TE100-PCIWS

32-bit PCI-Bus 10/100Mbps

ACPI Fast Ethernet Card

Quick Installation Guide

(For NS DP83815)

FCC Class B Certification

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)

注意
　この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準
に基づく第一種情報技術装置です。この装置を家庭環境で使用すると電波妨
害を引き起こすことがあります。この場合には使用者が適切な対策を講ずる
よう要求されることがあります。

Introduction

Thank you for choosing the 32-bit PCI-Bus 10/100Mbps NWay ACPI Fast Ethernet Card. This card is auto-configurable upon power up and also supports auto-negotiation to automatically select the optimum speed and communication mode of an attached device. Additionally, the 32-bit PCI-Bus 10/100Mbps NWay ACPI Fast Ethernet Card complies with ACPI, and PC99, and includes support for Remote Wake-Up by Magic Packet™, LinkChg and Microsoft®wake-up frame.

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. The 3-wire Wake-On-LAN cable (included with certain models only) provides one line for the network card auxiliary power and one line for the card wake-up signal, the other line is ground (if the motherboard complies with PCI 2.2, you don't need to install the Wake-On-LAN cable). Even if the PC is powered off, network card still receives power to maintain the link status and monitoring the network. When a wake-up packet is received, the card signals the motherboard to power up the PC and maintenance and other support tasks can be performed.

Product Featues

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

- Compliant with IEEE 802.3, 10BASE-T standard
- Compliant with IEEE 802.3u 100BASE-TX standard
- Compliant with IEEE ANSI/802.3 NWay Auto-negotiation standard
- Compliant with PCI 2.1, 2.2 standards
- Compliant with PC99 standard
- Supports Wake-On-LAN function for remote wake-up (AMD Magic Packet, LinkChg and Microsoft wake-up frame)
- Supports ACPI, PCI power management.
- Half/Full duplex capability
- Supports Full Duplex Flow Control (IEEE 802.3x)
- Built-in FIFO buffers reduce overhead of memory transfers.
- Drivers for all leading Network Operating Systems.
- Two LED indicators: Link, Activity.
  - Link Indicator
    When this LED indicator lights *amber,* the adapter's connection is 10Mbps. When this LED indicator lights *green,* the adapter's connection is 100Mbps.
  - Activity Indicator
    A flashing *green* LED indicates that the adapter is sending or receiving data.

Installation

The installation procedures for the 10/100Mbps PCI bus Fast Ethernet Card including hardware installation, BIOS (on the motherboard) configuration, and driver installation.

Step 1, Hardware Installation

1. Power off the computer, unplug the power cord, and remove the computer's cover.
2. Select an unused PCI bus-master slot and remove its protective bracket.
3. Carefully insert the card and press until all the golden connectors are firmly seated inside the slot. Secure the card's bracket on the PC's chassis with a screw.
4. Attach the Wake-On-LAN cable (optional, for PCI 2.1 motherboard). If you require Wake-On-LAN capability, attach one end of the 3-pin Wake-On-LAN cable to the connector on the top edge of the card, and the other end to the "WOL" connector on the motherboard. Refer to your computer's installation manual to locate this connector.
5. Replace the computer's cover, connect the network cable to the newly installed network card, and reconnect the computer's power cord.

Step 2, BIOS Configuration

Some Plug-n-Play BIOS programs occasionally assign Interrupt Number which has been assigned to another device to the PCI Network Card. In such a case, the conflict of Interrupt Number will cause both devices not functioning properly. To resolve this issue, it is necessary to run the CMOS Setup utility, and manually assign a non-conflicting Interrupt Number to each PCI devices. Please consult the motherboard's User's Guide for instructions on how to configure BIOS settings. ***Please do not attemp to change the BIOS settings unless you are familiar with the BIOS configuration.***

Step 3, Driver Installation

The last step of the installation is to install the network driver. The driver for each networking operating system is under a separate directory. A HELPME.EXE file under root directory lists the information and detailed installation procedures for all the available drivers.

Troubleshooting

If you experience any problem with the adapter, first verify that the appropriate driver is loaded, the network cable has the correct grade and is working, and the device the network card is connected to is functioning properly.

1. Ascertain that the adapter card is fully and firmly seated in the PCI slot (please check this with the computer's power off).

2. Check the length and rating of connecting cables (CAT5 100 meter max.).

3. Ascertain that the adapter's PCI slot is not deactivated at the BIOS level. The CMOS Setup utility in PCI computers normally provides the options to activate or deactivate the PCI slots.

4. Replace the adapter in question with a verified adapter and run *DIAG.EXE* diagnostic tests on the sofrware diskette at directory of \DIAG\.

   Note: Please boot the computer to DOS buy using Windows startup disk or DOS disk and then run the DIAG.EXE. This DIAG program may not run properly in Windows DOS prompt.

5. Install the questioned adapter in another PCI slot or a different PCI computer and run the test again.

6. Remove all other PCI adapters from the computer and run the tests again. If the

verification/diagnostic is not normal, then there is probably an interrupt number conflict which will have to be resolved manually by running CMOS Setup Utility after installing all of the expansion cards.

Specifications

Standards:	IEEE 802.3 10BASE-T
	IEEE802.3u 100BASE-TX
	ANSI/IEEE 802.3 NWay Auto-negotiation
	IEEE 802.3x Full Duplex flow control
	PCI Local Bus Rev.2.1, 2.2
Host interface:	32-bit PCI 2.1, 2.2. Bus Master
Wake-On-Lan:	Magic Packet
	LinkChg
	Microsoft wake-up frame
LED indicators:	Link, Activity
Media Interface:	RJ-45
EMI Compatiblity:	FCC Class B
	CE Certification, Class B
	VCCI Class B
Temperture:	Storage: -10°C ~ 70°C
	Operating: 0°C ~ 50°C
Humidity:	10% ~90% non-condensing
Power Consumption:	0.6 Watts (maximum)
PCB Layer:	2 layers