

Cisco Server Link Interface Connector

Convert Two QSFP Ports into Eight SFP+ Ports

Product Description

The Cisco[®] server link interface connector (SLIC) remediates the deficiencies of breakout cables and also offers its own distinct advantages. The SLIC adapter breaks out a pair of higher-speed ports into eight lower-speed ports while supporting standard cabling and Small Form-Factor Pluggable (SFP)– and Enhanced SFP (SFP+)–compliant interfaces. Users can replace cables and optics for individual ports without affecting any other port. Furthermore, the SLIC adapter supports different types of interfaces within the same SLIC adapter.

The SLIC adapter delivers these features in a compact and reliable solution (Figure 1).

Figure 1. Cisco SLIC Adapter



Product Overview

The SLIC adapter is a passive mechanical device that plugs into two vertically aligned Quad Small Form-Factor Pluggable (QSFP) ports. It is designed to be compatible with the Cisco Nexus[®] 3000 and 9000 Series 1-rack-unit (1RU) top-of-rack (ToR) switches. The front of the SLIC adapter has slots for eight Enhanced SFP (SFP+) adapters rotated 90 degrees and stacked in a two-by-four configuration. The front also has an easily accessible pull-tab to eject the adapter from the switch, and it has two light pipes to indicate the switch port status. The height of the SLIC adapter is 1.5RU.

Features and Benefits

Table 1 summarizes the main features and benefits of the SLIC adapter.

Table 1. Features and Benefits

Feature	Benefit
Forward compatible	The SLIC adapter supports both 40- and 100-Gbps 4-lane optics. Thus, use with 40-Gbps Quad SFP+ (QSFP+) and 10-Gbps SFP+ translates into 100-Gbps QSFP28 and 25-Gbps SFP+ without the need to update the SLIC adapter itself. Data center cabling will not need to be changed for this conversion.
Uplink flexibility	The SLIC adapter enables the number of uplink ports to be modified based on data center traffic needs. More SLIC adapters can be plugged in or unplugged to obtain any oversubscription ratio.

Feature	Benefit
Space conscious	The SLIC adapter can extend above the top of a rack to further increase port density and more effectively use available rack space. The SLIC has a compact design and is only 1.5 rack units (1.5RU) tall. This design is comparable to a typical 2RU switch solution for the same port density.
Cost effective	The SLIC adapter helps lower both capital expenditures (CapEx) and operating expenses (OpEx) by reducing the number of rack units and individual switches required to achieve the desired port density. By decreasing power and cooling demands, the SLIC adapter helps data centers scale their capabilities at reduced cost.

Product Specifications

Switches that are compatible with the SLIC adapter can be mounted deeper into the rack, so that the ports on the SLIC adapter are flush with other rack equipment. The top four SFP+ ports on the adapter are associated with the upper QSFP port, and the bottom four ports are associated with the lower QSFP port. The port numbering is shown in Figure 2.

Figure 2 Port Numbering

1	3
2	4
1	3
2	4

Table 2 lists the specifications for the SLIC adapter.

Table 2. Specifications

Feature	Specification
Physical dimensions	<ul style="list-style-type: none"> Dimensions without pull tab (height x width x depth): 2.42 x 0.93 x 4.82 in. (6.15 x 2.36 x 12.24 cm) Extension from switch when installed: 2.75 in. (6.99 cm)
Accessories	Compatible accessory kit for recessed switch mounting: N3K-C3064-ACC-KIT

Note that the SLIC adapter should be used on the topmost switch in a rack because it stands higher than the switch.

Ordering Information

Table 3 provides ordering information for the SLIC adapter.

Table 3. Ordering information

Part Number	Description
CVR-2QSFP28-8SFP	SLIC Adapter

Transceiver Support

The SLIC adapter is compatible with any network switch that has the correct vertical QSFP spacing and software support. It can be used in every other vertical QSFP port pair (up to eight adapters in 32-port switches and up to nine adapters in 36-port switches). In addition, the SLIC adapter supports copper cables and low-power transceivers. All SFP ports of SLIC adapters can be populated by passive copper cables and 1000BASE-T transceivers for server connections. A total of 4 ports per SLIC and 32 ports of SLIC adapters in a single switch can be deployed with low-power optical transceivers and active cables.

Table 4 summarizes supported transceivers and cables.

Table 4. Switch Port Configuration with SLIC Adapter

Data Rate	Passive Copper Cables and 1000BASE-T Transceivers	Optical Transceivers and Active Cables
1 Gbps	1000BASE-T SFP	1000BASE-SX and -LH/LX SFP
10 Gbps	10-Gbps passive twinax (1 to 5m)	10-Gbps active cables and 10GBASE-SR SFP
25 Gbps	25-Gbps passive twinax (1 to 3m)	25-Gbps active cables and 25GBASE-SR SFP

Table 5 summarizes supported configurations for 32- and 36-port 1RU switches.

Table 5. Switch Port Configuration with SLIC Adapter

1RU Switch	Number of SLIC Adapters and SFP Ports	Number of Passive Copper Cables and 1000BASE-T Transceivers	Number of Optical Transceivers and Active Cables
32-port models	8 adapters and 64 ports	64	32
36-port models	9 adapters and 72 ports	72	32

For a complete list of transceivers supported per platform, visit the compatibility matrix pages:

- [Cisco 25-Gbps Compatibility Matrix](#)
- [Cisco 10-Gbps Compatibility Matrix](#)
- [Cisco 1-Gbps Compatibility Matrix](#)

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