EM960

PCI

Ethernet

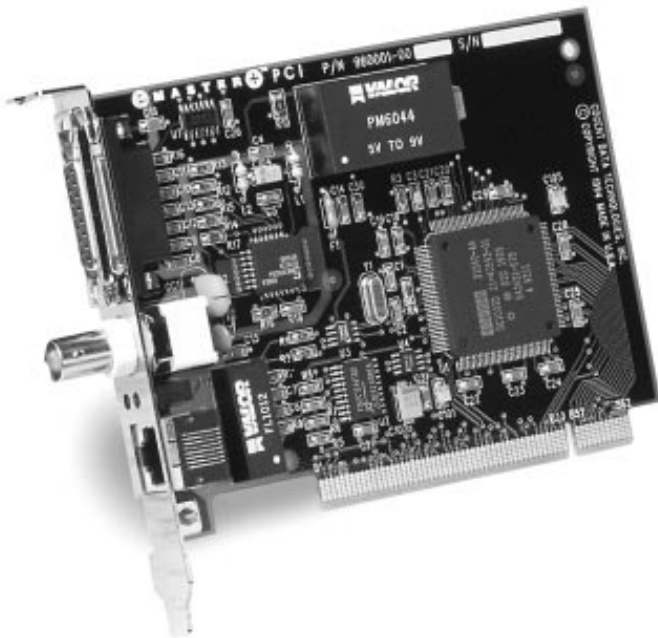## LAN

Adapter

PCI
Ethernet

Features

- 132 MBytes/sec. (33 MHz) burst data rate across the PCI bus

- Small form factor design fits in 5 volt bus mastering PCI slots

- Predictive Pipelining™ for greater throughput with lower CPU utilization

- Self-configuring design for "plug and go" operation

- FDE design supports cumulative 20 Mbits/sec. system throughput for switched Ethernet networks

- Combo and twisted pair versions available for maximum flexibility

- Drivers for popular networks including NetWare®, LAN Manager™, NEXTSTEP™, UNIX, Windows NT™

- Limited lifetime warranty

COGENT
DATA TECHNOLOGIES, INC.

EM960

PCI
Ethernet
LAN
Adapter

EM960 PCI is a 32-bit, bus mastering adapter designed for PCI Local Bus servers and workstations which provides fast and trouble-free connections to Ethernet networks. With its processor-independence, very large scale integration, and high 132 MBytes/sec. data throughput rate, EM960 PCI brings PCI performance to the network at a low cost.

Performance through advanced design

EM960 PCI is ideal for resource-intensive graphics, multimedia, and Windows applications, and mission-critical NEXTSTEP applications which need high throughput and low CPU utilization to power large amounts of data across the network. Cogent's Predictive Pipelining technology minimizes bottlenecks system-wide and prevents transfers from loading the host CPU. With two 256 byte independent transmit and receive FIFOs (First In, First Out) on-board, and powerful DMA capability, EM960 PCI can tolerate increased bus latencies for decreased sensitivity to load.

For even greater throughput, EM960 PCI includes Full Duplex Ethernet (FDE) capability which can be easily enabled via software to double the cumulative system throughput rate in switched Ethernet networks. The EM960 PCI adapter has completely independent transmit and receive circuitry for true 20 Mbits/sec. operation at Minimum Interframe Spacing. Full Duplex Ethernet servers using the EM960 PCI adapter can handle receive and transmit requests simultaneously. As a result, workstations can take advantage of faster service.

"Plug and go" configuration provides flexibility

The EM960 PCI is self-configuring; its base configuration is automatically set in BIOS for maximum convenience. The EM960 PCI configuration can also be manually customized in BIOS to suit any environment.

EM960 PCI adds flexibility to the system by allowing PCI configuration registers to be mapped to either I/O space or memory. By providing flexibility in how the registers are accessed, EM960 PCI makes it easy to avoid conflicts with existing resources. EM960 PCI also supports DWORD, WORD, and BYTE access to configuration space.

Product Specifications

Systems Supported
PCI Local Bus IBM PCs or compatible, Intel-, DEC Alpha-, MIPS-based computers

Bus Interface
PCI, 32-bit bus master

Ethernet controller
DECchip® 21040-AA LAN coprocessor chip

Hardware Interrupts
PCI interrupt A
supports shared interrupts

Base IO or Memory Address
Assigned by BIOS

Reliability
Calculated MTBF>100,000 hours

Power Requirements
+5 volts @ 0.5 Amp. max.
+5 volts @ 1 Amp. max. (EM960 C only)
+12 volts @ 0.5 Amp. max. (for MAU only)

Environmental Operating Range
Temperature: 0°C to 50°C
Relative Humidity: 5% to 85% non-condensing
Altitude: 3000m maximum

Interface Connections
BNC, AUI, RJ-45 female

Dimensions
5.075" x 3.9" (conforms to PCI Short Card specifications)

Standards Compliance
FCC Class B
CE Class B
IEEE 802.3 10BASE-2
IEEE 802.3 10BASE-5
IEEE802.3 10BASE-T

Drivers Available
3.5" diskette - Novell NetWare, DOS ODI Client, NDIS 2.0, NEXTSTEP, Windows NT, Windows for Workgroups, Windows 95, SCO Unix, Sun Solaris

Diagnostic LEDs
Link Integrity, Network Activity

Warranty
All eMASTER+ series adapters are protected by a limited lifetime warranty

Ordering Information
Order Number	Connectors
EM960 C	combo (BNC, UTP, AUI)
EM960 TP	UTP

Made in U.S.A.

Your local Cogent dealer is:

COGENT
D A T A   T E C H N O L O G I E S ,   I N C.