

PCIe 4 Ports Gigabit Ethernet NIC

PCIe Card

User Manual

Ver. 1.00

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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 four-lane (or x4) 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 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

- Four 10/100/1000Mbps compatible RJ-45 Ethernet ports
- 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
- Teaming support
- Jumbo Frame support
- Half duplex at 10/100 Mb/s operation and full duplex operation at all supported speeds

1.3 System Requirements

- Windows® 7/8.x/10 (32/64 bit), Linux2.4x or later
- PCI Express x4, x8 or x16 slots

1.4 Package Contents

- 1 x 4-Port Gigabit Ethernet NIC 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 for Windows

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**”.



*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 Intel**” to start the installation.

3. Follow the instructions on screen to install the driver.

2.3 Driver Installation for Linux

1. Insert the provided CD into your CD-ROM drive.
2. Extract the compressed driver source file to a certain directory by the following command: (Please copy the driver file “igb-5.3.5.18.tar.gz” from the CD folder “.\Driver\Intel\PRO1000\LINUX” to a certain folder on hard drive)

```
# tar zxf igb-<x.x.x>.tar.gz
```
3. Change to the driver src directory, where <x.x.x> is the version number for the driver tar:

```
# cd igb-<x.x.x>/src/
```
4. Compile the driver module:

```
# make install
```

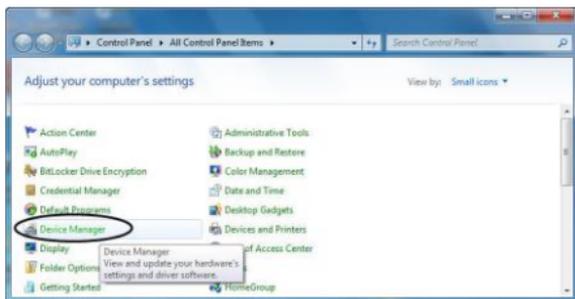
2.4 Hardware Verify

2.4.1 Verifying for Windows

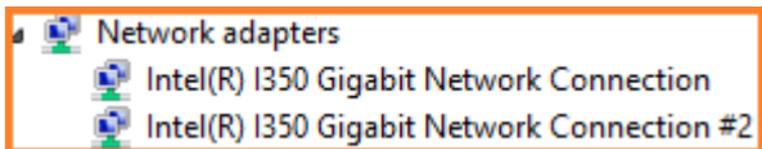
1. Click on the “**Device Manager**” tab in the Windows Control

Panel.

Start > Control Panel > Device Manager



2. Entry “**Network adapters**” item, and you can read “**Intel(R) I350 Gigabit Network Connection**” in the Device Manager.



2.4.2 Verifying for Linux

1. You can check whether the driver is loading by using following commands:

```
# lsmod | grep igb
```

```
# ifconfig -a
```

If there is a device name, ethX, shown on the monitor, the linux driver is load. Then, you can use the following command to activate the ethX.

```
# ifconfig ethX up, where X=0,1,2,...
```

Chapter 3: Troubleshooting Tips

- The computer can NOT detect the PCIe Dual Port Gigabit Server Adapter
 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 PCIe Dual Port Gigabit Server Adapter working or not.

- Computer failed to start after inserting the PCIe Dual Port Gigabit Server Adapter

Turn off the computer, remove the PCIe Dual Port Gigabit Server Adapter, 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.