PCIe 40G QSFP+ Network Card

User Manual

Ver. 1.00

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Chapter 1: Introduction

1.1 Product Introduction

Get fast, high-bandwidth connectivity with this dual-port QSFP+ Network Interface Card. It connect QSFP+ slots to your server or workstation. The 40G NIC features an Intel® controller and provides redundant network links with reliable performance.

1.2 Features

- Supports common 40GbE SFPEnergy 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 (or higher) slots
- IEEE 802.1Q Tagged VLAN
- IEEE 802.3ba 40GBASE-SR4
- IEEE 802.3ba 40GBASE-LR4
- Intel PROSet Utility for Microsoft Device Manager

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 (64 bits Only)

- Windows Server 2008 R2
- Windows Server 2012
- Windows Server 2016
- Linux 2.6.24 to4.11.x or later

1.4 Package Contents

- 1 x PCIe 40G QSFP+ Network Card
- 1 x Driver CD
- 1 x User Manual

Chapter 2: Getting Started

2.1 Hardware Layout



1-Port



2-Port

Link/Activity Indicator:

- When the LED is off, there is no link between the PCIe 40G QSFP+ 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 40G QSFP+ 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 40G QSFP+ 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 "i40evf-x.x.x.gz" from the CD folder ".Driver\Intel\PRO40GB\Linux" to a certain folder on hard drive)

   # i40evf-x.x.x.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 i40evf-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

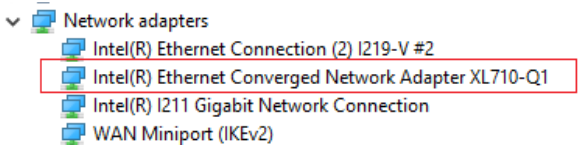
2.4.1 Verifying for Windows

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 **"Networks 40GbE Adapter"** 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 i40evf-x.x.x

   # 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,…