



PMC677

Quad 1000BaseT Ethernet

The PMC677 is a PMC card designed to offer maximum 1000Mbit Full Duplex Ethernet connectivity on four channels. The PMC677 uses LC connectors with SX or (optionally LX) transceivers. The PMC677 Ethernet/PCI interface includes a powerful DMA engine with very deep FIFO buffers (64 Kbyte). This assures continuous, full bandwidth operation with minimum PCI overhead. The PMC677 has one PCI-to-PCI bridge onboard.

Product Features

- PCI-X, PCI 64 bit / 66 MHz
- DMA engine
- Full 1000 Mbit point-to-point performance
- Jumbo Frame capable
- Four 1000 Mbit Ethernet fiber ports
- Interchangeable, pluggable transceivers
- LC connector
- 1000BaseSX or 1000BaseLX

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

Software Support

The PMC677 is supported by native drivers for many common operating systems (e.g. Windows®, Linux®). GE Fanuc Embedded Systems has software drivers for additional operating systems (e.g. VxWorks®, LynxOS®, and Solaris®). These drivers have been carefully designed and implemented to fit within the LAN protocol stack of the host operating system. Thus all facilities available from the host OS can be utilized across the PMC676.



PMC677 Specifications

Components

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

Power Specifications

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

Ethernet Characteristics

- Ports: 4 x 1000 BaseSX (optional LX)
- Port routing: Front, fiber LC (SPF)

PCI Bus Characteristics

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

Form Factor

- Single slot PMC

Mean Time Between Failures (MTBF)

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

Temperature

- Operating: 0 to +60 °C
- Storage: -40 to +85 °C

Humidity

- Operating: 5% to 95% noncondensing
- Storage: 5% to 95% noncondensing

Conformal Coating

- Yes, additional charge

Operating System Support

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

Warranty

- 3 years

Ordering Options

PMC677LC	Quad Gigabit Ethernet, fiber, LC (SFP), SX transceiver
PMC677LC/LX	Quad Gigabit Ethernet, fiber, LC (SPF), LX transceiver

Linux (2.4.x, 2.6.x), Windows (XP, NT, W2K) supported by drivers from Intel (included in most distributions, available from the Intel web site). LynxOS 4.x supported by driver included in the distribution.

Media Kit Options

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

GE Fanuc Automation Information Centers

Americas:
Huntsville, AL 1 (800) 322-3616
1 (256) 880-0444

Asia Pacific:
Beijing, CN 86 (10) 6561-1561

Europe, Middle East and Africa:
Edinburgh, UK 44 (131) 561-3520
Paris, FR 33 (1) 4324-6007

Additional Resources

For detailed technical specifications and product ordering information, please visit the GE Fanuc Embedded Systems web site at:

www.gefanuc.com/embedded



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