Trademarks

FCC Warning

This equipment has been tested and found to comply with the limits for a Class A 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 the Instruction manual, 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 Marking Warning

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

Revision

PLANET Ethernet Adapter - ENW-9503 User's Guide

Rev: 2.0

Part No. EM9503V2

About This Guide

Thank you for purchasing PLANET ENW-9503, high performance PCI Fast Ethernet Adapter. This guide is to provide the installation and usage of the card for network installers or users. ENW-9503 complies with the latest PCI bus specifications and comes jumperless to simplify installation. Extensive driver supports for commonly used network operating systems including NetWare, Windows 95/98, Windows NT, and TCP/IP are available. The following summarizes the contents of the chapters and appendix.

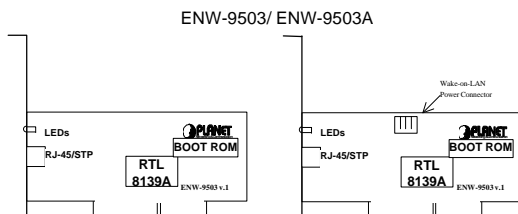| Section	Contents
Chapter 1	Gives an overview of the hardware characteristics and benefits
Chapter 2	Describes the physical installation of the ENW-9503 adapter, specifying adapter settings, software setting, and installing a network driver.
Appendix A	Troubleshooting
Appendix B	Product Specification

1. INTRODUCTION

Hardware Overview

ENW-9503 10/100 network adapter complies to PCI 2.1 specification and supports half/full duplex feature which can double network bandwidth. Supports both 10Mbps and 100Mbps network speed, 100Base-TX operates on two pairs of category 5 UTP cable and 10Base-T operates on Category 3,4,5 UTP cable. And with the Auto-Negotiation technology, network speed is auto detected. When you connect the adapter to 10Base-T hub via UTP cable, the network speed becomes 10Mbps. Similarly, if you connect the adapter to 100BaseTX hub, the network speed is 100Mbps. If the hub is a switching hub which supports full duplex function, then the speed will be doubled to 20Mbps/200Mbps through its auto-negotiation.

Real hassle free installation is achieved by conforming to PCI bus. Just plug in the card and all setup is done automatically. This adapter supplies many drivers including ODI driver for NetWare 3.x/4.x, NDIS driver for Microsoft LAN Manager, Windows 95/98, Windows NT, and a Packet Driver for TCP/IP software. Whatever your requirements are ease of installation, superior performance or responsive support backed up by unlimited technical support, this adapter is the superior choice.

ENW-9503/ ENW-9503A

Features & Benefits

- ♦ Supports 32-bit PCI Bus Master for high performance and low processor utilization.
- ♦ Complies with the IEEE 802.3 CSMA/CD, 100Base-TX and 10Base-T standard.
- ♦ Full duplex design to double the performance to 20Mbps/200Mbps.
- ♦ One STP connector for 100Mbps or 10Mbps network speed.
- ♦ Support Auto-negotiation function.

- ♦ Built-in FIFO buffers to eliminate external memory.
- ♦ Supports early interrupt-on-transmit to increase performance.
- ♦ Supports ODI driver for NetWare 3.x/4.x; NDIS driver for LAN Manager, Windows 95, Windows 98, Windows NT; Packet Driver for TCP/IP software.
- ♦ Provides diagnostic software and two LEDs to indicate network link/activity and 10/100Mbps selection.
- ♦ Supports smart remote Boot ROM (optional)
- ♦ Support ACPI (Advanced Configuration and Power Interface) and Remote Wake-up (Wake-on-LAN) (ENW-9503A)

2. INSTALLATION

General Installation

1. Turn off the computer and remove its cover.
2. Insert the card into one of the free PCI slots and secure the adapter with screw firmly. Put back the cover of the computer
3. Connect to the network using a straight UTP/STP cable (328 feet, maximum, Category 5 for 100Mbps, Category 3,4,5 for 10Mbps)
4. Power on the PC and install the driver

Configuration / Diagnostic

Basically, ENW-9503 is completely self-configurable, requiring no intervention from the user. You can also run diagnostic of the card from the **setup.exe** program provided within the driver diskette.

Insert the floppy diskette provided with ENW-9503, in pure DOS prompt, execute **setup.exe** command and you'll see the following:

. View Current Configuration
. Setup New Configuration
. Diagnostic
. Exit

Please follow the easy menu-driven program to configure the cards.

Driver Installation

For detailed information, please refer to the test document in the diskette provided with the product or refer to the file **Readme.exe**.

BOOT ROM Installation (Optional)

The product provides a socket for a remote boot ROM. With a boot ROM, a host computer can load the operating systems over the network.

1. Plug in the boot ROM to the appropriate position, make sure the direction is correct.
2. Enable the boot ROM function. Please see **Setup.exe** program and **Readme.exe** for detail.
3. Enable the RPL service of your network server.

Remote Wake-Up (ENW-9503A)

ENW-9503A provides a 3-pin connector for a "stand-by" power connection to your PC's mainboard. Please check the Readme.exe and your mainboard's Guide for the "Remote-Wake up" installation.

APPENDIX A TROUBLESHOOTING

If you experience any problems with the adapter, first make sure the appropriate driver is loaded, and the proper cable is connected to the adapter port. (Cat. 5 UTP for 100Mbps, Cat. 3,4,5 for 10Mbps) Then the hub should comply with the adapter specification, such as 10Mbps 10Base-T or 100Mbps 100Base-TX, then check the LED. Secondly, most common factors that cause an adapter to fail are configuration conflicts and cabling problems. PCI cards shouldn't have any conflict problem due the plug and play specification. Use the adapter LED indicators and Diagnostic Program. For information on the Diagnostic Program, please see Setup program. If the problem persists, call your dealer for help.

The adapter provides two LED indicators to indicate network status.

¨ 10M/Link/Activity
A yellow LED indicates if the 10Mbps UTP has been LINK ok or not. When the light is OFF, it indicates that the 10Mbps UTP port has not been connected or LINK not ok. When the light is ON, it indicates that the 10Mbps UTP port LINK ok. When the light is BLINKING, it

indicates that there is traffic flow on the network the adapter is connected to.

¨ 100M/Link/Activity

A green LED indicates if the 100Mbps UTP has been LINK ok or not. When the light is OFF, it indicates that the 100Mbps UTP port has not been connected or LINK not ok. When the light is ON, it indicates that the 100Mbps UTP port LINK ok. When the light is BLINKING, it indicates that there is traffic flow on the network the adapter is connected to.

APPENDIX B PRODUCT SPECIFICATION

Standard	: IEEE 802.3u, 100Base-TX, 10Base-T
Transmission rate	: 10 /20, 100/200Mbps, Auto-Negotiation
Hardware	: PCI bus Spec. Ver 2.1
LED	: 2; 10/LNK/ACT, 100/LNK/ACT
IRQ	: Assigned by PCI BIOS
I/O Address	: Assigned by PCI BIOS
Boot ROM Address	: Assigned by PCI BIOS
Driver Support	: Novell NetWare3.x ,4.x, Windows NT3.1, NT3.5, NT3.51, NT4.0 Windows for workgroups 3.x, Windows 95/98, TCP/IP, Lantastic 4.x, 5.x, 6.x, and SCO UNIX.
Temperature	: 0 to 55 degree C(operating)
Power	: 1.8 Watts (max)
Emission	: FCC class B; CE

EM9503-2 $C\epsilon$ **ISO9002**