

PCIe 100G QSFP28 Ethernet Adapter

User Manual

Ver. 1.00

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Chapter 1: Introduction

1.1 Product Introduction

The high performance PCIe 100G QSFP28 Ethernet Adapters provide one and two QSFP28 ports for network connection of data rate up to 100Gbps. By using Intel's top of the class E810 Ethernet controller, the adapters are designed to optimize high-performance system workloads for Cloud and Communications.

1.2 Features

- PCIe Gen4 x16 form factor
- Supports standard and low-profile systems
- Provides one and two QSFP28 ports for multiple high-speed connections
- Supports 100G/50G/25G/10Gbps optics, AOC and DAC modules
- Various performance optimization technologies: ADQ, DDP, DPDK
- Supports IEEE1588 PTP v2 Precision Time Protocol
- Supports both RDMA iWARP and RoCEv2 for high-speed, low-latency connectivity to storage targets
- 1x QSFP28 (N-770) / 2x QSFP28 (N-780)

1.3 Requirements

Hardware

The following system specs are recommended minimum

- PCIe slot: Available 16-Lane PCI-Express slot Gen 4.0 or later
- Processor: Quad Core 3.0GHz or higher
- RAM: 4GB memory or higher

Software

Operating systems supported

- Windows 11
- Windows Server 2016/2019/2022
- Linux 3.16 or later

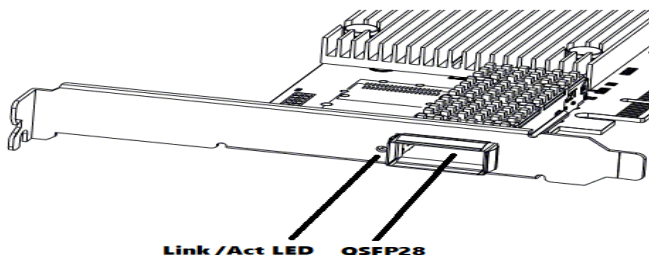
1.4 Package Contents

- 1 x PCIe 100G QSFP28 Ethernet Adapter
- 1 x User Manual

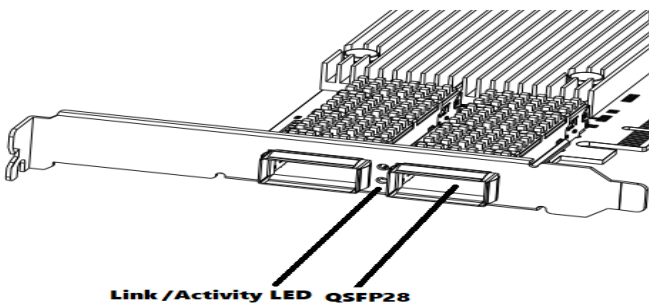
Chapter 2: Getting Started

2.1 Hardware Layout

2.1.1 Single Port



2.1.2 Dual Port



Link/Activity Indicator:

| LED | Description |
|---------------------------|--|
| Link /Activity LED | Indicates Network Card Activity: <ul style="list-style-type: none">• Solid Green = Network port is connected• Flashing Green = Network port is active• Off = No link |

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 PCIe 1/2-Port 100G QSFP28 Network Adapter driver on different operating systems.

2.2.1 Installation for Windows

1. Go to URL <http://www.sunrichtech.com.hk/>
2. Search N-770/N-780, download the driver.
3. Follow the on-screen instructions to finish installing the driver.

2.2.2 Installation for Linux

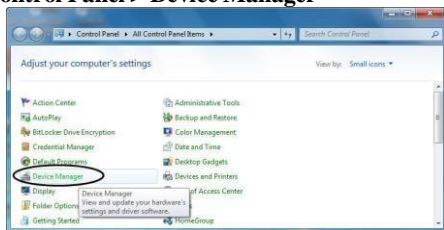
1. Go to URL <http://www.sunrichtech.com.hk/>
2. Search N-770/N-780, download the driver.
3. Follow Readme.txt which is in the driver folder to finish installing the driver.

2.3 Verifying the installation





2.3.1 Verifying for Windows

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

Start > Control Panel > Device Manager



2. Expand “**Network adapters**” item, and you can read “**Intel(R) E810-C Network Connection**” in the Device Manager.

- >  Mice and other pointing devices
- >  Monitors
- ✓  Network adapters
 -  Intel(R) Ethernet Controller E810-C for QSFP

2.3.2 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,...
```