User's Manual

ENW-9800

PCI-E Dual Port
10 Gigabit Ethernet Adapter

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FCC Caution

This equipment has been tested and found to comply with the limits 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 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 whose 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.

Revision

User's Manual for PLANET PCI Express 10 Gigabit Ethernet Adapter

Model: ENW-9800

Rev: 1.0 (JUL, 2009)

Part No. EM-ENW9800

Table of Contents

Chapter 1 Introduction

Meet the next gerneration interface - PCI Express dual port 10 Gigabit Ethernet can provide the best solution for one of the major issues of Local Area Networks - communication speed. Hundred times as fast as the existing 100Base-TX solutions, using the PLANET ENW-9800 to connect your servers and workstations guarantees extremely high throughput and excellent signal quality.

The ENW-9800 is a PCI Express dual port 10 Gigabit Ethernet adapter designed to address high-performance system application requirements. With the higher bandwitdh of x8, x4 PCI Express Bus Architecture, ENW-9800 can provide better performance than the network cards which base on 32/64bit PCI architecture. It is specifically designed to allow throughput at rates up to 2.5Gbps, thus eliminating the existing 32/64bit PCI network card.

1.1 Package Content

Check that your package contains the following items:

- ✓ **1 x ENW-9800**
- ✓ **1 x Quick Installation Guide**
- ✓ **1 x CD-ROM Manual / Driver**

Please contact the seller if any of the items is missing or damaged.

Note	Be sure to retain your proof of purchase, as it is required to receive warranty service.

1.2 Features

- ➢ Compliant with PCI Express 1.1 – x8 PCI Express standard
- ➢ Supports IEEE 802.3ae, IEEE 802.3x, IEEE 802.1Q VLAN.
- ➢ Supports dual SFP Slots.
- ➢ Integrated Frame Buffer Memory for Dual TX 32KB and Dual RX 64KB.
- ➢ Supports Jumbo Frame up to 16K
- ➢ IP, TCP and UDP checksum offload

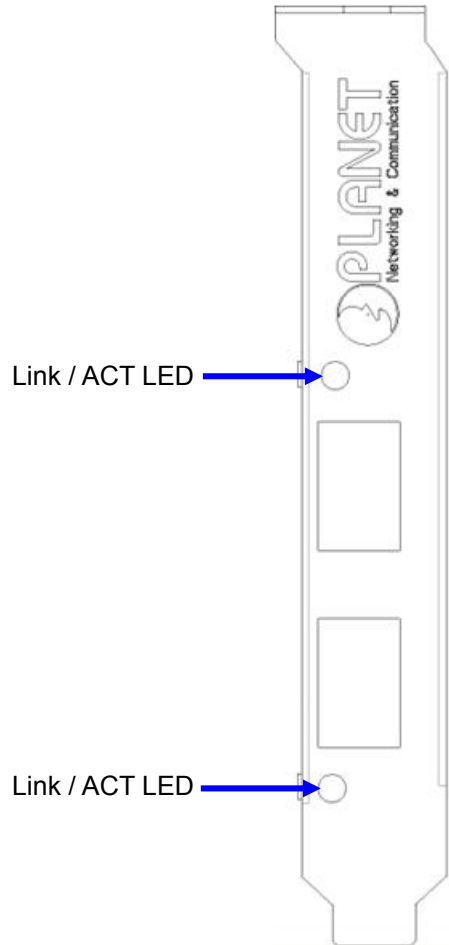## 1.3 Gathering Tools and Documentations

To install the adapter, you need the following items:

- ✓ A suitable screw driver
- ✓ Your operating system documentation
- ✓ Your system unit documentation, including any service documentation

Chapter 2 Hardware Installation

2.1 LED definitions

The faceplate of ENW-9800 has three LEDs: 100, 1000 and ACT. The pictures below have showed the faceplate of ENW-9800. Table 2-1 explains the function and state of the LEDs.

Link / ACT LED

Link / ACT LED

Faceplate of ENW-9800

LED	Description
Link	Lights to indicate a functional network link through the port.
Act	Blinks to indicate data has been sending and receiving via the port.

Table 2-1 Descriptions of ENW-9800 LEDs
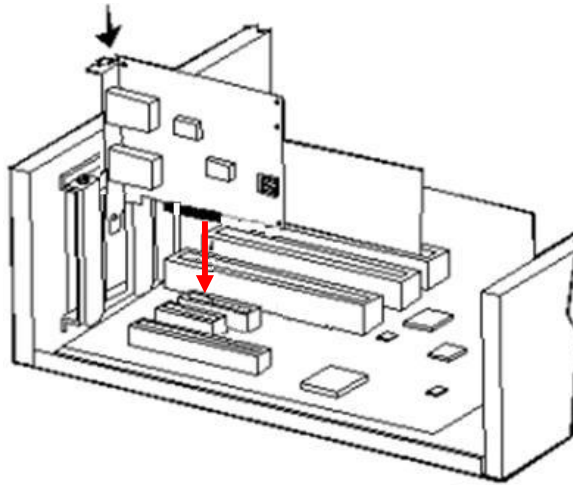
2.2 Hardware Installation

Step 1: Please turn off your PC.

Step 2: Remove any metal decorations from your hands and wrists.

Step 3: Remove the cover from your PC.

Step 4: Locate an empty PCI Express slot and remove the corresponding back plate. Save the screw for use in Step 6.

Step 5: Carefully insert the adapter into the chosen slot and press firmly with proper push to ensure it is fully seated in the slot.

Step 6: Secure the adapter with the screw you saved in step 4.

Step 7: Replace the PC cover.

Step 8: Power on the PC and refer to next chapter to install the driver of this adapter.
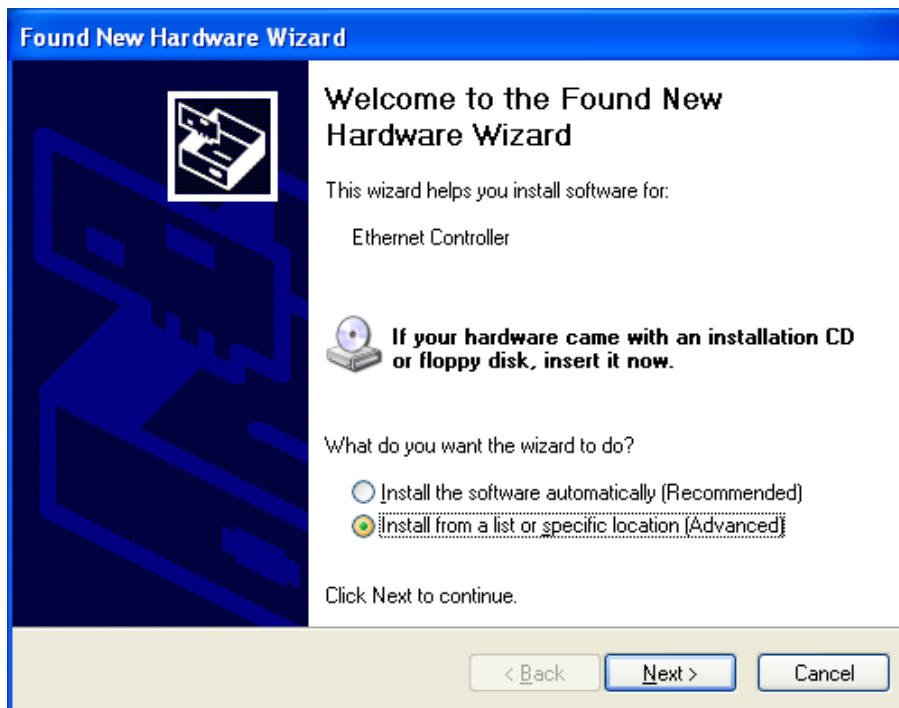
Chapter 3 Driver Installation

A device driver must be installed before your ENW-9800 can be used with your computer. This chapter describes how to install the driver for various operating systems. Before you begin the driver installation process, make sure you have the installation disks for your computer's operation system nearby.

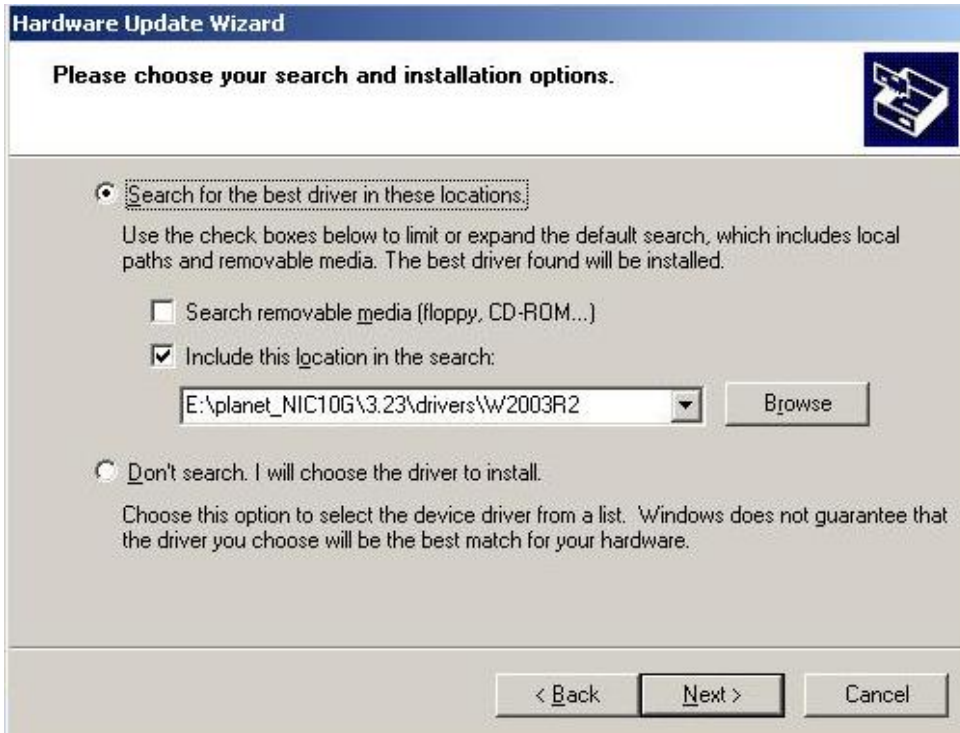## 3.1 Installing Driver to Windows Server 2003/2003R2

> **Note** *The following installation operates under Window2003R2. Procedures will be similar to Window Server 2003 and Windows XP.*

1. Install ENW-9800 into your PC's PCI Express slot.

2. Power on the PC and insert Driver Disk into CD-ROM drive.

3. Windows 2003R2 will detect ENW-9800 and ask you to install driver. Please select the second option and click **"Next"**.

4. Please select **"Include this location in the search"** and then click **"Browse"** to specify ENW-9800 driver location to install. (Assume "E" is your CD-ROM drive, you can find ENW-9800 driver in E:\planet_NIC10G\3.23\drivers\W2003). Please click **"Next"** to continue.

5. Win2003R2 will show you this dialog box to prompt you the driver is not digitally signed by Microsoft, please press **"Continue Anyway"** to continue.
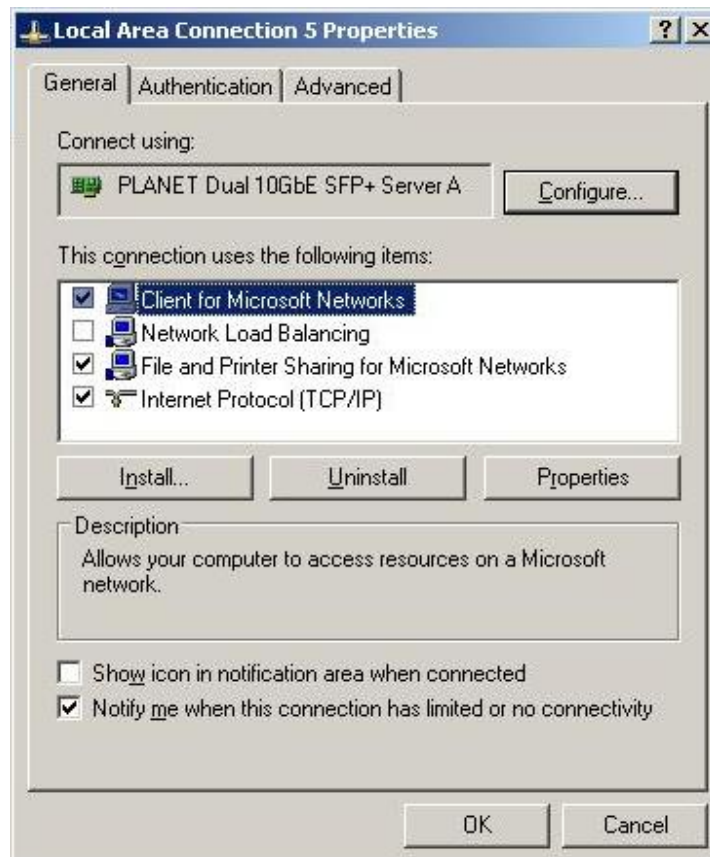
6. Please click **"Finish"** to complete the driver installation.
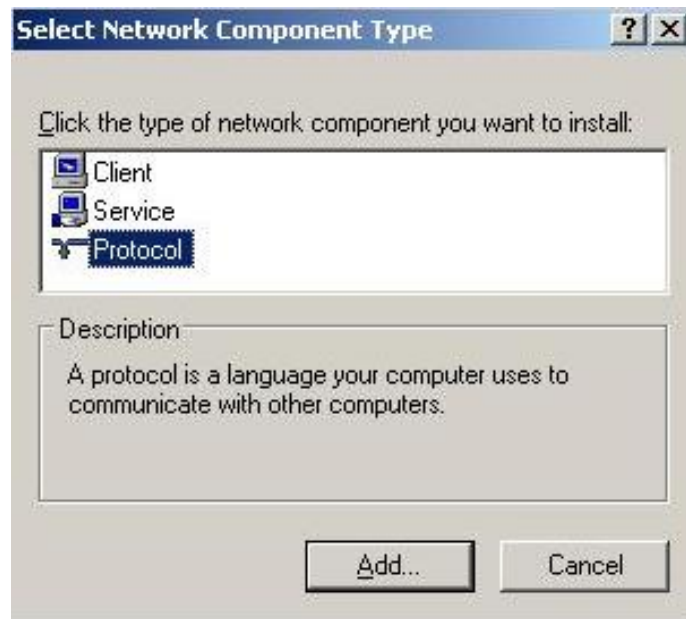

3.2 Installing VLAN Support Driver To Windows Server 2003/2003R2

1. Open Network Connection properties by Start\Settings\Control Panel\Network Connections then click **"Install"** Button.
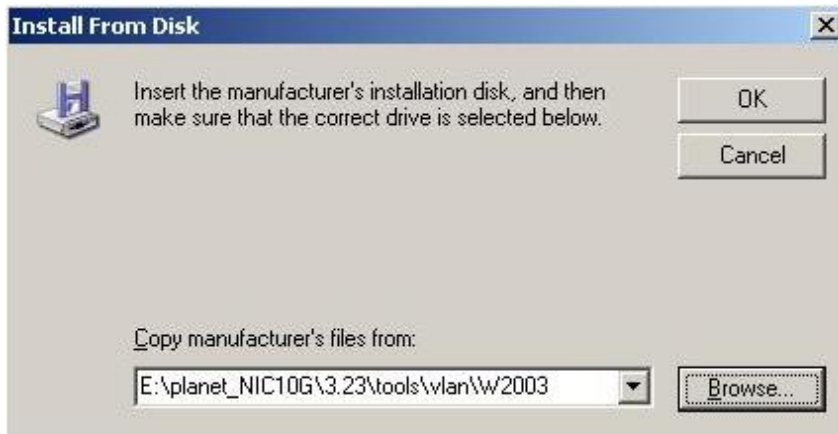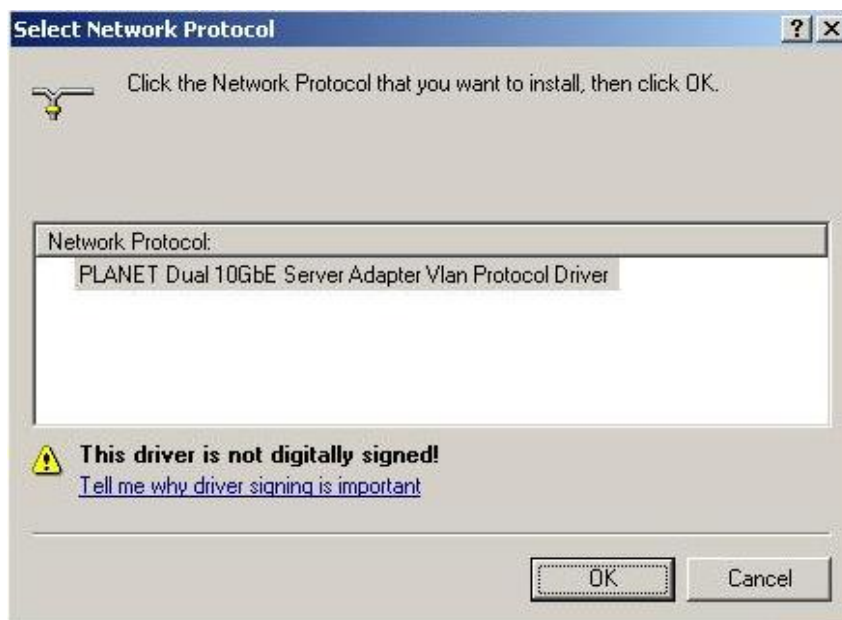
2. Select **"Protocol"** and click **"Add"** button

3. In **"Select Network Protocol" window click "Have Disk"** Button

4. Press **"Browse"** to specify ENW-9800 VLAN driver location to install. (Assume "E" is your CD-ROM drive, you can find ENW-9800 driver in E:\planet_NIC10G\3.23\tools\vlan\W2003). Please click **"OK"** to continue.
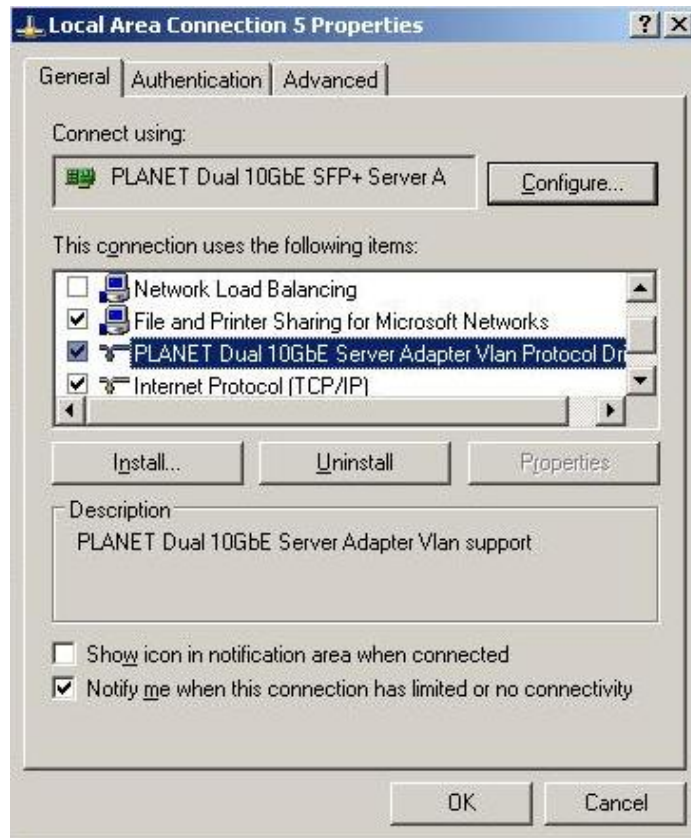
5. In **"Select Network Protocol" window select "**PLANET Dual 10GbE Server Adapter VLAN Protocol Driver"

6. Win2003R2 will show you this dialog box to prompt you the driver is not digitally signed by Microsoft, Pease press **"Continue Anyway"** to continue.

7. Wait a moment or more until **"Select Network Protocol"** window is closed and installation is completed

Product	**ENW-9800** Dual 10Gbps SFP+ PCI Express Server Adapter
Hardware Specification	
Attachment Interface	PCI Express Host Bus Interface, 8 lanes / 4 lanes PCI Express Rev 1.1a
Media Interface	2 SFP+ connectors (SFF-8431)
Optical Module Options	LRM, LR, SR
Cabling Options	SFP+
Memory	3Mb internal memory
Jumbo Frame	9K/16KBytes
LED Indicators	Link / Active per port
Typical Power Dissipation	10W
Dimension (W x D)	147 x 63.5 mm (Low Profile)
Advanced Function	
Layer 2 Features	• IEEE 802.3x flow control support • IEEE 802.1q VLAN support • Multicast ACL
Performance enhancements	• Microsoft Scalable Networking • Receive-side scaling (RSS): Optimization for multiple CPUs under Windows OS control • Reduced host bus traffic • Optimization for multiple CPUs • IP acceleration • Widely used network protocol • IP, TCP and UDP checksum offloading • Large Send (up to 64 KB): Increased network throughput • IPv4, IPv6
OS Support	• Windows Server 2003, Windows Server 2008 • Windows XP, Windows Vista™ • Linux 2.4, Linux 2.6, Linux 64-bit • Redhat Enterprise Linux 4.7 & 5.3 • VMware® ESX 3.5 • Multiple queues management • Windows Management Interface (WMI)
Standards Conformance	
Regulation Compliance	FCC Part 15 Class B, CE
Standards Compliance	IEEE Std 802.3ae 10Gb/s Ethernet IEEE 802.3x Flow Control and Back pressure IEEE 802.1Q VLAN Tagging
Environment	
Operating	Temperature: 0 ~ 65 Degree C Relative Humidity: 5 ~ 95% (non-condensing)
Storage	Temperature: -40 ~ 85 Degree C Relative Humidity: 5 ~ 95% (non-condensing)

EC Declaration of Conformity

For the following equipment:

*Type of Product : Dual 10G SFP+ Server Adapter
*Model Number : ENW-9800
* Produced by:
Manufacturer's Name : **Planet Technology Corp.**
Manufacturer's Address : 11F, No. 96, Min Chuan Road, Hsin Tien,
  Taipei, Taiwan, R.O.C.

is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility Directive on (89/336/EEC).
For the evaluation regarding the EMC, the following standards were applied:

Emission	EN 55022	(1994 + A1:1995 + A2:1997)
Harmonic	EN 61000-3-2	(2000)
Flicker	EN 61000-3-3	(1995 + A1:2001)
Immunity	EN 55024	(1998)
ESD	EN 61000-4-2	(1995 + A1:1998 + A2:2000)
RS	EN 61000-4-3	(1995 + A1:1998 + A2:2000)
EFT/ Burst	EN 61000-4-4	(1995 + A1:2000)
Surge	EN 61000-4-5	(1995 + A1:2000)
CS	EN 61000-4-6	(1996 + A1:2000)
Magnetic Field	EN 61000-4-8	(1993 + A1:2000)
Voltage Disp	EN 61000-4-11	(1994 + A1:2000)

Responsible for marking this declaration if the:

☒ **Manufacturer** ☐ **Authorized representative established within the EU**

Authorized representative established within the EU (if applicable):

Company Name: **Planet Technology Corp.**

Company Address: **11F, No.96, Min Chuan Road, Hsin Tien, Taipei, Taiwan, R.O.C**

Person responsible for making this declaration

Name, Surname **Kent Kang**

Position / Title : **Product Manager**

Taiwan	**9th, July, 2009**	
Place	*Date*	*Legal Signature*

PLANET TECHNOLOGY CORPORATION