

## Introduction

This User's Guide is used for the 100/10M PCI Adapter with wake on LAN function which supports M/B with PCI 2.2 spec. It is a 32-bit adapter for using in personal computers with a Peripheral Component Interconnect (PCI) computer bus to eliminate I/O bottle necks and to reduce CPU loading using bus master architecture. Wake on LAN (for PCI 2.2) function supports you to turn on PCs from a sleep state over the network remotely during off-hours.

It is a **Full-Duplex** adapter connected to an Ethernet network with a single connection over unshielded twisted pair (UTP) cable and can auto-sense either 10 Mbps or 100 Mbps by **full auto-detection**.

## Key Features

- Single-chip controller complies to PCI local bus specification revision 2.2
- Conform with IEEE 802.3 10BASE-T and IEEE 802.3u 100BASE-TX standards
- Support Wake on LAN function (Work with PCI 2.2 motherboard)
- Support ACPI, PCI power management (Work with PCI 2.2 motherboard)
- High performance bus master architecture for low CPU and bus utilization
- Single RJ-45 connector for using at either 10 or 100Mbps speed
- On-board socket for an optional remote boot ROM
- Provide diagnostic LED to monitor linking status
- Provide high performance network drivers such as ODI, NDIS, NDIS3, NDIS4, NDIS5, UNIX, etc.

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## Package Contents

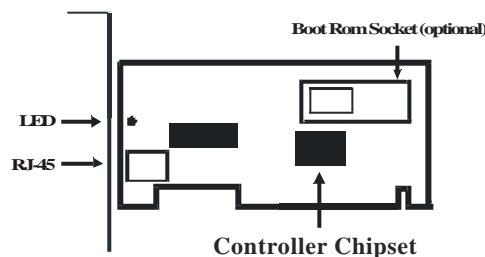
- One Ethernet PCI adapter
- Driver Diskette
- One User's Guide

## The Card Layout

Each card is clearly displayed below with major components.

100/10M PCI Adapter/Wake on LAN PCI Adapter

Support PCI 2.2 For Wake on LAN Function  
(With Cable)

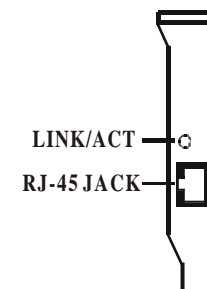


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## LED Indicator

The LED indicators on the rear bracket of each card for tracking network linking status. When working on PCI 2.2 for **Wake On LAN**

**LINK/ACT** The LED ON indicates green when the card is connected to 100/10M network. The LED indicators flash when there is transmission of data occurring at the card.



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## Installation Procedures

Discharge any static electricity from your body before handling the sensitive board of the card. Handle the card by its edges, and be careful not to twist or flex it. Follow the steps

- Unpack the card package.

**apply the power when installing. Turn off any devices that**

- Remove your computer's unit cover. Refer to your computer system manual for specific instructions.
- Locate a free PCI local bus master slot.
- Remove the slot cover and screw.
- Insert the card into the chosen and correct slot carefully.
- Put the computer's unit cover back.

## Making Network Connection

### Twisted Pair Cable Connection

Twisted pair cable is used in conjunction with the RJ-45 modular plug on the rear bracket. To make the connection, per-

- Make sure the power to your computer is off to avoid damage to both the computer and the network interface card.

## Life Time Warranty

The manufacturer warrants to the original consumer / purchaser free from defects in materials or workmanship for no limited time from the original factory shipment date.

### KEEP THIS STUB FOR YOUR RECORDS

DISTRIBUTOR

TO:

ATTN:

Place  
Stamp  
Here

### WARRANTY REGISTRATION CARD

Please complete this form and return it within  
10 days of purchase to validate the warranty

Name/Title: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Tel. No.: \_\_\_\_\_ Signature: \_\_\_\_\_

Purchase Model: \_\_\_\_\_ Serial No.: \_\_\_\_\_

Purchase from: \_\_\_\_\_

Address: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

## Federal Communications Commission Frequency Interference Statement

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions in this manual, may cause interference to radio communications. This equipment has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of the FCC rules, which are designed to provide reasonable protection against radio interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user, at his own expense, will be required to take whatever measures are necessary to correct the interference.

## CE Declaration of conformity

This equipment complies with the requirements relating to electromagnetic compatibility, EN 55022 class A for ITE and EN 50082-1. This meets the essential protection requirements of the European Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

## Trademarks

All company, brand and product names are trademarks or registered trademarks of their respective companies.



- Using the RJ-45 plug and twisted-pair cable, connect the network interface card to a 10BASE-T or 100BASE-TX hub (concentrator). Note that the maximum cable length between a hub and any computer is 100 meters (328 feet).

Max. Nodes per Concentrator : Depends on Concentrator  
Max. Cable Length to Concentrator : 100 meters ( 328 Feet )

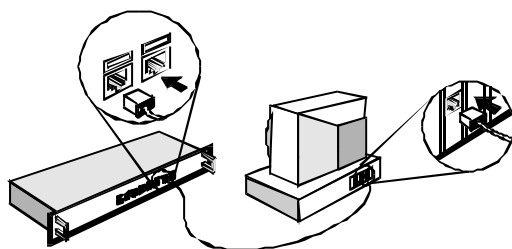


Figure A : Twisted-Pair Cable Connection

*Note: Make sure you have the correct wiring. To reliably operate your network at 100 Mbps, you must use unshielded twisted pair (UTP) Category 5 or better Data Grade wire. While Category 3 or 4 wire may initially seem to work, it will soon cause data loss. The higher speed needs higher quality wire.*

*For 10 Mbps operation, you can use either UTP Category 3, 4, or 5 Data Grade wire.*

## Setup Driver Program

If you want to view or change the configuration of your Ethernet card, you can perform setup program on the distributed diskette.

### README File

Driver setup to the card is described in the README.DOC file found on the diskette provided. Please take a few minutes to print and read this file so that you don't miss any important notices.

*Note: Please also refer to README.DOC file for more about Wake on LAN function.*

### Device Drivers on Diskette

The Driver Diskette contains several device drivers. These drivers are described below. The utility diskette also contains more updated information on configuring and installing these drivers with the network operating system of your choice.

- ODI** The ODI drivers are used when the card is installed in a Novell NetWare network.
- NDIS** The NDIS driver is used by Microsoft LAN Manager, Windows for Workgroups, Banyan VINES, DECnet Pathworks, WIN/TCP PathWay Access, IBM LAN Support Program and 3Com's 3+ Open, among others.
- NDIS3** The NDIS 3.X drivers are used by WFW 3.11/NT 3.51/Win 95.

- NDIS4** The NDIS 4.X drivers are used by NT 4.0/Win 95 OSR2.
- NDIS5** The NDIS 5.X drivers are used by Win98/Win2000 (WinMe).
- UNIX** Supports SCO UNIX, Linux FreeBSD.
- Packet** The Packet driver is used at TCP/IP environment.

## Technical Specification

### Hardware Interface Standard

- PCI Bus Specification V2.2 or above compliant computer

### Ethernet Standards Complies

- IEEE 802.3 10BASE-T and 802.3u 100BASE-TX (unshielded and shielded twisted-pair) standards
- CSMA/CD protocol

### Environmental Operating Range

- Operation Temperature: 5°C to 55°C
- Operating Humidity: 10% to 90% (non-condensing)

### Power Requirements

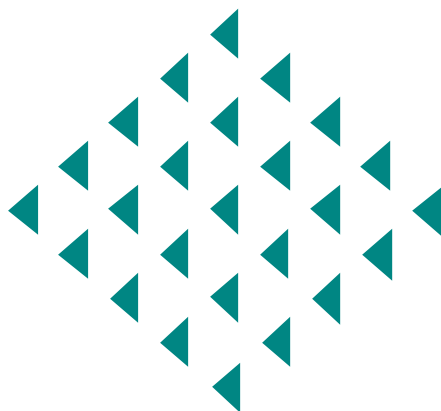
- Operation Voltage: +5V +/- 5% @ 250mA

**EP-320X-R1/R1L**

**EP-320X-S1/S1L**

*100/10M PCI Adapter &  
100/10M Wake on LAN  
PCI Adapter*

## **User's Guide**



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