RC-NIC413

4-Port Gigabit PCIe Card
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Chapter 1: Introduction

1.1 Product 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 4-Port Gigabit Ethernet PCI Express Card, which is specifically designed to plug into a desktop equipped with an available x1, x4, x8 or x16 PCI Express slot. It supports high performance dual channel networking and full duplex communication to achieve up to 2000 Mbps and fast transfer rates, yet is compatible with existing Ethernet. It comes with a comprehensive of software drives for all desktop operating systems, including Microsoft Windows and Linux.
1.2 Features

- Add four 10Mbps/100Mbps/1G compatible RJ-45 Ethernet ports
- Designed to meet PCI Express Specification Revision 2.0
- Four-lane (or x4) PCI Express compatible with x4, x8 and x16 PCI Express slots
- Fully Compliant with IEEE 802.3, IEEE 802.3u, IEEE 802.3ab
- Supports 10/100/1000M data auto-negotiation
- Automatic MDI/MDIX crossover at all speeds
- Up to 9K jumbo frame support
- Support Wake On Lan (WOL) power management
- Feature full duplex mode that doubles the network connections speed

1.3 System Requirements

- Windows® 7/8.x/10 (32/64 bit), Linux
- PCI Express-enabled system with an available PCI Express slot
1.4 Package Contents

- 1 x 4-Port Gigabit Ethernet PCIe Card
- 1 x Driver CD
- 1 x User Manual

Chapter 2: Getting Started

2.1 Hardware Installation

1. Turn off the power to your computer.
2. Unplug the power cord and remove your computer’s cover.
3. Remove the slot bracket from an available PCIe slot.
4. To install the card, carefully align the card’s bus connector with the selected PCIe slot on the motherboard. Push the board down firmly.
5. Replace the slot bracket’s holding screw to secure the card.
6. Secure the computer cover and reconnect the power cord.
2.2 Driver Installation
The following section shows you how to install 4-Port Gigabit Ethernet PCIe Card driver on Windows operating systems.

1. Insert the provided CD into your disk drive. The CD-ROM will start automatically. The following screen will show up and please click “Install Driver”.

![Ethernet Adapter installation interface]

*Note: Actual image may vary

Note: If the install program doesn’t run automatically, please locate and double-click on the Autorun.exe file in the CD to launch the install program.

2. Please click “PCIe 1000M” to start the installation.
3. Click “Next” to continue.

*Note: Actual image may vary

4. Click “Install” to continue.
   Click “Finish” to end of the driver installation steps.
2.3 Hardware Verify

1. Click on the “Device Manager” tab in the Windows Control Panel.
   
   Start > Control Panel > Device Manager
2. Entry “Network adapters” item, and you can read four “Realtek PCIe GBE Family Controller” item in the Device Manager.

Chapter 3: Troubleshooting Tips

- The computer can NOT detect the 4-Port Gigabit Ethernet PCIe Card
  1. Make sure that the PCI Express card is correctly plugged into the PCI Express slot; if not, turn off the computer and plug it 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 4-Port Gigabit Ethernet PCIe Card working or not.

- Computer failed to start after inserting the 4-Port Gigabit Ethernet PCIe Card
  
  Turn off the computer, remove the 4-Port Gigabit Ethernet PCIe Card, and try to restart the computer. If the computer starts successfully, it means that the card has not been inserted into the PCI Express slot correctly. Please clean golden figure by rubber firstly, then change another PCI Express slot.

- I can not use Gigabit Ethernet transfer speed
  
  1. Please affirm your Ethernet environment supporting Gigabit structure.
  
  2. Please use CAT 6 UTP/STP cable.