

User's Manual

ENW-9800

PCI-E Dual Port 10 Gigabit Ethernet Adapter

DEMONE DEMONS

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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

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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.



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

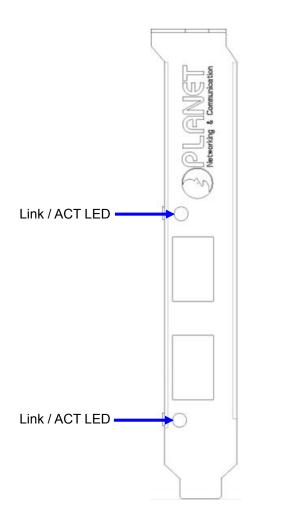
To install the adapter, you need the following items:

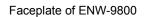
- ✓ A suitable screw driver
- ✓ Your operating system documentation
- ✓ Your system unit documentation, including any service documentation

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.



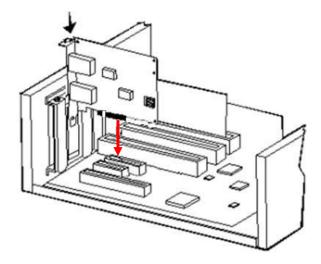


LED	Description
Link	Lights to indicate a functional network link through the port.
Act	Blinks to indicate data has been sending and receiving via the port.

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



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

Found New Hardware Wizard			
	Welcome to the Found New Hardware Wizard		
	This wizard helps you install software for:		
	Ethernet Controller		
	If your hardware came with an installation CD or floppy disk, insert it now.		
	What do you want the wizard to do?		
	 Install the software automatically (Recommended) Install from a list or specific location (Advanced) 		
	Click Next to continue.		
	< <u>B</u> ack <u>N</u> ext > Cancel		

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.

	te Wizard ose your search and installation options.
• Searc	h for the best driver in these locations.
	e check boxes below to limit or expand the default search, which includes local and removable media. The best driver found will be installed.
	Search removable media (floppy, CD-ROM)
1	Include this location in the search:
	E:\planet_NIC10G\3.23\drivers\W2003R2
C Don't	search. I will choose the driver to install.
	e this option to select the device driver from a list. Windows does not guarantee I ver you choose will be the best match for your hardware.
	< Back Next > Cancel

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.

Hardwar	e Installation
1	The software you are installing for this hardware:
	PLANET Dual 10GbE Server Adapter(Multifunction)
	has not passed Windows Logo testing to verify its compatibility with this version of Windows. (<u>Tell me why this testing is important</u>)
	Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
	Continue Anyway

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.

Trianormoduor	n Advanced	
onnect using:		
PLANET Dual 1	0GbE SFP+ Server A	<u>C</u> onfigure
his connection uses t	he following items:	
🗹 🔜 Client for Micr	osoft Networks	
🗆 🛃 Network Load		
	er Sharing for Microsoft	Networks
🗹 🐨 Internet Proto	col (TCP/IP)	
1	(
l <u>n</u> stall	<u>U</u> ninstall	P <u>r</u> operties
Description		
	er to access resources	on a Microsoft
Allows your compute network.		
network.	cation area when conn	ected
network. Sho <u>w</u> icon in notific	cation area when conn s connection has limite	
network. Sho <u>w</u> icon in notific		
network. Sho <u>w</u> icon in notific		

2. Select "Protocol" and click "Add" button

Client	network compo		1
Service			
Protocol			
escription			
A protocol is a	language your		ses to
communicate	with other comp	outers.	

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

Select Network Protocol	<u>?×</u>
Click the Network Protocol that you an installation disk for this component	want to install, then click OK. If you have it, click Have Disk.
Network Protocol:	1
AppleTalk Protocol Microsoft TCP/IP version 6 Network Monitor Driver NWLink IPX/SPX/NetBIOS Compatible T Reliable Multicast Protocol	ransport Protocol
This driver is digitally signed. <u>Tell me why driver signing is important</u>	<u>H</u> ave Disk
	Cancel

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.

	om Disk	
H	Insert the manufacturer's installation disk, and then make sure that the correct drive is selected below.	OK
		Cancel
	e (), 10 (
	Copy manufacturer's files from:	
	E:\planet_NIC10G\3.23\tools\vlan\W2003	Browse

5. In "Select Network Protocol" window select "PLANET Dual 10GbE Server Adapter VLAN Protocol Driver"

elect N	etwork Protocol	? ×
¥	Click the Network Protocol that you want to install, then click	< OK.
Netwo	ork Protocol:	
PL	ANET Dual 10GbE Server Adapter Vlan Protocol Driver	
	his driver is not digitally signed! all me why driver signing is important	
	ОК	Cancel
		Cancel

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.

Continuing your installation of this software may impai or destabilize the correct operation of your system
either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the software vendor for software that has passed Windows Logo testing.

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

"Local Area Connection 5 Properties	?>
General Authentication Advanced	
Connect using:	
PLANET Dual 10GbE SFP+ Server A	<u>C</u> onfigure
This connection uses the following items:	
Retwork Load Balancing	
File and Printer Sharing for Microsoft Ne	
PLANET Dual 10GbE Server Adapter V Trenet Protocol (TCP/IP)	ian Protocol Dr
Install Uninstall	Properties
Description	
PLANET Dual 10GbE Server Adapter Vlan sup	trong
Show icon in notification area when connecte	ed
Notify me when this connection has limited or	
οκ	Cancel

Chapter 4 Specifications

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 802.3ae10Gb/s EthernetIEEE 802.3xFlow Control and Back pressureIEEE 802.1QVLAN Tagging			
Environment				
Operating	Temperature:0 ~ 65 Degree CRelative Humidity:5 ~ 95% (non-condensing)			
Storage	Temperature:-40 ~ 85 Degree CRelative 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 Nam	e	: Planet Technology Corp.
Manufacturer's Add	ess	: 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 : <u>Product Manager</u>

Taiwan Place <u>9th, July, 2009</u> Date

Legal Signature

PLANET TECHNOLOGY CORPORATION