

PMC677TX

PMC with Quad 10/100/1000BaseT Ethernet Interfaces

Features

- PCI-X, PCI 64-bit/66MHz
- DMA engine
- Full 1000 Mbit point-to-point performance
- Jumbo frame capable
- Four 10/100/1000BaseT copper ports
- Pluggable copper transceivers
- Supports auto-negotiation
- RoHS 2002/95/EC compliant versions available
- Conformation coating available

Host offloading Features

- Packet filtering based on checksum errors
- SNMP and RMON statistic counters
- Hardware TCP checksum offloading
- Support for various address filtering modes:
 - 16 exact matches (unicast or multicast)
 - 4096-bit hash filter for multicast frames
 - Promiscuous unicast and promiscuous multicast transfer modes

The PMC677TX is a PMC designed to offer maximum 1000 Mbit Ethernet connectivity on four channels. Using 10/100/1000BaseT, the PMC677TX is capable of full duplex operation. The Ethernet/PCI interface includes a powerful DMA engine with 64 KBytes deep FIFO buffers. This assures continuous, full bandwidth operation with minimum PCI overhead.

Two PMC677TX boards can be directly cabled with a simple "cross-over". This configuration creates a full duplex 1000 Mbit dedicated data path (for each port) - delivering high bandwidth at very low cost. More complex, dedicated interconnects can be created using a hub or switch. Both point-to-point and switched hubs, in full duplex mode, remove many determinism concerns raised with traditional Ethernet solutions. This makes the PMC677TX an excellent candidate for high performance interconnects that require real time determinism.

Software Support

Software drivers are available for most popular operating systems including VxWorks®, Linux®, LynxOS, Windows® NT and Solaris. These drivers have been carefully designed and implemented to fit within the LAN protocol stack of the host operating system. All facilities available from the host operating system can be used across the PMC677TX.

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Specifications

Components

- PCI bridge: IBM21P100
- 2x Ethernet: Intel 82546

Ethernet Characteristics

- Ports: 4x 10/100/1000BaseT
- Port routing: Front, copper

PCI Bus Characteristics

- Signaling: 3 & 5 V
- Specifications: 2.2
- Speed: 33/66MHz
- Width: 32/64 bit

Form Factor

- Single slot PMC

MTBF

- MIL 217-F Nav Shel 25 Deg. C: 245000 Hours

Power Specifications

- Power: 8.7 watts
- @3.3V 0.8 amps
- @5V 1.06 amps

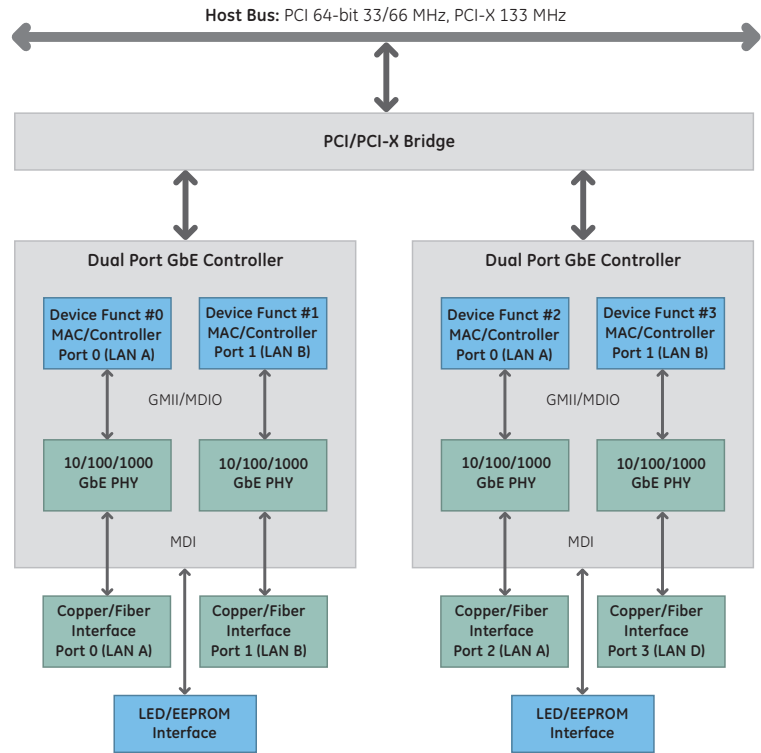
Environmental

- Temperature
 - Operating: 0° to +60 °C
 - Storage: -40° to +85 °C
- Relative Humidity
 - Operating: 5% to 95%, noncondensing
 - Storage: 5% to 95%, noncondensing

Operating System Support

- Windows
- Linux
- S/B VxWorks
- LynxOS
- Solaris

Block Diagram



Ordering Information

- PMC677TX** Quad 10/100/1000BaseT PMC, copper
 - PMC677RCTX** Quad 10/100/1000BaseT PMC, copper, RoHS compliant
- Suffix -CC to any part number to indicate conformal coating

Media Kit Options

- M-GBI-SEV-ARC** VxWorks on PPC
- M-GBI-SEV-ARP** VxWorks on x86
- M-GBI-SES-ARS** Solaris on SPARC

About GE Fanuc Intelligent Platforms

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Additional Resources

For more information, please visit the GE Fanuc Intelligent Platforms web site at:

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