![TEWS TECHNOLOGIES logo]

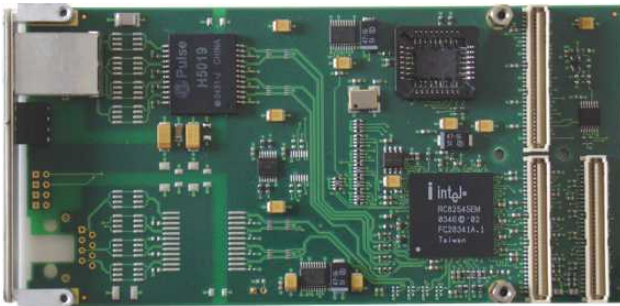# The Embedded I/O Company

TPMC883   Single Channel 10/100/1000 Mbit/s Ethernet

Application Information

The TPMC883 is a PCI Mezzanine Card (PMC) compatible module providing a single channel Gigabit Ethernet 10 / 100 / 1000BASE-TX interface.

For highest data rates, the TPMC883 has a 64 bit, 133/100/66 MHz PCI bus interface and is capable of full speed bus-master DMA operations utilizing maximum PCI bandwidth.

An Intel™ 82545EM Ethernet Controller (82545GM for RoHS compliant product) is used, which supports 10, 100 and 1000 Mbit/s transmission rates for half and full duplex operation. The TPMC883 is capable of performing an auto negotiation algorithm which allows both link-partners to find out the best link-parameters by themselves. The TPMC883 is widely user configurable via configuration and status register access over the PCI bus. Front panel mounted LEDs indicate various network activities.

The TPMC883 provides a 10/100/1000 Mbit/s network connection via a front panel RJ45 connector. The port is galvanically isolated from the Ethernet Controller.
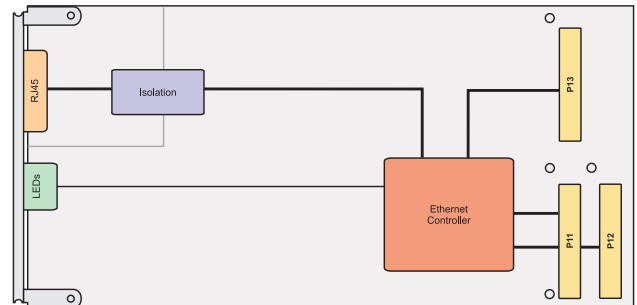
For First Time Users the Engineering Documentation TPMC883-ED is recommended. The Engineering Documentation includes TPMC883-DOC, schematics and data sheets.

Driver Support:

o Software Support Windows XP/2000/NT4.0 and several other operating systems is available from Intel at: http://downloadfinder.intel.com

o For other operating systems please contact TEWS.

Technical Information

❍ Standard single-width 64 bit PMC module conforming to IEEE P1386.1
❍ PCI 2.2 (64 bit / 66 MHZ) and PCI-X 1.0a (64 bit / 133 MHz) compliant interface
❍ 3.3V and 5V PCI Signaling Voltage
❍ Board size: 147 mm x 74 mm
❍ IEEE802.3 compliant Gigabit LAN interface
❍ Support of front panel status LEDs
❍ 10BASE-T/100BASE-TX 1000BASE-T interface available
❍ Half or full-duplex operation
❍ 64 Kbyte Transmit and Receive FIFOs
❍ Controller supports DMA cycles as a bus master
❍ Operating temperature range: 0°C to +70°C

Order Information

TPMC883-10R   Single 10BASE-T / 100BASE-TX / 1000BASE-TX Ethernet Interface RJ45 Front Panel I/O based on Intel 82545EM Controller

TPMC883-DOC   User Manual

TPMC883-ED   Engineering Documentation, includes TPMC883-DOC

12/2010