PCIe 10G SFP+ Network Card

User Manual

Ver. 1.10

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Chapter 1: Introduction

1.1 Product Introduction

This PCIe 10G SPF+ Network Card is a cost-effective solution that delivers fast and reliable 10 Gbps network access at longer distances than copper-based networks. Using the SPP+ transceiver of your choice, you can connect your PCI Express-based server or workstation directly to your 10G fiber optic network.

1.2 Features

- Supports common 10GbE SFP+ optical and Direct Attached Copper modules
- Energy Efficient Ethernet (EEE)
- Up to 9K Jumbo Frames
- IP, TCP and UPD checksum offloading (IPv4, IPv6) capabilities
- Designed to meet PCI Express Specification Revision 3.0
- Eight lane (x8) PCI Express compatible with x8 and x16 PCI Express slots
- Designed to meet PCI Express Specification Revision 3.0
- Reduced CPU utilization and improved throughput

1.3 Requirements

Hardware

The following system specs are recommended minimum

- PCIe slot: Available 4-Lanes PCI-Express slot gen 2.0 or later
- Processor: Quad Core 3.0GHz or higher
- RAM: 4GB memory or higher

Software

Operating systems supported are (both 32 and 64 bits)

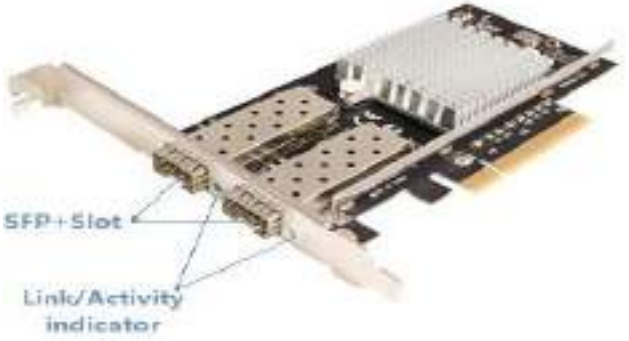
- Windows 7
- Windows Server 2008 R2
- Windows Server 2012
- Windows 8.1
- Windows Server 2016
- Windows 10
- Linux 2.6.24 or later
- VMware ESXi 5.x/6.0

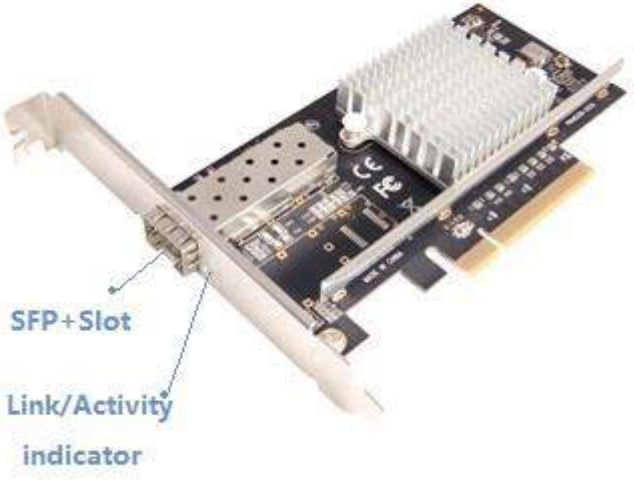
1.4 Package Contents

- 1 x PCIe 10G SFP+ Network Card
- 1 x Driver CD
- 1 x User Manual

Chapter 2: Getting Started

2.1 Hardware Layout





Link/Activity Indicator:

- When the LED is off, there is no link between the PCIe 10G SFP+ Network Card and the network
- When the LED is on, a link is established, but there is no traffic

on the network

- When the LED is flashing, there is traffic on the network to which the PCIe 10G SFP+ Network Card is connected

2.2 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.

2.3 Driver Installation

The following section shows you how to install PCIe 10G SFP+ Network Card driver on different operating systems.

2.3.1 Installation for Windows

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.

Please click **“PCIe Intel”** to start the installation.

Follow the instructions on screen to install the driver.

2.3.2 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 “ixgbe-x.x.x.tar.gz” from the CD folder “.\

Driver\Intel\PROXGB\LINUX" to a certain folder on hard drive)

tar xf ixgbe-x.x.x.tar.gz

3. Now, the driver source files should be extracted under the current directory. Executing the following command to compile the driver:

   # make

4. If the compilation is well, the ixgbe-x.x.x.ko will be created under the current directory.

5. If you want to use modprobe command to mount the driver, executing the following command to install the driver into your kernel:

   # make install

2.4 Verifying the installation

2.4.1 Verifying for Windows

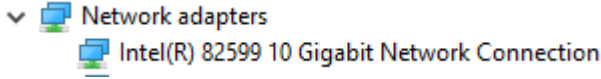
1. Click on the **"Device Manager"** tab in the Windows Control Panel.

Start > Control Panel > Device Manager

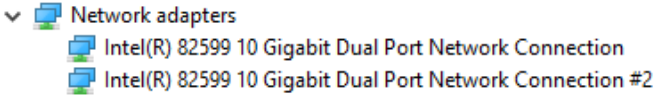


2. Entry **“Network adapters”** item, and you can read **“intele(R)82599 10Gigabit Dual Port Network Connection”** in the Device Manager.

1port



2port



2.4.2 Verifying for Linux

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

lsmod | grep

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,…