Understand the Usage and Limitations of CVR-QSFP-SFP10G Adapter

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Introduction

This document describes the usage and limitations of the CVR-QSFP-SFP10G adaptor on the C9600-LC-24C line card on the Catalyst 9600 platform.

Usage

C9600-LC-24C line card on the C9600 platform has 24 QSFP ports that support 40G & 100G optics. You cannot directly insert an SFP-based 10 Gbps or 1 Gbps optics on these ports.

CVR-QSFP-SFP10G adaptor provides the flexibility to use SFP based 10 Gbps or 1 Gbps optics on QSFP based ports of C9600-LC-24C line card on the C9600 platform.

List of 10 Gbps and 1 Gbps Optics Supported with CVR-QSFP-SFP10G Adaptor

Sl no.	Optics	Speed	Minimum Cisco IOS® XE Version
1	SFP-10G-SR	10 Gbps	16.11.1
2	SFP-10G-SR-S	10 Gbps	16.11.1
3	SFP-10G-LR	10 Gbps	16.11.1
4	SFP-10G-LR-S	10 Gbps	16.11.1
5	SFP-10G-ER	10 Gbps	16.11.1
6	SFP-10G-ER-S	10 Gbps	16.11.1

7	SFP-10G-ZR	10 Gbps	16.11.1
8	SFP-10G-ZR-S	10 Gbps	16.11.1
9	DWDM-SFP10G-xxx	10 Gbps	16.11.1
10	SFP-H10GB-CU1M	10 Gbps	16.11.1
11	SFP-H10GB-CU3M	10 Gbps	16.11.1
12	SFP-H10GB-CU5M	10 Gbps	16.11.1
13	GLC-T*	1 Gbps	16.12.2/17.1.1
14	GLC-TE*	1 Gbps	16.12.2/17.1.1
15	GLC-LH-SMD	1 Gbps	16.12.2/17.1.1
16	GLC-SX-MMD	1 Gbps	16.12.2/17.1.1

* 10 Mbps & 100 Mpbs speed with GLC-T & GLC-TE are not supported with CVR-QSFP-SFP10G adaptor. Only 1 Gbps speed with GLC-T & GLC-TE is supported with CVR-QSFP-SFP10G adaptor.

C9600-LC-24C Line Card Front Panel Port Layout and Port Mapping

1/25	3/27	5/29	7/31	9/33	11/35	13/37	15/39	17/41	19/43	21/45	23/47
2/26	4/28	6/30	8/32	10/34	12/36	14/38	16/40	18/42	20/44	22/46	24/48

These CLIs can be used to check the port mapping. Their operational speed mode and physical to virtual port numbering (for 100 Gbps interfaces):

show hw-module subslot x/0 port-group mapping

show hw-module subslot x/0 port-group operation-mode

show hw-module subslot x/0 port-group port-numbering

where x is the Linecard slot number.

Sample Output:

```
Switch#show hw-module subslot 1/0 port-group mapping
Port Group Mapping for slot 1

Port-Group Ports
1 Fo1/0/1, Fo1/0/2, Hu1/0/25
2 Fo1/0/3, Fo1/0/4, Hu1/0/27
```

```
3 Fo1/0/5, Fo1/0/6, Hu1/0/29
4 Fo1/0/7, Fo1/0/8, Hu1/0/31
5 Fo1/0/9, Fo1/0/10, Hu1/0/33
6 Fo1/0/11, Fo1/0/12, Hu1/0/35
7 Fo1/0/13, Fo1/0/14, Hu1/0/37
8 Fo1/0/15, Fo1/0/16, Hu1/0/39
9 Fo1/0/17, Fo1/0/18, Hu1/0/41
10 Fo1/0/19, Fo1/0/20, Hu1/0/43
11 Fo1/0/21, Fo1/0/22, Hu1/0/45
12 Fo1/0/23, Fo1/0/24, Hu1/0/47


Switch#show hw-module subslot 1/0 port-group operation-mode
Module 1 port group 1 is running in HundredGigabitEthernet mode
Module 1 port group 2 is running in FortyGigabitEthernet mode
Module 1 port group 3 is running in FortyGigabitEthernet mode
Module 1 port group 4 is running in FortyGigabitEthernet mode
Module 1 port group 5 is running in FortyGigabitEthernet mode
Module 1 port group 6 is running in FortyGigabitEthernet mode
Module 1 port group 7 is running in HundredGigabitEthernet mode
Module 1 port group 8 is running in HundredGigabitEthernet mode
Module 1 port group 9 is running in HundredGigabitEthernet mode
Module 1 port group 10 is running in HundredGigabitEthernet mode
Module 1 port group 11 is running in HundredGigabitEthernet mode
Module 1 port group 12 is running in HundredGigabitEthernet mode



Switch#show hw-module subslot 1/0 port-group port-numbering
Physical Port Mapping for slot 1

Physical-Port Mapped-Port
1 Hu1/0/25
2 Hu1/0/26
3 Hu1/0/27
4 Hu1/0/28
5 Hu1/0/29
6 Hu1/0/30
7 Hu1/0/31
8 Hu1/0/32
9 Hu1/0/33
10 Hu1/0/34
11 Hu1/0/35
12 Hu1/0/36
13 Hu1/0/37
14 Hu1/0/38
15 Hu1/0/39
16 Hu1/0/40
17 Hu1/0/41
18 Hu1/0/42
19 Hu1/0/43
20 Hu1/0/44
21 Hu1/0/45
22 Hu1/0/46
23 Hu1/0/47
24 Hu1/0/48
```

Limitations with CVR-QSFP-SFP10G Adaptor

- CVR-QSFP-SFP10G adapter must not be installed on an even-numbered port where the corresponding odd-numbered port has 40GE optics. For example, if port 1 has 40GE optics, CVR-QSFP-SFP10G must not be installed in port 2.

- CVR-QSFP-SFP10G adapter must not be installed on any port that has an enable config. For example, CVR-QSFP-SFP10G adapter must not be installed on a port configured to operate in 100GE.