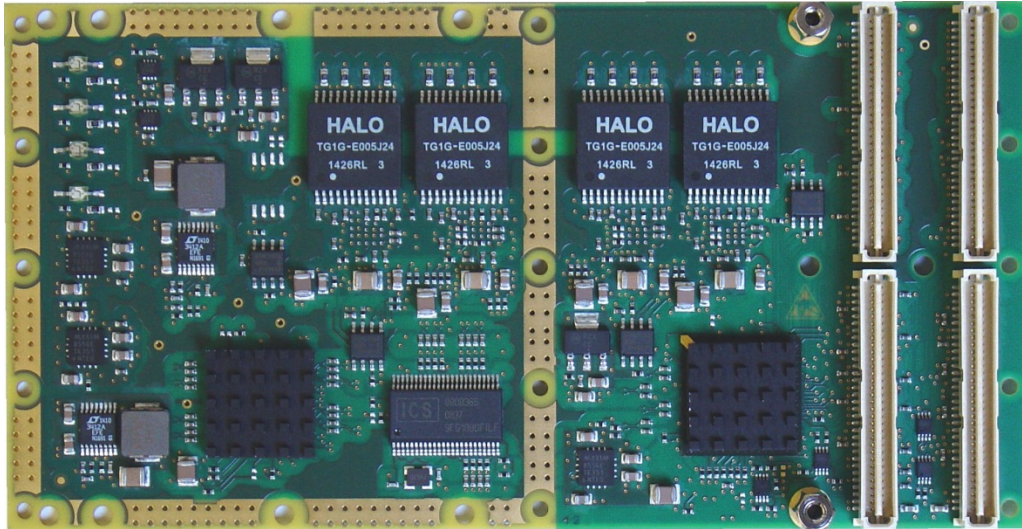# TPMC385 Conduction Cooled, 4x 10/100/1000 Mbit/s Ethernet

Application Information

The TPMC385 is a Conduction Cooled PCI Mezzanine Card (CCPMC) compatible module providing a four channel Ethernet 10BASE-T / 100BASE-TX / 1000BASE-T interface.

A transparent 64 bit, up to 133 MHz PCI-X/PCI to PCIe Bridge and a PCIe Switch provide access to the Intel™ 82574IT Gigabit Ethernet controllers. Each Ethernet interface supports 10, 100 and 1000Mbit/s transmission rates for full duplex operation, 10 and 100Mbit/s transmissions for half duplex operation, and is equipped with a 32 Kbit Serial EEPROM.

The four Ethernet interfaces of the TPMC385 are capable of performing an auto negotiation algorithm which allows both link-partners to find out the best link-parameters by themselves. The TPMC385 is widely user configurable via configuration and status register access over the PCI bus.

The TPMC385-10R routes all four 10/100/1000Mbit/s Ethernet ports to the PMC back I/O P14 connector.

All ports are galvanically isolated from the Ethernet controllers and LEDs on the board indicate the different network activities.
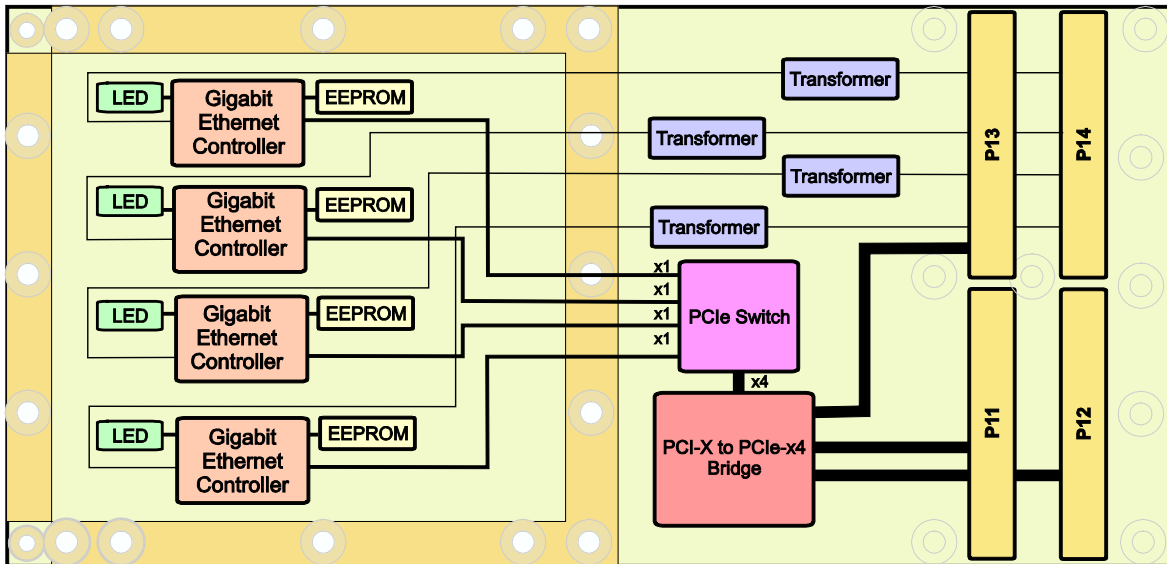
The module meets the requirements to operate in extended temperature range from -40° to +85°C.

Software Support:

○ Software support for Intel™ 82574IT at www.intel.com

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

Techncial Information

❑ Form Factor: Conduction cooled single-width 64 bit PMC module, no front panel
  ❑ Board size: 143.75 mm x 74 mm
❑ PCI 3.0 (up to 66 MHZ) and PCI-X 2.0a (up to 133 MHz) compliant interface
❑ 3.3V PCI signaling with 5V I/O tolerance
❑ 4 Intel™ 82574IT Gigabit Ethernet controllers
❑ 10Base-T / 100Base-TX / 1000Base-T

❑ Half or full-duplex operation
❑ For each interface: Configurable receive and transmit data FIFO, programmable in 1 KB increments
❑ Operating temperature -40°C to +85°C
❑ MTBF (MIL-HDBK217F/FN2 GB 20°C)
  TPMC385-10R: 502000 h

Order Information

RoHS Compliant
TPMC385-10R   ccPMC, 4 Channel 10/100/1000BaseT Ethernet Interface, Intel 82574IT, P14 I/O

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

Documentation
TPMC385-DOC   User Manual

Related Products
TPIM006   PIM I/O Module for Quad 10/100/1000 Ethernet PMC