User Manual

Version 1.0

Gigabit Ethernet ExpressCard

Introduction

ExpressCard, the next evolution of the PC Card, combines a smaller form factor and faster performance with the PC Card reliability and ease of use. This card is a single-chip solution for Ethernet compact size ExpressCard module and the interface has a potential transfer rate of up to 500 MB/sec (or 250 MB/sec in each direction) using a single-lane (or x1) Express link.

This ExpressCard was created to meet the need of the ExpressCard market where notebooks, desktops, and docking stations could add one additional Gigabit Ethernet ports via a single slim-type 34mm wide ExpressCard. Users will benefit from ExpressCard plug-n-play ease of use, which eliminates the need to open the chassis to add new features.

It's a single-chip, one-lane ExpressCard to Gigabit Ethernet, whcih provides throughput and connectivity at gigabit speeds up to 1000 Mbps (1Gbps) raw bandwidth. It is 100 times faster than the original Ethernet, yet is compatible with existing Ethernets. This Gigabit Ethernet ExpressCard equips high quality Marvell chipset which is optimized for maximum throughput and low CPU utilization solution. It also comes with a comprehensive of software device drivers for all desktop operation systems, including Windows and Linux O.S.

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, Server2003 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. Contract your vendor if any item is damaged or missing.

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

System Requirment

1. Pentium-class computer with one available Express slot.
2. Microsoft Windows 2000, XP, Sevrer2003 and Linux operation system.
3. CAT3/CAT4/CAT5/CAT5E/CAT6 UTP/STP cable.

Hardware Guide

34mm wide Gigabit Ethernet ExpressCard

① Gigabit RJ45 Connector

② State LED : GREEN LED Steady when 10/100 Mbps Link
              Blue LED Steady when 1000 Mbps Link

Hardware Installation

Due to the hot-plug feature of the ExpressCard, the installation of this card quite straight forward. Please insert the Giga Lan ExpressCard into your portable system or Notebook ExpressCard 34/54 wide slot. (Please note the direction of the ExpressCard should match the direction of the slot)
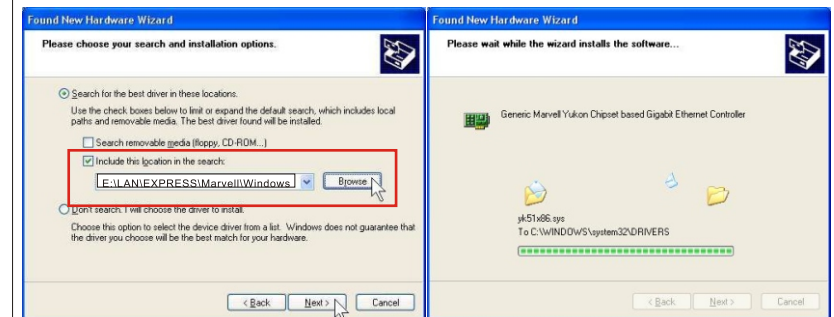

Driver Installation

Once the Windows 2000, XP and 2003 startup, Gigabit Ethernet Express Card will be detected by system. Following is the procedures for installing Gigabit Ethernet 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 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 \ ExpressCard \ Marvell \ Windows

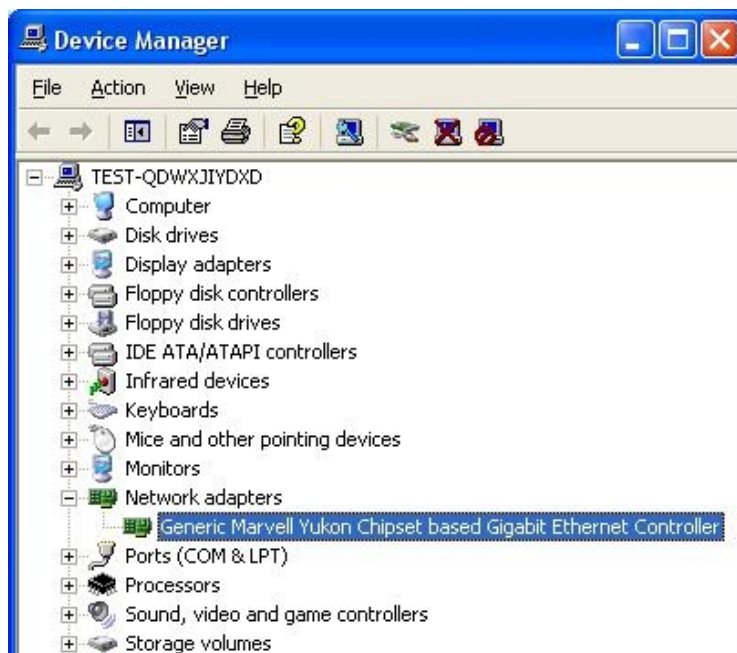5. Click "**Finish**" to complete Gigabit Ethernet Express Card installation.

Generic Marvell Yukon Chipset based Gigabit Ethernet Controller
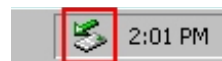
Gigabit Ethernet ExpressCard

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 Adapter**" item.

Start > Controller Panel > System > Device Manager

NOTE:

Unplugging or ejecting your Gigabit Ethernet ExpressCard without first stopping them can often cause your computer to crash and lose valuable data. To safely unplug or eject devices, you can use the icon on the taskbar to quickly unplug or eject your devices.

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.
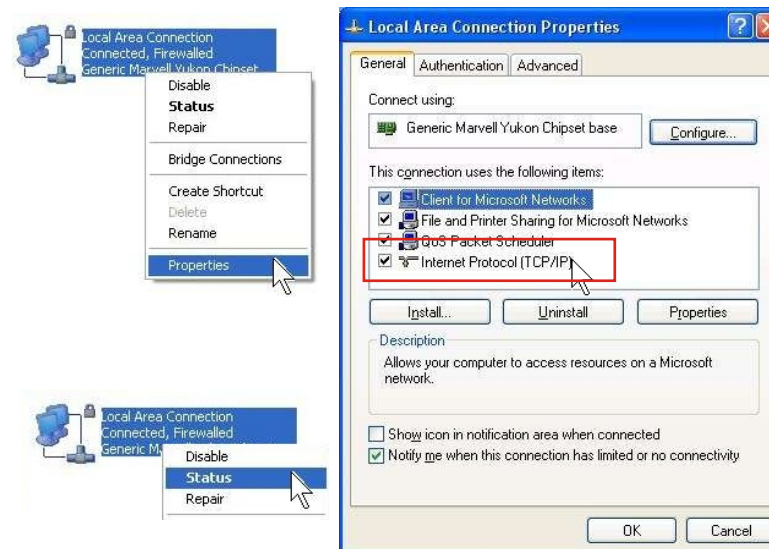
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Networking Settings

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 ExpressCard**

1. Make sure that the Express cards is correctly plugged into the Express slot; if not, turn off the computer and plug it in again
2. If the 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 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 Express card working or not.

■ **Computer failed to start after inserting Ethernet ExpressCard.**

Turn off the computer, remove the Gigabit Ethernet 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.