

Gigabit Ethernet PCI Express Host Controller



Introduction

PCI Express is the next revolution in I/O interconnect standards that will deliver the bandwidth and features required by PCs, consumer electronics and communications devices. The architecture is a cost-effective, low-pin count, and point-to-point technologies offering maximum bandwidth, reducing cost and design complexity and enabling smaller form factors. This card is the best solution for Gigabit Ethernet PCI Express and the interface has a potential transfer rates of 2.5 Gbps using a single-lane (or x1) PCI Express link.

This Card is a 10/100/1000M Gigabit Ethernet PCI Express Card, which is specifically designed to plug into a desktop equipped with an available x1, x2, x4, x8 or x16 PCI Express slot. It provides throughput and connectivity at Gigabit speeds up to 1000 Mbps (1Gbps) raw bandwidth, that is 100 times faster than the original Ethernet, yet is compatible with existing Ethernet. This Gigabit Ethernet PCI Express Card equips high quality Marvell chipset which is optimized for maximum throughput and low CPU utilization solution. It also comes with a comprehensive of software drivers for all desktop operation systems, including Microsoft Windows, Linux, and Novell Netware.

Features

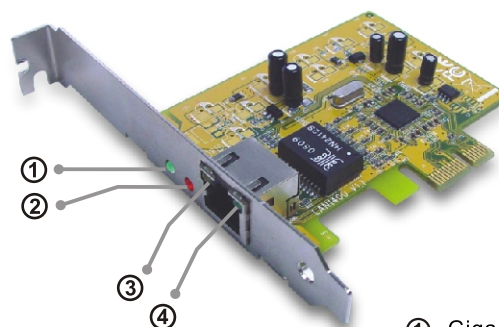
- Designed to meet PCI Express Base Specification Revision 1.0a.
- Single-lane (or x1) PCI Express throughput supports rates of 2.5 Gbps.
- Compliant with 10/100/1000 IEEE 802.3 specification.
- 10/100/1000M data rate auto-negotiation.
- Active state power management (L0s) support.
- LEDs indicate the status of data transmission.
- Automatic MDI/MDIX crossover at all speed.
- Support Wake On LAN (WOL) power management.
- Feature full duplex mode that doubles the network connection speed.
- Support Microsoft Windows 2000, XP, Sever2003 and Linux operation system.
- Compact and slim design perfect solution for all desktop network using.

Package List

Please check if the following items are present and in good condition upon opening your package. Contact your vendor if any item is damaged or missing.

1. Gigabit Ethernet PCI Express Host Controller
2. User's Manual (this document)
3. CD Driver

Hardware Guide



- ① Gigabit Link RED LED
- ② 10/100 bit Link GREEN LED
- ③ LINK LED
- ④ Active LED

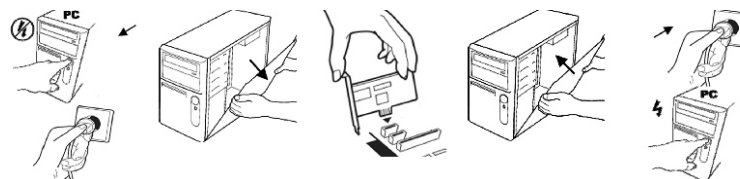
System Requirement

1. Pentium-class computer with one available x1, x2, x4, x8 or x16 PCI Express slot.
2. Microsoft Windows 2000, XP, Sever2003 and Linux operation system.
3. CAT3/CAT4/CAT5/CAT5E/CAT6 UTP/STP cable.

Hardware Installation

Follow the instruction given below to install the Gigabit Ethernet PCI Express Card:

1. Turn your computer off and remove the power plug from the plug socket.
2. Remove the cover from the computer case.
3. Remove the metal cover plate on the rear of a free PCI Express slot.
4. Insert the card into one free PCI Express slot and screw it firmly on the bracket side.
5. Place the cover back onto the computer.
6. Insert the plug into the plug socket.



Driver Installation

Once the Windows 2000, XP and 2003 startup, Gigabit Ethernet PCI Express Card will be detected by system. Following is the procedures for installing Gigabit Ethernet PCI Express card driver under Microsoft Windows XP server pack 2 operation system.

1. Please select "**Yes, this time only**" when Found New Hardware Wizard Windows pop-up. Then click "**Next**" to continue.
2. Ethernet Controller will be detected by system, and please select "**Install from a list or specific location [Advanced]**" then click "**Next**" to continue.



3. Please insert the CD driver bound with Gigabit Ethernet PCI Express Card into your CD/DVD ROM.
4. Select "**Include this location in the search**" and click "**Browse**". Please specify the driver locate within the CD driver then click "**Next**" to start driver installing.

:\LAN\PCIEXPRESS\Marvell\Windows



5. Click "**Finish**" to complete Gigabit Ethernet PCI Express Card installation.



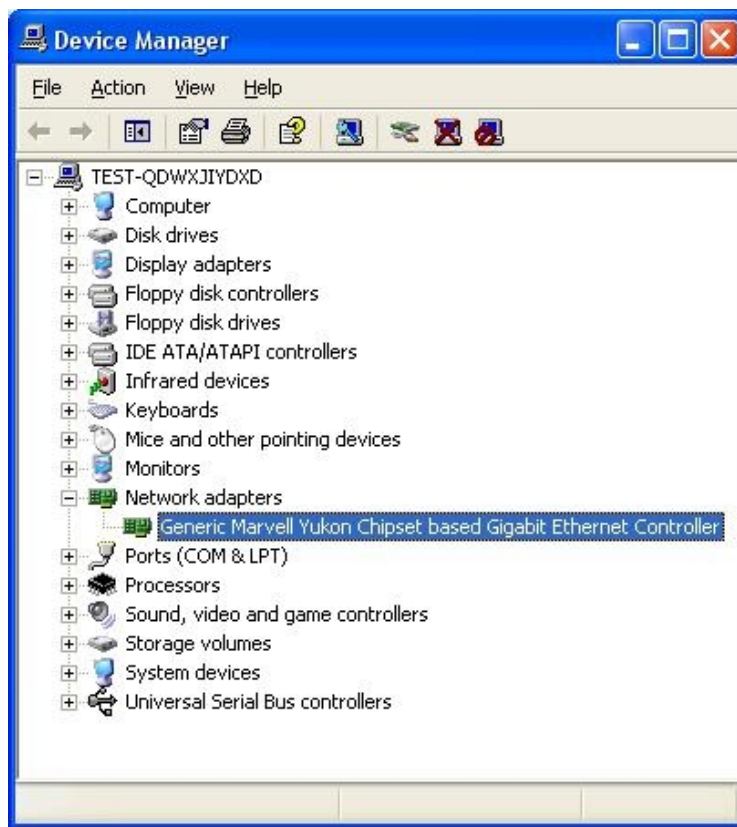
Generic Marvell Yukon Chipset based Gigabit Ethernet Controller

Gigabit Ethernet PCI Express Host Controller

● Hardware Verify

Click on the "Device Manager" tab in System Properties, which you access from the Windows Control Panel. You should see an "Generic Marvell Yukon Chipset based Gigabit Ethernet Controller" installed under "Network adapters" item.

Start > Controller Panel > System > Device Manager



NOTE:

Please refer to the installation guide and driver for Linux 2.4.x & 2.6.x operation system installation within the folder located in the CD driver.

\\LAN\PCIEXPRESS\Marvell\Linux\

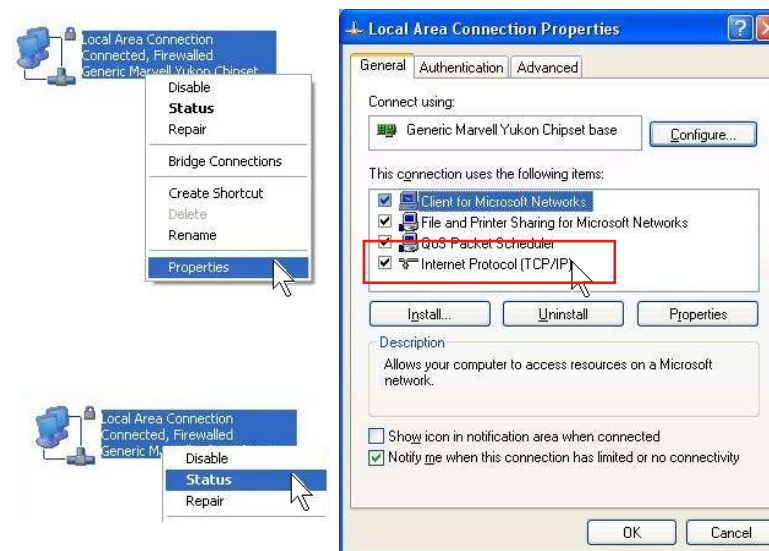
● Networking Settings

1. Click "Network Connection" in Control Panel to set your network settings.



2. Right-click the Local Area Connection used by the Gigabit Ethernet card, then select "Properties" from the pop-up menu.

3. Double-click the "Internet Protocol (TCP/IP)" item to set network settings.



4. Right-click the Local Area Connection used by the Gigabit Ethernet card, then select "Status" from the pop-up menu. You can affirm network status.



● Troubleshooting

■ The computer can NOT detect the Gigabit Ethernet PCI Express card

1. Make sure that the PCI Express cards is correctly plugged into the PCI Express slot; if not, turn off the computer and plug it in again
2. If the PCI Express card is plugged in correctly, see if the golden connectors on the card are clean; if not, clean the connector surface.
3. If still NOT, please change another PCI Express slot on your motherboard.
4. Please upgrade your motherboard BIOS to the latest version. If it still not work, contact your motherboard vendor asking the advanced supporting for BIOS updated.
5. The board itself might be defective. You can try another motherboard testing Gigabit Ethernet PCI Express card working or not.

■ Computer failed to start after inserting Ethernet PCI Express card.

Turn off the computer, remove the Gigabit Ethernet PCI Express card, and try to restart the computer. If the computer starts successfully, it means that this card has not been inserted into the PCI Express slot correctly. Please insert the card firmly into the PCI Express slot or try another slot.

■ How to deal with a exclamation point on Ethernet Host controller.

1. Please shutdown your computer and move the card to another available slot then re-install Gigabit Ethernet driver again.
2. Please point on this device then right-check on the mouse. Selecting "Update Driver" to renew Gigabit Ethernet driver.
3. This exclamation point usually means there is a resource conflict between the Gigabit Ethernet Express card and another card in your system. Please move the card to another available slot. Restart your computer. Windows will then re-configure itself and re-assign resources. Check your device manager again. If the exclamation point is still there then repeat the process until it no longer appears.

■ I can not use Gigabit Ethernet transfer speed.

1. Please affirm your ethernet environment supporting Gigabit structure.
2. Please use CAT6 UTP/STP cable.

■ How to configure 10/100/1000M Ethernet structure?

Connect 10/100/1000M Ethernet over unshielded twisted pair (UTP) cable. Gigabit Ethernet PCI Express card has the ability of automatic sensing and operating on either speed without manual reconfiguration.