



## Downloading the Drivers

1. Verify that the system has a NVIDIA network adapter (HCA/NIC) installed.  
The following example shows a system with an installed NVIDIA HCA:

```
# lspci -v | grep Mellanox
86:00.0 Network controller [0207]: Mellanox Technologies MT27620 Family
Subsystem: Mellanox Technologies Device 0014
86:00.1 Network controller [0207]: Mellanox Technologies MT27620 Family
Subsystem: Mellanox Technologies Device 0014
```

**Note:** For ConnectX-5 Socket Direct adapters, use `ibdev2netdev` to display the installed card and the mapping of logical ports to physical ports. Example:

```
[root@gen-l-vrt-203 ~]# ibdev2netdev -v | grep -i MCX556M-ECAT-S25
0000:84:00.0 mlx5_10 (MT4119 - MCX556M-ECAT-S25SN) CX556M - ConnectX-5
QSFP28 fw 16.22.0228 port 1 (DOWN) ==> p2p1 (Down)
0000:84:00.1 mlx5_11 (MT4119 - MCX556M-ECAT-S25SN) CX556M - ConnectX-5
QSFP28 fw 16.22.0228 port 1 (DOWN) ==> p2p2 (Down)
0000:05:00.0 mlx5_2 (MT4119 - MCX556M-ECAT-S25SN) CX556M - ConnectX-5
QSFP28 fw 16.22.0228 port 1 (DOWN) ==> p5p1 (Down)
0000:05:00.1 mlx5_3 (MT4119 - MCX556M-ECAT-S25SN) CX556M - ConnectX-5
QSFP28 fw 16.22.0228 port 1 (DOWN) ==> p5p2 (Down)
```

### Note

- o Each PCI card of ConnectX-5 Socket Direct has a different PCI address. In the output example above, the first two rows indicate that one card is installed in a PCI slot with PCI Bus address 84 (hexadecimal), and PCI Device Number 00, and PCI Function Number 0 and 1. RoCE assigned `mlx5_10` as the logical port, which is the same as netdevice `p2p1`, and both are mapped to physical port of PCI function `0000:84:00.0`.
- o RoCE logical port `mlx5_2` of the second PCI card (PCI Bus address 05) and netdevice `p5p1` are mapped to physical

port of PCI function 0000:05:00.0, which is the same physical port of PCI function 0000:84:00.0. MT4119 is the PCI Device ID of the ConnectX-5 adapters family.

For more details, please refer to ConnectX-5 Socket Direct Hardware User Manual, available at [nvidia.com/en-us/networking/](https://nvidia.com/en-us/networking/).

2. Download the ISO image to your host.  
The image name has the format mlnx-en-<ver>-<OS label>-<CPU arch>.iso. It can also be downloaded from [nvidia.com/en-us/networking/](https://nvidia.com/en-us/networking/) Products Software Ethernet Drivers.
3. Use the md5sum utility to confirm the file integrity of your ISO image. Run the following command and compare the result to the value provided on the download page.

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