PMC Module

CL PMC/GB3

Dual Gigabit Ethernet Adaptor -Copper Interface



APPLICATIONS

The CL PMC/GB3 is a high performance, dual Gigabit copper interface Ethernet adaptor suitable for use with PMC Host Boards including VMEbus, CompactPCI® and Multibus II. The board is designed for applications that require high-speed data throughput and lower-latency communications, such as high-speed image transfer, fast industrial control operations and telecommunications.

HIGHLIGHTS

- **2** x high performance Gigabit Ethernet interfaces:
 - 10Base-T/100Base-Tx/1000Base-T
 - RJ45 connectors
 - 1000Mbps with CAT5/5e cabling
 - speed and status indicators
- PMC (PCI Mezzanine Card) format:
 - single size CMC (Common Mezzanine Card)
 - 33/66MHz 32/64-bit PCI interface
 - 3.3V and 5V signaling level compatible

- Software support for Linux[®], VxWorks[®], Windows NT[®], Windows[®] 2000, Windows[®] XP, Windows[®] XP Embedded and QNX[®]
- For use with VMEbus, CompactPCI[®] and Multibus II PMC Host Boards

CONCURRENT CONCURRENT

Concurrent Technologies Plc

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Specification

Gigabit Ethernet Interface

- 2 x 1000Base-T/100Base-Tx/10Base-T → accessible via 2 x RJ45 connectors on front panel
- implemented by Intel® 82546GB Gigabit Ethernet controller
 - supports IEEE 802.3ab for 1000Base-T over Category 5/5e UTP (Unshielded Twisted Pair) Cable
 - supports IEEE 802.3/802.3u for 10Base-T/100Base-Tx over Category 5 UTP cable
 - → supports Jumbo frames
- individual MAC and frame Controllers
 - supporting the following features: → 64 Kbyte transmit and receive FIFOs for each port
 - → transmit and receive IP, TCP and UDP checksum off-loading
 - → transmit TCP segmentation
 - → automatic retransmission
 - → automatic receive stripping and transmit padding (individually programmable) → automatic runt frame rejection
- physical interfaces (PHY) implemented by the
- Intel 82546GB internally supporting:-
- → 1000Base-T/100Base-Tx/10Base-T
- auto-negotiation → automatic polarity and MDI/MDI-X selection
- → full and half duplex operation
- PMC Interface
- complies with PCI Protocol Specification 2.2 including:-
 - → PCI clock rates at 33MHz and 66MHz
 - → 32-bit and 64-bit interface
 - → 3.3V and 5V signaling level compatible
- → bus mastering capability

BIOS EPROM

- 8-bit wide 512 Kbyte EPROM
- 32-pin PLCC JEDEC socket

Software

support for Linux[®], VxWorks[®], Windows NT[®], Windows[®] 2000, Windows[®] XP, Windows[®] XP Embedded and QNX®

Electrical Specification

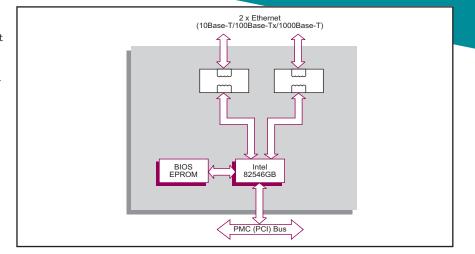
- +5V@1.0A (typical with dual 1000Base-T
- operating); ±5%
- 3.3V, +12V and -12V not utilized

Environmental Specification

- 0°C to +55°C (operating)
- 10% to 90% Relative Humidity,
- non-condensing (operating)
- -40°C to +70°C (storage)
- 10% to 90% Relative Humidity, non-condensing (storage)

Mechanical Specification

- single size CMC (Common Mezzanine Card) 74mm x 149mm
- 10mm height stack module



ORDERING INFORMATION

Order Number Product Description (Hardware)

CL PMC/GB3-00 Dual Gigabit Ethernet PMC Adaptor - Copper Interface