2-Port 10G SFP+ Network Adapter for OCP 3.0

User Manual

Ver. 1.00

Contents:

Chapter 1: Introduction

1.1 Product Introduction

N-1220 Broadcom 2-Port 10G SFP+ OCP 3.0 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-1220 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

- OCP 3.0 Form Factor
- PCIe Gen3 x8 host interface
- Compliant with OCP NIC 3.0 specification
- Supports 10G SFP+ transceivers

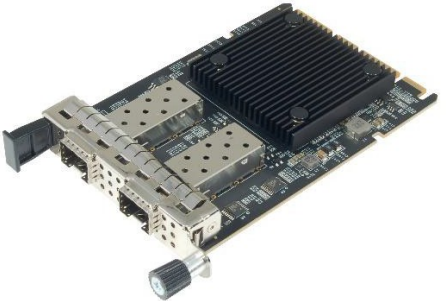
- Supports PXE and UEFI Preboot
- Standards-compliant 10G dual-port SFP+ adapter with line-rate, full-duplex throughput
- NIC partitioning supporting 16 physical functions (PFs)
- TruFlow™ engine for intelligent flow processing to increase server VM density and accelerate vSwitch processing
- Industry's most secure PCIe NIC adapter solution leveraging Broadcom's BroadSAFE® technology to provide unparalleled platform security via Silicon Root of Trust
- 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
- TruManage™ enhances server manageability and security for data center deployments

1.3 System Requirements

- Windows® Server 2022/2025
- Linux kernel versions 2.6 or newer
- VMware ESXi 7.0 or above
- FreeBSD
- Airflow Requirements: 100 LFM at 55°C

1.4 Product Diagram

N-1220



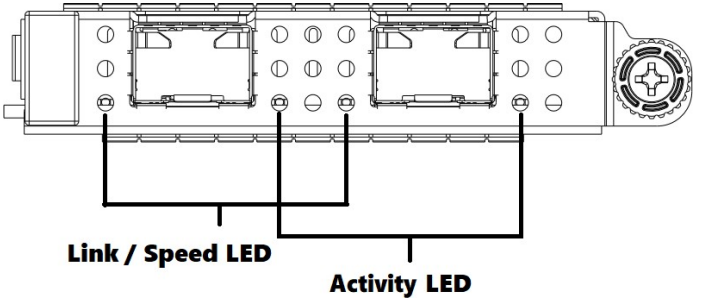
1.5 Package Contents

- 1 x 2-Port 10G SFP+ Network Adapter for OCP 3.0
- 1 x User Manual

Chapter 2: Getting Started

2.1 Hardware Layout

N-1220



Link/Activity Indicator:

LED	Description
Link / Speed LED	Indicates Link Speed: • Green=10 Gb/s; Amber=1 Gb/s • Not illuminated=No link
Activity LED	Indicates Network Card Activity: • Blinking = Active • Off= No activity

2.2 Hardware Installation

1. Power down your server.
2. Unplug the power cord.
3. Remove the OCP 3.0 adapter blank from the available OCP slot.
4. To install the OCP, carefully align the card's bus connector with the selected OCP slot on the server. Push the OCP firmlyinto the server.
5. Tighten the thumb screw to secure the card.
6. Reconnect the power cord.

2.3 Driver Installation

The following section shows you how to install 2-Port 10G OCP 3.0 Network Adapter driver on Windows operating systems.

2.3.1 Installation for Windows

1. Go to URL http://www.sunrichtech.com.hk/
2. Search N-1220, download the driver.
3. Follow the on-screen instructions to finish installing the driver.

2.3.2 Installation for Linux

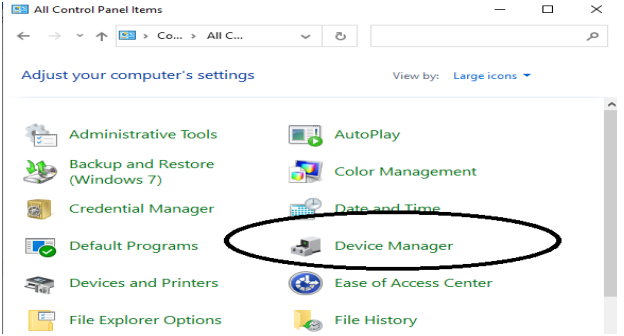
1. Go to URL http://www.sunrichtech.com.hk/
2. Search N-1220, download the driver.
3. Follow Readme.txt which is in the driver folder to finish installing the driver.

2.4 Hardware Verify

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 **"Broadcom 57412 Dual-port 10Gb OCP 3.0 Ethernet 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,…