (PTP)
  - ❏ V1 and V2 PTP frame format
- ❏ IEEE 802.1Qav Audio/Video Bridging (AVB) traffic shaper (with software extensions)
- ❏ 16 Mbit serial flash for every channel storing configuration data and providing memory for Boot ROM
- ❏ Operating temperature -40°C to +85°C
- ❏ MTBF (MIL-HDBK217F/FN2 G_B 20°C) TXMC395-10R: 922000 h

Order Information

RoHS Compliant

TXMC395-10R   Conduction Cooled, Four Channel 10/100/1000 Mbit/s Ethernet, Intel I210IT, P16 Back I/O

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

Documentation
TXMC395-DOC   User Manual

Related Products
TPIM007   PIM for four Channel 10/100/1000 Mbit/s Ethernet XMCs, RJ45