

100G QSFP28 Network Adapter for OCP 3.0

User Manual

Ver. 1.00

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Chapter 1: Introduction

1.1 Product Introduction

The card is an OCP3.0 SFF 100G Ethernet network adapter, powered by the Intel chip (Single port E810-CAM1/ Dual port E810-CAM2). With hardware-accelerated packet processing extensions and application queuing technology, this card enables NVMe support for Fabric TCP, along with optional support for RDMA's iWARP and RoCEv2 capabilities. The application queuing technology function of the optical fiber network card ensures that each application can request its own queue, that is, the data between applications is no longer confused. With up to 100Gbps interface speed, making it ideal for data centers, cloud computing and high-throughput storage application. By utilizing program queues, this card reduces application delay and improve throughput.

1.2 Features

- OCP 3.0 Form Factor
- OCP3.0 SFF With Single Port/ Dual Port 100G QSFP28
- Intel E810-CAM1 (N-1020) or Intel E810-CAM2 (N-1030) Controller

- PCIe Gen4 x16 host interface
- Compliant with OCP NIC 3.0 specification
- Supports 4C+ connector
- Supports OCP 3.0 scan chain, FRU NVM and NC-SI
- OCP 3.0 SFF form factor with Pull Tab (Internal Lock option by demand)
- Supports 100GAUI-2/4 optics, and 100GBASE-CR2/CR4 DAC modules
- Intel Ethernet Flow Director – Application Device Queues (ADQ)
- Data Plan Development Kit
- Low Latency RDMA over Converged Ethernet (iWARP and RoCE v2)
- Jumbo Packet (9K Max)
- Dynamic Device Personalization (DDP)
- Supports UEFI preboot

1.3 Requirements

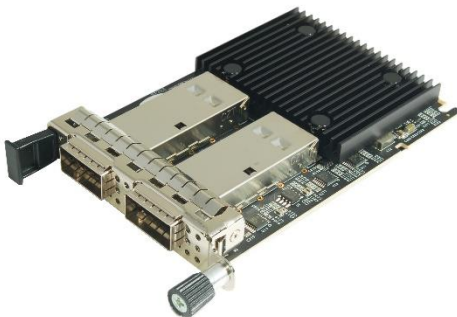
- Windows Server 2016/2019/2022
- Windows 10
- Linux kernel 4.x or later

1.4 Product Diagram

N-1020:



N-1030:



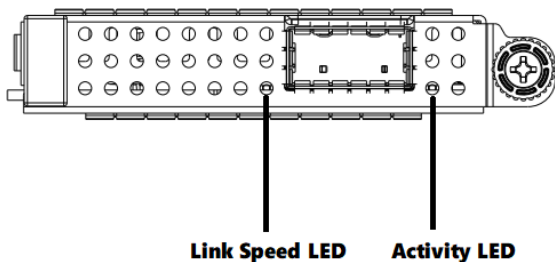
1.5 Package Contents

- 1 x 100G QSFP28 Network Adapter for OCP 3.0
- 1 x User Manual

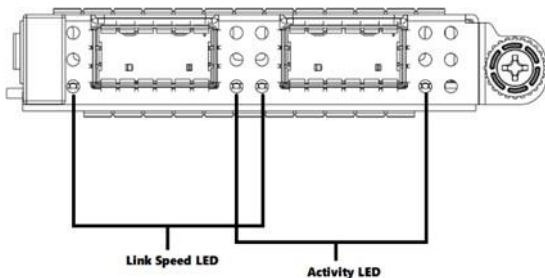
Chapter 2: Getting Started

2.1 Hardware Layout

N-1020:



N-1030:



Link/Activity Indicator:

LED	Description
Link Speed LED	Indicates Link Speed: • Green = 100Gbps • Amber = Less than 100Gbps • OFF = No Link
Activity LED	Indicates Network Card Activity: • Blinking Green = Network port is active • OFF = No Link

2.2 Hardware Installation

1. Turn off the power to your computer.
2. Unplug the power cord.
3. Remove the slot bracket from the available OCP slot.
4. To install the OCP, carefully align the card's bus connector with the selected OCP slot on the motherboard. Push the OCP firmly into the motherboard.
5. Reconnect the set screws of the OCP card bracket to secure the card.
6. Reconnect the power cord.

2.3 Driver Installation

The following section shows you how to install 100G QSFP28 Ethernet Adapter for OCP 3.0 driver on different operating systems.

2.3.1 Installation for Windows

1. Go to URL <http://www.sunrichtech.com.hk/>
2. Search N-1020/N-1030, 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-1020/N-1030, download the driver.

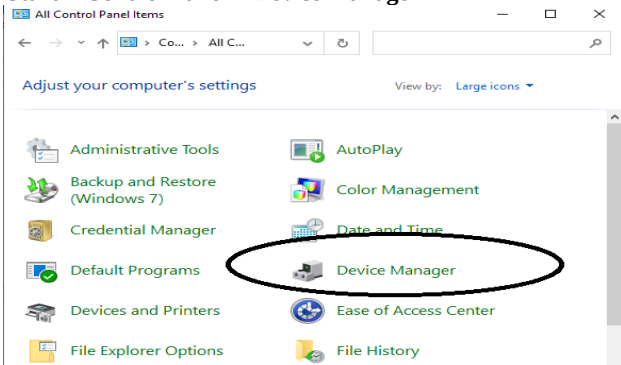
3. Follow Readme.txt which is in the driver folder to finish installing the driver.

2.4 Verifying the installation

2.4.1 Verifying for Windows

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

Start > Control Panel > Device Manager

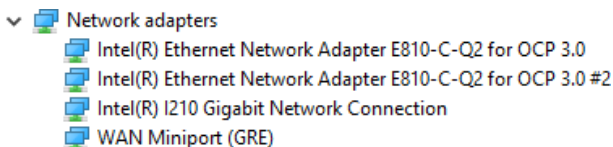


2. Expand “**Network adapters**” item, and you can read “**Intel(R)Ethernet Network Adapter E810-C-Q1 for OCP3.0**” in the Device Manager.



Or this for Dual Port model.

“Intel(R)Ethernet Network Adapter E810-C-Q2 for OCP3.0” 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,...
```