PMC676RCTX

Single or Dual Copper Gigabit Ethernet PMC with Deep FIFO

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
- PCI-X, PCI 64/66 MHz
- RJ-45 connectors
- DMA engine
- Dual/single 10/100/1000BaseTX Ethernet
- Jumbo Frame capable
- RoHS compliant

The PMC676RCTX is a Gigabit Ethernet PMC that offers single or dual 10/100/1000BaseTX Ethernet interfaces. The card is capable of full duplex operation on each of its channels. The Ethernet/PCI/PCI-X interface includes a powerful DMA engine for each port with very deep FIFO buffers (64 Kbyte). This assures continuous, full bandwidth operation with minimum PCI overhead. In addition, card edge PCI systems can be accommodated using a GE PMC239 adapter for rapid proto-type and development.

Low Cost, Effective Interconnect

Two PMC676RCTX boards can be directly cabled with a simple "cross-over". This configuration creates a full duplex 1000 Mbit dedicated data path - 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 PMC676RCTX an excellent candidate for high performance interconnects that require real time determinism.

Software Support

The PMC676RCTX is supported by native drivers for many common operating systems (Windows®, Linux®). GE has software drivers for addtional operating systems (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 PMC676RCTX.

Specifications

Components
- Dual port Ethernet: 82546
- Single port Ethernet: 82545

Power Specifications
- Power (total): 6 watts
- @ 3.3 V: 0.9 amps
- @ 5 V: 0.6 amps

Ethernet Characteristics
- Ports: 2 × 10/100/1000BaseTX
- Port routing:
  Front: RJ-45

PCI Bus Characteristics
- Signaling: 3 V and 5 V
- Specification: 2.2
- Speed: 33/66 MHz
- Width: 32/64

Form Factor
- Single slot PMC

MTBF
- SMIL 217-F Nav Shel 25 Deg. C: 245,000 hours

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

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

Other Options
- Conformal coating: acrylic or polyurethane
- Solaris OBP boot option
- PXE (Preboot eXecution Environment) boot option

Operating System Support
- Windows®
- Linux®
- VxWorks®
- LynxOS®
- Solaris®

Ordering Information

PMC676RCTX	Dual port 10/100/1000BaseTX NIC; RoHS
PMC676RCTX1	Single port 10/100/1000BaseTX NIC; RoHS

-S may be applied to any model number to indicate Solaris OBP boot option
-CC may be applied to any model number to indicate polyurethane conformal coating
-CCA may be applied to any model number to indicate acrylic conformal coating
-PXE may be applied to any model number to indicate PXE boot option Media Kits

M-GBI-SEL-ARC	LynxOS (3.x) for PPC
M-GBI-SEL-ARP	LynxOS (3.x) for x86
M-GBI-SES-ARS	Solaris (versions 7, 8, 9) SPARC
M-GBI-SEV-ARC	VxWorks (versions 5.4, 5.5) PPC
M-GBI-SEV-ARP	VxWorks (versions 5.4, 5.5) x86
M-GBI-SEVB-ARC	VxWorks (version 5.3) PPC

Linux (2.4.x, 2.6.x), Windows (XP, NT, 2000) 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.

About GE Intelligent Platforms

GE Intelligent Platforms, a General Electric Company (NYSE: GE), is an experienced high-performance technology company and a global provider of hardware, software, services, and expertise in automation and embedded computing. We offer a unique foundation of agile, advanced and ultra-reliable technology that provides customers a sustainable advantage in the industries they serve, including energy, water, consumer packaged goods, government and defense, and telecommunications. GE Intelligent Platforms is a worldwide company headquartered in Charlottesville, VA and is part of GE Home and Business Solutions. For more information, visit www.ge-ip.com.

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