PCIe 2-Port 10G SFP+ Network Adapter

User Manual

Ver. 1.00

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Chapter 1: Introduction

1.1 Product Introduction

The N-1270 PCIe 2-Port 10G SFP+ Network Adapter, powered by Intel's X710-BM2 chipset, is a high-performance solution designed for modern data centers and enterprise networks. Featuring two 10GbE SFP+ ports and a PCIe 3.0 x8 interface, it ensures seamless connectivity and efficient data transfer. This adapter supports advanced virtualization technologies like SR-IOV and VMDq, optimizing performance in virtualized environments. With support for network virtualization protocols such as VxLAN, NVGRE, and Geneve, it enhances scalability and flexibility. The adapter also integrates intelligent offloading capabilities, reducing CPU usage and improving overall efficiency. Compatible with major operating systems, it is ideal for applications requiring low latency, high throughput, and reliable connectivity, making it a versatile choice for IT professionals.

1.2 Features

- PCIe Gen3 x8 form factor
- Up to 9KB jumbo frame
- Supports low profile
- Supports PXE and UEFI preboot
- IP, TCP and UDP checksum offloading (IPv4, IPv6) capabilities

- DDP and DPDK performance optimization technologies
- Up to 128 SR-IOV Virtual Functions
- Supports various Virtualization offloading
- Virtual Machine Device Queues (VMDq) for improved network efficiency

1.3 Requirements

- Windows 11 (64-bit)
- Windows Server 2022/219/2016/2012
- Linux Kernel 5.8 or late

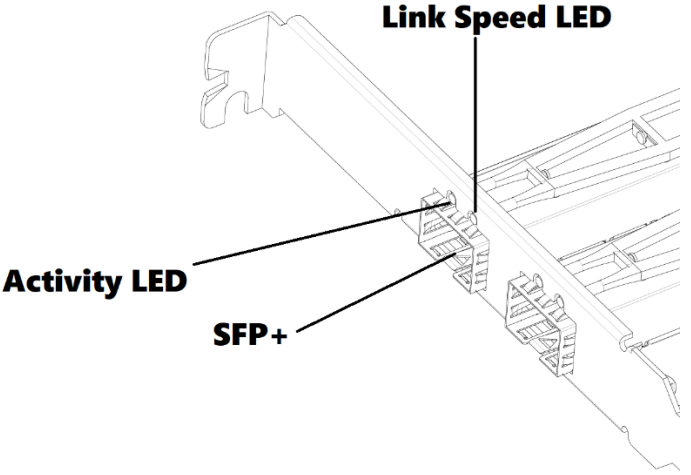
1.4 Product Diagram



1.5 Package Contents

- 1 x PCIe 2-Port 10G SFP+ Network Adapter
- 1 x User Manual

Chapter 2: Getting Started



2.1 Hardware Layout

LED Indicator:

LED	Description
Link Speed LED	Indicates Link speed: • Solid Green = 10 Gbps • Solid Amber = 1 Gbps
Activity LED	Indicates Network Card Activity: • Flashing Green = Network port is active

2.2 Hardware Installation

1. Power down 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 the PCIe 2-port 10G SFP+ Network Adapter driver on different operating systems.

2.3.1 Installation for Windows

1. Visit https://www.sunrichtech.com.hk/
2. Search for N-1270 and download the corresponding driver.
3. Follow the on-screen instructions to complete the installation.

2.3.2 Installation for Linux

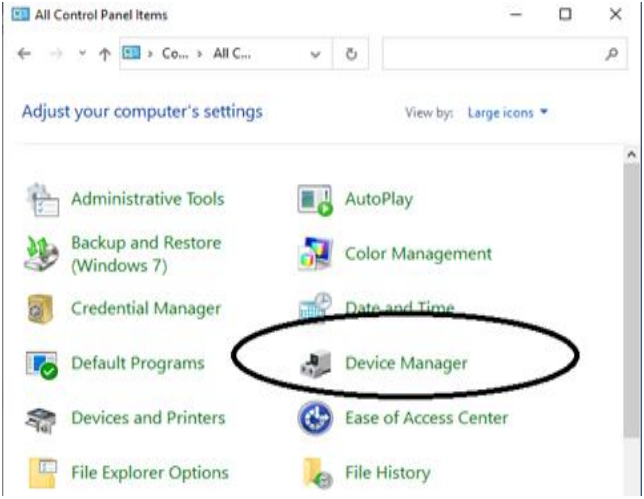
1. Visit https://www.sunrichtech.com.hk/
2. Search for N-1270 and download the corresponding driver.
3. Open the downloaded driver folder and follow the instructions in the Readme.txt to complete the installation.

2.4 Verifying the installation

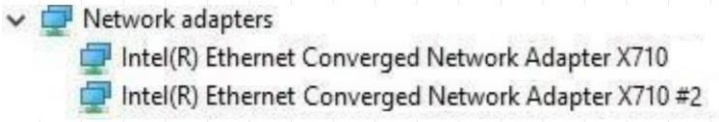
2.4.1 Verifying for Windows

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

Start > Control Panel > Device Manager



2. Expand **"Network adapters"** item, and you can read **"Intel(R)Ethernet Converged Network Adapter X710"** 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,…