

## Fast Ethernet CardBus PC Card



**Migrate to 100-Mbps networking with  
this autosensing adapter card.**

## FEATURES

- Dual-speed 10-Mbps (10BASE-T) and 100-Mbps (100BASE-TX) operation.
- Automatically senses and switches between 10- and 100-Mbps operation.
- Maximum throughput of 200 Mbps.
- Supports all CardBus PC Card Type II compliant PCs.
- Easy to install and configure.
- Includes a built-in 56K modem.
- Supports all major operating systems.
- Minimal power consumption.

## OVERVIEW

This dual-speed adapter makes it easy to connect your CardBus-equipped portable PC to both 10-Mbps (10BASE-T) and 100-Mbps (100BASE-TX) Fast Ethernet networks.

Super-flexible, a single Fast Ethernet PC Card investment enables you enjoy high throughput in both legacy Ethernet and Fast Ethernet environments. It's an ideal solution if you need to alternate between 10- and 100-Mbps networks.

The card automatically senses and switches between 10- and 100-Mbps operation and includes a single RJ-45 connector that supports both standards. Dynamic pipeline technology ensures superior Ethernet throughput performance.

The card also autonegotiates between full duplex and simplex operation. Because the Fast Ethernet CardBus PC Card offers full duplex capabilities with independent Transmit and Receive circuits, you can send and receive data simultaneously at both 10 and 100 Mbps to achieve a maximum throughput to 200 Mbps.

The card has an advanced 16550 UART that provides data buffering and reliable performance especially when it's used in multitasking Windows® or OS/2® environments.

Platform independent, the Fast Ethernet CardBus PC Card can be used in all CardBus PC Card Type II complaint PCs. The adapter cards support today's major network operating systems (NOS) and come with a wide range of thoroughly tested NOS drivers.

Plus, it's easy to install and configure. Full support from all major Card and Socket Services software vendors ensures PCMCIA compatibility and Plug-and-Play installation. You also get a full set of direct enablers to support all major socket controllers and reduce the number of memory requirements.

What's more, the card offers minimal power consumption, operating at 3.3 volts, and features advanced power-saving modes that extend battery life. In addition, the card supports advanced OnNow power-management requirements for network and communication device class, including all wake-up events, as required by the Microsoft PC 98 specifications. These include detection of network link state change; reception of a network wake-up frame; and reception of a Magic Packet™.

And not only is the adapter card fully compliant with PCI Bus Power Management interface specifications, but it's Advanced Configuration and Power Interface (ACPI) compliant, too.

The card features modem speeds of up to 56 kbps\* over standard phone lines. Just plug it into any Type II CardBus PC Card slot to connect to a 10- or 100-Mbps Ethernet network and access e-mail and the Internet, download data, or fax documents. To achieve higher data/fax speeds, the Fast Ethernet CardBus PC Card uses K56flex™ and V.90 modem technologies that don't depend on traditional digital-to-analog conversions to transmit downstream to an ISP. (For this to work, the ISP must have a direct digital connection and the modems at both ends must be compatible.) With these technologies, data can be downloaded from the server at speeds of up to 56 kbps, while data sent upstream by the user travels at the standard V.34 maximum rate of 33.6 kbps. V.42 bis and MNP® 5 data compression enhance data throughput on the modem further.

The Fast Ethernet CardBus PC Card also has a video-ready VRM V.80 interface that supports videoconferencing over traditional POTS lines.

The data/faxmodem installs as a COM port and runs an extended AT command set, so it works with all major faxmodem software—there's no need for you to change the communications software you currently use. Your phone numbers and related profiles store in the card's nonvolatile RAM.

In addition to various NOS drivers, the Fast Ethernet CardBus PC Card comes with an advanced wizard utility, which makes installation easy and straightforward. And when future ITU 56K standards become available, just upgrade the card through flash ROM software.

*\*NOTE: 56 kbps refers to download speed only and requires compatible modems at both ends. Other conditions, including phone line quality and country-specific regulations, may limit modem speed. For instance, FCC regulations limit download speeds to 53 kbps.*



## TECH SPECS

**Approvals** — FCC Part 15, Subpart B class B; FCC Part 68; CE (EN55022 Class B, EN50082-1); various European PTTs

**Communication Software** — Runs all popular DOS and Windows software (including remote LAN access)

**Data Command Set** — Fully AT® command compatible

**Data Compression** — CCITT V.42bis (up to 4:1 compression ratio); MNP® 5 (up to 2:1 compression ratio)

**Data Rates** — CCITT V.90: 56,000 bps; K56flex: 56,000 bps;  
 CCITT V.34: 33,600 bps;  
 CCITT V.32 terbo: 19,200 bps;  
 CCITT V.32bis: 14,400 bps;  
 CCITT V.22bis: 2400 bps;  
 CCITT V.22A/B: 1200/600 bps;  
 CCITT V.23: 1200/600 bps;  
 CCITT V.21: 1300 bps;  
 Bell 212A: 1200 bps;  
 Bell 103J: 0–300 bps

**Data Transfer Rates** — 10 Mbps; 100 Mbps

**Diagnostics** — Power-on self-test (POST)

**Distance (Maximum)** — Between nodes: 100 m (328 ft.) on a 10BASE-T interface

**Error Correction** — CCITT V.42 LAPM; MNP 2–4

**Ethernet Protocols** — IEEE 802.3U (Fast Ethernet, 10BASE-TX); IEEE 802.3 (Ethernet, 10BASE-T)

**Fax Command Set** — CCITT Group 3; Class 1 (EIA-578); Class 2 (EIA-592)

**Fax Rates** — CCITT V.17: 14,400 bps;  
 CCITT V.29: 9600 bps;  
 CCITT V.27ter: 4800 bps;  
 CCITT V.21 channel 2: 300 bps

**PC Card Interface Standard** — Type II 32-bit CardBus PC Card

**PC Card Software Support** — Card and Socket Services; direct enablers

**Software and Operating System Supported** —  
 NDIS 5 for Windows 98/Me, Windows 2000;  
 NDIS 4 for Windows 95B/OSR2, Windows NT® 4;  
 NDIS 3 for Windows 95A;  
 NDIS 2.0.1 driver for Microsoft® LAN Manager, Windows for Workgroups, Banyan® Vines™, Artisoft® LANtastic®, OS/2, and others;  
 ODI™ workstation drivers for Novell® NetWare®;  
 Packet driver for TCP/IP;  
 Multifunction support driver (FEMDRV)

**UART** — 16550

**Video Ready Modem (VRM) Interface** — CCITT V.80

**Connectors** — Ethernet: (1) unshielded RJ-45;  
 Wall jack connection: (1) RJ-11 F

**Indicators** — Act LED: Green for network activity;  
 Link LED: Yellow for network link

**Operating Temperature Tolerance** — 32 to 122°F (0 to 50°C)

**Humidity Tolerance** — Up to 90%, noncondensing

**Power** — 3.3 V (powered via the PC Card connector);  
 Consumption:  
 100BASE-TX, modem active: 450 mA;  
 100BASE-TX, modem sleep: 290 mA;  
 10BASE-T, modem active: 400 mA;  
 10BASE-T, modem sleep: 250 mA

**Size** — 0.2"H x 2.1"W x 3.4"D (0.5 x 5.3 x 8.6 cm)

**Weight** — 0.2 lb. (0.1 kg)

## CARDBUS ADVANTAGES

CardBus is a high-performance interface that offers distinct advantages over the older, conventional 16-bit PC Card, including improved CPU efficiency and bus mastering that enables speedy data transfers between the portable PC and the network without burdening the PC's processor. The bus-mastering architecture of the CardBus supports 32-bit data and address burst and operates at speeds of up to 33 MHz—which is 20 times faster than a 16-bit PC Card! The result: A CardBus-equipped laptop PC enables you to experience the same performance that desktop users have been enjoying for years through their PCI bus.

## WHAT'S INCLUDED

- ◆ Fast Ethernet CardBus PC Card
- ◆ (2) 6" (15.2-cm) pigtails
- ◆ Driver diskette
- ◆ Users' manual

Item	Code
Fast Ethernet CardBus PC Card	LH1001A
<b>For your network connections, you may also need...</b>	
CAT5 Solid-Conductor Cable, 4-Pair, Straight-Pinned, PVC	EYN737MS