

**AOpen 10/100Mbps
PCI Fast Ethernet Card
AON-325**

User's Guide

OpenLink™ To Communications

Full Package Content

The adapter package should contain the following items:

- One PCI 10/100 Ethernet adapter
- Diskette of Driver and User's guide

Please inform your dealer immediately should there be any incorrect, missing or damaged parts.

Introduction

The 10/100 Based-Tx Fast Ethernet Adapter card is a 32-bit 10/100Mbps Ethernet network interface card for PCI local bus-compliant PCs. It supports the PCI bus mastering architecture which allows data to be transferred very fast with low CPU utilization and auto-negotiation feature which makes it possible to combine one common type of Ethernet cabling-an RJ-45 connector for twisted-pair cabling that can be used for both 10Mbps and 100Mbps connection. Extensive driver support for commonly used network operation systems is also provided.

About Fast Ethernet

Fast Ethernet is a network technology specified by IEEE Standard 802.3u. It extends the traditional 10Mbps Ethernet technology to achieve 100Mbps transmission and reception, while retaining the same CSMA/CD Ethernet protocol. Thus while Fast Ethernet provides a tenfold increase in network capacity, it is wholly compatible with traditional 10Mbps Ethernet network facilities.

About Auto-negotiation

Auto-negotiation is an IEEE 802.3 procedure of negotiating the highest data flow capability between the device (in this case, our Adapter) and their links partner (some other device). The data flow information, to be negotiated, consists of the data speed (10Mbps or 100Mbps) and data transfer (half-duplex or full-duplex communication). The physical process of auto-negotiation requires only a few milliseconds to choose the fastest communications capability between the two devices.

Remote LAN Wakeup

Remote LAN Wakeup capability is a key feature of a centrally managed PC environment. This technology allows networked PCs to be powered up and managed from a central location, at any time of the day or night. To employ Remote LAN Wakeup, three elements are required:

- Desktop management software that can send a “wake-up” packet to a PC.

- A Wake-On-LAN enabled PC motherboard that can supply low-level auxiliary power to a network card when the PC is powered off.
- A Wake-On-LAN network card that can recognize a wake-up packet and signal the PC to power up.

A Wake-On-LAN enabled PC is never completely powered off, it maintains a low-level auxiliary power supply to the motherboard. Even if the PC is powered off network card is always active and monitoring the network. When a wake-up packet is detected, the card signals the motherboard to power up the PC. With the PC powered on, maintenance and other support tasks can be performed.

Product Features

Designed for versatility and performance, the 32-bit PCI bus 10/100Mbps Fast Ethernet Adapter provides the following features:

- Operates in a PCI Bus Master slot of a Pentium/ Pentium-Pro/ Pentium-II computer, independent of CPU speed.
- PCI Bus Master memory access, for high throughput and low CPU demand.
- Compliant to PCI 2.1, 2.2 standards.
- Plug and Play installation.
- 100Mbps Fast Ethernet or 10Mbps Ethernet data transfer, selected via auto-negotiation.
- Full-duplex or half-duplex operation, selected by auto-negotiation.
- Built-in FIFO buffers reduce overhead of memory transfers.
- Drivers for all leading Network Operating Systems.
- Two LED indicators: Link, Activity.
 - LINK Indicator
A steady *green* LED indicates good linkage between the 32-bit PCI bus 10/100Mbps Fast Ethernet Adapter and its supporting hub.
 - ACTIVITY Indicator
A flashing *green* LED indicates that the adapter is sending or receiving data.

Software Driver Support

- Diagnostic Program
- ODI
Novell Client Dos, Novell Client 32 for Dos,
Netware Sever 3.x, 4.x, 5.x
- NDIS 2.x, 3.x, 4.x, 5.x
Windows 2000, Windows 98, Windows 95,
Windows NT, MS LAN, LANtastic, Windows XP
- Packet Driver : FTP PC/TCP
- UNIX Driver : SCO UNIX
- Linux

Installation

Installation of a 10/100Mbps PCI bus Fast Ethernet Card requires Hardware installation first, then BIOS and Software installation.

Hardware Installation

1. Turn OFF the computer, unplug its power cord and open the computer case.
2. Insert the contact edge of the 10/100Mbps PCI bus Fast Ethernet Card into the connector of any available PCI Bus Master expansion slot. Press the card firmly into the connector and ascertain that the card contacts are fully seated in the connector.
3. Install the bracket screw, which secures the card to the cincture chassis.
4. Replace the computer's case and connect the network cable to newly installed network card. Reconnect the computer's power cord and plug it into the power outlet.

Driver Installation

Before you connect the 10/100Mbps PCI bus Card to the network, you have to install the network driver first. The driver for each networking operating system is under a separate directory. A HELP.EXE file under root directory lists the information and detailed installation procedure of all the available drivers.

Boot ROM Installation

The optional Boot ROM device allows you to connect a diskless workstation to the network. Perform the following steps to install your Boot ROM device:

Note: Install the optional remote boot ROM before installing the card.

Note: Before handling the remote boot ROM chip, discharge any static electricity on your body by touching a grounding surface such as the chassis of the PC.

1. Align the notch and pins of the ROM chip with notch and pinholes on the socket. Insert the Boot ROM into the socket on the adapter until it is firmly seated.
2. Execute the SETUP.EXE file to enable the Boot ROM function by selecting the appropriate Boot ROM address from the setup menu.

3. Refer to the installation procedure provided by Networking Operating System, Here lists the reference subjects under two commonly used Networking Operating Systems.

Microsoft LAN Manager:

Starting remote booting service

Novell Netware: DOSGEN

Troubleshooting

If you experience any problems with the adapter, first verify that the appropriate driver is loaded, that the proper grade of cable is employed for the network connection, and that the supporting hub is functioning properly.

1. Ascertain that the adapter card is fully and firmly seated in the slot connector.
2. Check the length and rating of connecting cables.
3. Ascertain that the adapter's PCI slot is not deactivated at the BIOS level. The CMOS Setup utility in PCI computers ordinarily provides the option to activate or deactivate PCI slots.
4. Replace the adapter in question with a verified adapter and run SETUP.EXE diagnostic tests on the software diskette at root directory.
5. Install the questioned adapter in another PCI computer and run the tests again.

Remove all other PCI adapters from the computer and run the tests again. If the verification/diagnostic run is not normal, then there is probably an interrupt number conflict which will have to be resolved manually by a CMOS Setup utility run after you have reinstalled all of the expansion cards.

Specifications

Standards:	IEEE 802.3 10BASE-T IEEE802.3u 100BASE-TX PCI Local Bus specification Rev.2.1, Rev. 2.2
Host interface:	PCI 2.1, 2.2 Bus (Bus Master)
Data Bus Width:	32-bit PCI bus mastering Jumperless Hardware Auto-negotiation Function
Wake-On-LAN for PCI 2.2 :	Magic Packet LinkChg Microsoft wake-up frame
LED indicators:	Link, Activity
Media Interface:	RJ-45
Emissions:	FCC Class B CE Certification, Class B VCCI Class B
Dimensions:	120mm x 36mm
Storage Temp.:	-10°C ~ 70°C
OperatingTemp.:	0°C ~ 50°C
Storage Humidity:	10%~ 90% non-condensing
Operating Humidity:	10%~ 70% non-condensing
Power Consumption:	0.8 Watts (maximum)

FCC Compliance Statement

This equipment has been tested and found to comply with the regulations for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this user's guide, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

CE Mark Warning

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

VCCI Class B Compliance (Japan)

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