PCIe 2-Port 10G SFP+ Network Adapter

User Manual

Ver. 1.00

Contents:

Chapter 1: Introduction

1.1 Product Introduction

N-1080 Broadcom PCIe 2-Port 10G SFP+ Network Adapter leverages market-leading hardware acceleration technologies that feature high throughput and advanced flow processing to meet the performance and service demands of mega-scale data center networks. Features such as TruFlow™ increase VM density up to 50 percent, freeing more CPU cycles for additional virtual machines. On-chip tunneling protocol processing for Geneve, VXLAN, and NVGRE provides up to a 5X throughput increase while lowering CPU utilization up to 90 percent compared to software-only solutions. N-1080 also supports advanced networking technologies such as RoCE, SDN and NFV, to facilitate the management of data networks and to enable service provider solutions.

1.2 Features

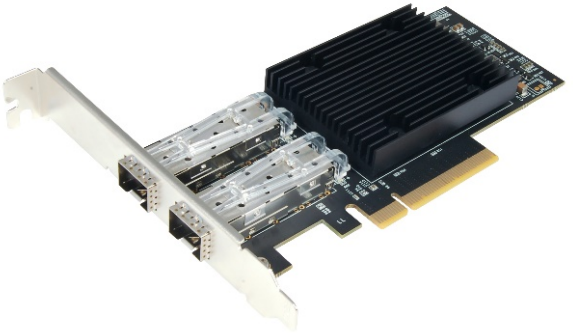
- PCIe Gen3 x8 host interface
- Up to 9KB jumbo frame
- Standards-compliant 10G dual-port SFP+ adapter with line-rate, full-duplex throughput
- NIC partitioning supporting 16 physical functions (PFs)

- TruFlow™ engine for intelligent flow processing to increase server VM density and accelerate vSwitch processing
- Industry's most secure PCIe NIC adapter solution leveraging Broadcom's BroadSAFE® technology to provide unparalleled platform security via Silicon Root of Trust
- Industry's most secure PCIe NIC adapter solution leveraging Broadcom's BroadSAFE® technology to provide unparalleled platform security via Silicon Root of Trust
- New end-to-end congestion avoidance and management to anticipate and eliminate congestion before it happens
- Support for advanced networking technologies including RoCE, SDN, NFV and virtualization

1.3 Requirements

- Windows 10/11 (64-bit)
- Linux Kernel 5.8 or later
- Airflow Requirements : 100 LFM at 55°C

1.4 Product Diagram

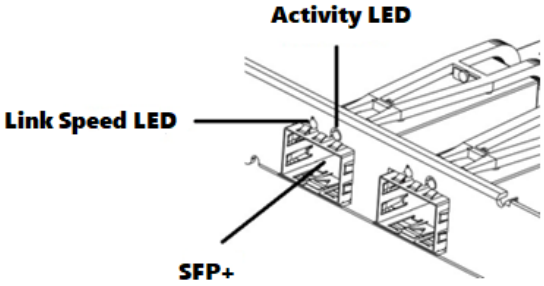


1.5 Package Contents

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

2.3.1 Installation for Windows

1. Login URL http://www.sunrichtech.com.hk/
2. Search N-1080, download the driver.
3. Follow the on-screen instructions to finish installing the driver.

2.3.2 Installation for Linux

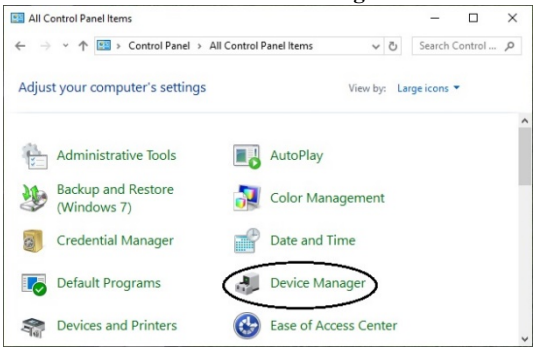
1. Login URL http://www.sunrichtech.com.hk/
2. Search N-1080, download the driver.
3. Follow the Readme.txt which is in the driver folder to finish installing the driver.

2.4 Verifying the installation

2.4.1 Verifying for Windows

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

   Start > Control Panel > Device Manager



2. Expand **"Network adapters"** item, and you can read **"Broadcom 57412 Dual-port 10Gb Ethernet PCIe 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 bnxt_en

   # 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,…