

PCIe 10G 5-Speed Multi-Gigabit Network Adapter

User Manual

Ver. 2.00

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Chapter 1: Introduction

1.1 Product Introduction

The Intel PCIe 1/2-Port 10G 5-Speed Multi-Gigabit Network Adapter delivers high-performance connectivity for modern data centers and edge IoT deployments. Powered by the Intel E610-XAT controller, it supports PCIe 4.0 for ultra-fast throughput and reduced latency across 5-speed Ethernet (100M/1G/2.5G/5G/10G). Engineered for efficiency, the N-1310/N-1320 boasts low power consumption and advanced CPU offloading capabilities, optimizing system resources for demanding workloads. Built-in Root of Trust security ensures hardware-level protection, safeguarding sensitive data and infrastructure. The adapter also supports cutting-edge virtualization technologies, enabling scalable, multi-tenant environments with enhanced isolation and performance. Whether deployed in cloud-scale data centers or rugged edge environments, the N-1310/N-1320 offers robust, secure, and energy-efficient networking to meet the evolving demands of high-bandwidth applications. With its compact design

and enterprise-grade reliability, it's the ideal solution for organizations seeking future-ready connectivity without compromise.

1.2 Features

- PCIe Gen4 x4 form factor
- Backward compatible with multi-speed support for 10/5/2.5/1GbE, and 100BASE-TX
- Runs up to 10G at 100m Cat 6A cable and 5G at 100m Cat 5e/Cat 6 cable
- PCI Express (PCIe) 4.0
- Low power consumption
- Network Virtualization Overlay aware with stateless offload support for VXLAN, GENEVE, and NVGRE
- Intel® Ethernet Flow Director for hardware-based application traffic steering
- Excellent small packet performance for network appliances and Network Functions Virtualization (NFV)
- Device attestation and encrypted BMC communications with secure SPD

1.3 Requirements

- Windows 11
- Windows Server 2022/2025
- Linux kernel versions 2.6.x or newer
- VMware ESXi 7.0 or above
- FreeBSD
- Airflow Requirements: 100 LFM at 65°C

1.4 Product Diagram

N-1310



N-1320



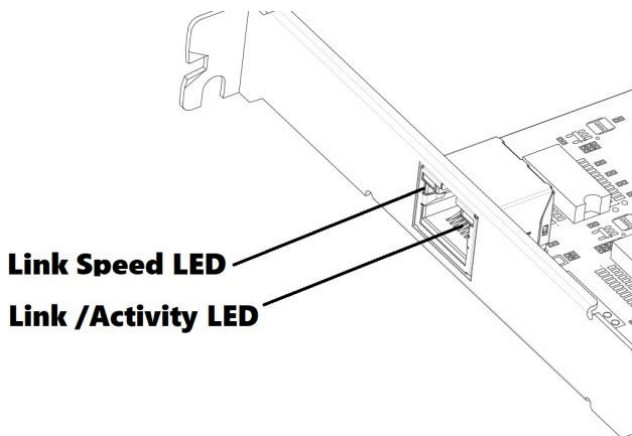
1.5 Package Contents

- 1 x PCIe 1-Port 10G 5-Speed Multi-Gigabit Network Adapter (N-1310), or 1 x PCIe 2-Port 10G 5-Speed Multi-Gigabit Network Adapter (N-1320)
- 1 x User Manual

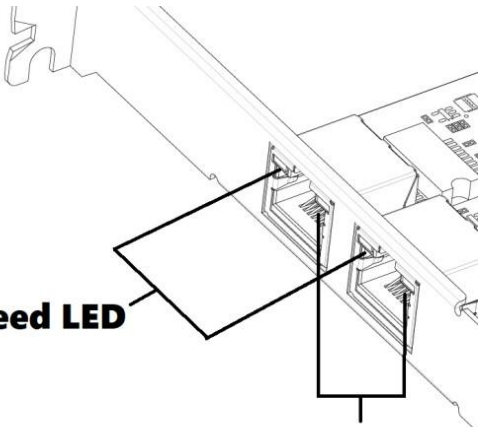
Chapter 2: Getting Started

2.1 Hardware Layout

2.1.1 Single Port (N-1310)



2.1.2 Dual Port (N-1320)



Link Speed LED

Link /Activity LED

LED Indicator:

LED	Description
Link Speed LED	Indicates Link speed: • Solid Green = 10 Gbps • Solid Amber = 5G/2.5G/1G/100Mbps
Link /Activity LED	Indicates Network Card Activity: • Solid Green = Network port is connected • Flashing Green = Network port is active

2.2 Hardware Installation

1. Shut down your computer and turn off the power.
2. Disconnect the power cord and remove the computer's cover.
3. Locate an available PCIe slot and remove its slot bracket.
4. Carefully align the card's bus connector with the PCIe slot on the motherboard. Press the card firmly into place until fully seated.
5. Fasten the card using the slot bracket's holding screw to ensure it is securely installed.
6. Replace the computer cover and reconnect the power cord.

2.3 Driver Installation

The following section shows you how to install PCIe 1/2-Port 10G 5-Speed Multi-Gigabit Network Adapter driver on different operating systems.

2.3.1 Installation for Windows

1. Visit <https://www.sunrichtech.com.hk/>
2. Search for “N-1310/N-1320”, and download the corresponding driver.
3. Follow the on-screen instructions to complete the installation.

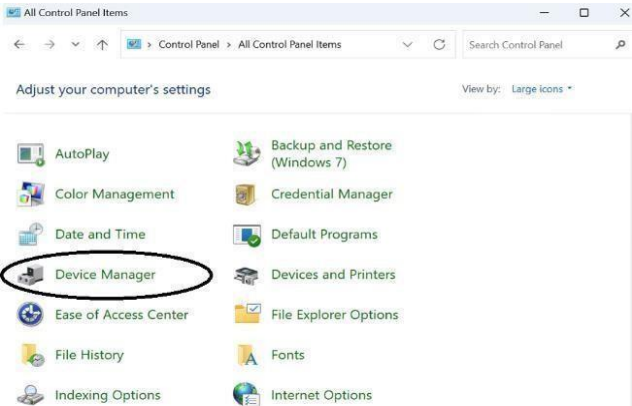
2.3.2 Installation for Linux

1. Visit <https://www.sunrichtech.com.hk/>
2. Search for N-1310/N-1320, and download the corresponding driver.
3. Open the downloaded driver folder and follow the instructions in Readme.txt file to complete the installation.

2.4 Verifying the installation

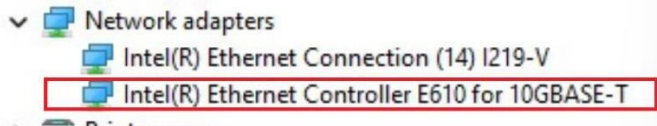
2.4.1 Verifying for Windows

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 “**Network connection card information**” in the Device Manager, as shown.

a. Single Port (N-1310):



b. Dual Port (N-1320):



2.4.2 Verifying for Linux

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

```
# lsmod | grep ixw
```

```
# 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,...
```