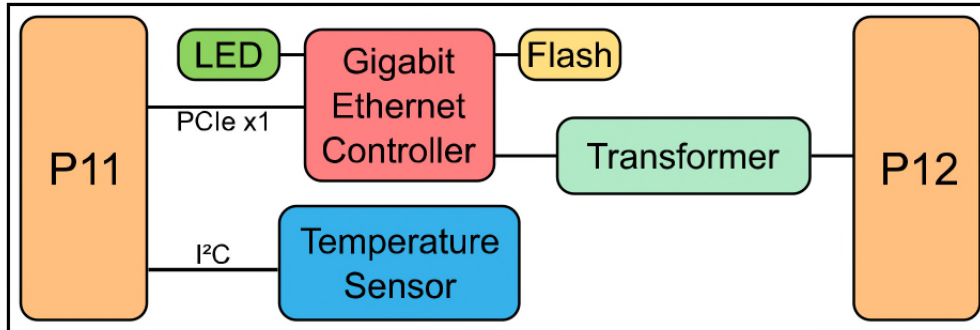# TQMC800 One Channel 1000BASE-T Ethernet

TQMC800 Block Diagram

Application Information

The TQMC800 is a VITA 93.0 compatible single-width QMC providing a one channel Ethernet 10Base-T / 100Base-TX / 1000Base-T interface.

The Intel I210IT Gigabit Ethernet Controller is accessible via PCIe. The 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 Ethernet interface of the TQMC800 is capable of performing an auto negotiation algorithm which allows both link-partners to determine the best link-parameters. The TQMC800 supports IEEE 1588/802.1AS Precision Time Protocol (PTP) and IEEE 802.1Qav Audio/Video Bridging (AVB) traffic shaping (with software extensions).

The Ethernet port of the TQMC800 is galvanically isolated from the Ethernet controller and a LED on the board indicates the network activity and link status.
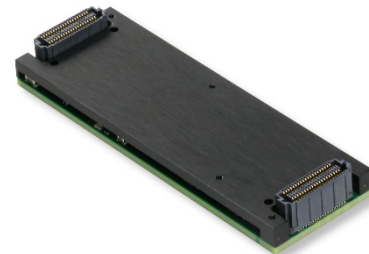
The TQMC800 has an I²C board temperature sensor to facilitate measurement of the board heat near the Ethernet Controller.

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

Software support for Intel I210IT is available at www.intel.com

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

The TQMC700 is available as air cooled and conduction cooled variant.

Conduction Cooled QMC

Technical Information

- Form Factor: Standard single QMC conforming to VITA 93.0
  - Board size: 78.25 mm x 26 mm
- PCI Express 2.1 compliant interface
- Intel I210IT Gigabit Ethernet controller
- 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 storing configuration data and providing memory for Boot ROM
- Operating temperature -40 °C to +85 °C

Order Information

RoHS Compliant
TQMC800-10R-A   One Channel 10/100/1000 Mbit/s Ethernet, Intel I210IT, air cooled
TQMC800-10R-H   One Channel 10/100/1000 Mbit/s Ethernet, Intel I210IT, conduction cooled

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

Related Products
TPCE210   2 Site QMC Carrier, PCIe x4, Gen2, low-profile, VHDCI-68 I/O