HP LSWM124XG2Q (JH181A) & LSWM124XG2QL (JH180A) Interface Modules User Guide

Part number: 5998-7150
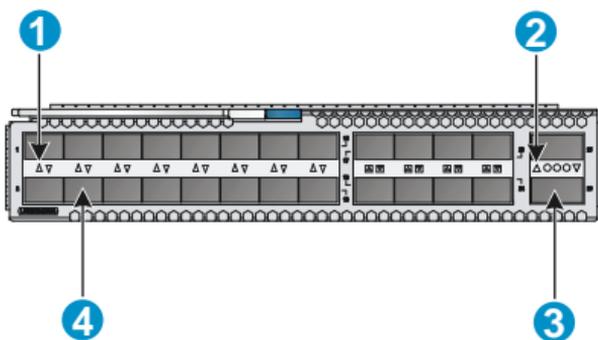
Introduction

Product code	HP description	Alias
JH181A	HP 5930 24-port SFP+ and 2-port QSFP+ with MacSec Module	LSWM124XG 2Q
JH180A	HP 5930 24-port SFP+ and 2-port QSFP+ Module	LSWM124XG 2QL

Overview

The LSWM124XG2Q and LSWM124XG2QL interface modules are similar in appearance. Each interface module provides 24 SFP+ ports and two QSFP+ ports. The SFP+ ports on the LSWM124XG2Q interface module support MACsec.

Figure 1 LSWM124XG2Q interface module front panel

(1) SFP+ port LED	(2) QSFP+ port LED
(3) QSFP+ port	(4) SFP+ port

> **NOTE:**
>
> The LSWM124XG2Q and LSWM124XG2QL interface modules are applicable only to the following switch models:
>
> - HP FlexFabric 5930-2Slot+2QSFP+ switches.
>
> - HP FlexFabric 5930-2Slot+2QSFP+ TAA-compliant switches.
>
> - HP FlexFabric 5930-4Slot switches.
>
> - HP FlexFabric 5930-4Slot TAA-compliant switches.
>
> The applicable switch models might change over time. For the most recent list of applicable switch models, contact HP Support or marketing staff.

SFP+ ports

The SFP+ ports on the LSWM124XG2Q and LSWM124XG2QL interface modules support the following transceiver modules and cables:

- SFP transceiver modules in Table 1 and Table 2.
- SFP+ transceiver modules in Table 3 and Table 4.
- SFP+ cables in Table 5.

Table 1 1000 Mbps SFP transceiver modules available for the SFP+ ports (1)

Product code	HP description	Central wavelength (nm)	Connector
JD089B	HP X120 1G SFP RJ45 T Transceiver	N/A	RJ-45
JD118B	HP X120 1G SFP LC SX Transceiver	850	LC
JD119B	HP X120 1G SFP LC LX Transceiver	1310	LC
JD061A	HP X125 1G SFP LC LH40 1310nm Transceiver	1310	LC
JD062A	HP X120 1G SFP LC LH40 1550nm Transceiver	1550	LC

Product code	HP description	Central wavelength (nm)	Connector
JD063B	HP X125 1G SFP LC LH70 Transceiver	1550	LC

Table 2 1000 Mbps SFP transceiver modules available for the SFP+ ports (2)

Product code	Cable/fiber diameter (μm)	Modal bandwidth (MHz × km)	Max transmission distance
JD089B	Category-5 twisted pair	N/A	100 m (328.08 ft)
JD118B	Multi-mode, 50/125	500	550 m (1804.46 ft)
	Multi-mode, 50/125	400	500 m (1640.42 ft)
	Multi-mode, 62.5/125	200	275 m (902.23 ft)
	Multi-mode, 62.5/125	160	220 m (721.78 ft)
JD119B	Single-mode, 9/125	N/A	10 km (6.21 miles)
	Multi-mode, 50/125	500 or 400	550 m (1804.46 ft)
	Multi-mode, 62.5/125	500	550 m (1804.46 ft)
JD061A	Single-mode, 9/125	N/A	40 km (24.86 miles)

Product code	Cable/fiber diameter (μm)	Modal bandwidth (MHz × km)	Max transmission distance
JD062A	Single-mode, 9/125	N/A	40 km (24.86 miles)
JD063B	Single-mode, 9/125	N/A	70 km (43.50 miles)

Table 3 10 G SFP+ transceiver modules available for the SFP+ ports (1)

Product code	HP description	Central wavelength (nm)	Connector
JD092B	HP X130 10G SFP+ LC SR Transceiver	850	LC
JD094B	HP X130 10G SFP+ LC LR Transceiver	1310	LC

Table 4 10 G SFP+ transceiver modules available for the SFP+ ports (2)

Product code	Fiber diameter (μm)	Modal bandwidth (MHz × km)	Max transmission distance
JD092B	Multi-mode, 50/125	2000	300 m (984.25 ft)
		500	82 m (269.03 ft)
		400	66 m (216.54 ft)
	Multi-mode, 62.5/125	200	33 m (108.27 ft)
		160	26 m (85.30 ft)
JD094B	Single-mode, 9/125	N/A	10 km (6.21 miles)

Table 5 SFP+ cables available for the SFP+ ports

Product code	HP description	Cable length	Data rate
JD095B	HP X240 10G SFP+ SFP+ 0.65m DA Cable	0.65 m (2.13 ft)	10.31 Gbps
JD096B	HP X240 10G SFP+ SFP+ 1.2m DA Cable	1.2 m (3.94 ft)	10.31 Gbps
JD097B	HP X240 10G SFP+ SFP+ 3m DA Cable	3 m (9.84 ft)	10.31 Gbps
JG081C	HP X240 10G SFP+ SFP+ 5m DA Cable	5 m (16.40 ft)	10.31 Gbps

NOTE:

HP recommends that you use HP transceiver modules and cables. The available transceiver modules and cables might change over time. For the most recent list of available transceiver modules and cables, contact HP Support or marketing staff.

For more information about HP SFP transceiver modules, SFP+ transceiver modules, and SFP+ cables, see *HP Comware-Based Devices Transceiver Modules User Guide*.

QSFP+ ports

The QSFP+ ports on the LSWM124XG2Q and LSWM124XG2QL interface modules support the following transceiver modules and cables:

- QSFP+ transceiver modules in Table 6 and Table 7.
- QSFP+ cables in Table 8.
- QSFP+ to SFP+ cables in Table 9.

Table 6 40G QSFP+ transceiver modules available for the QSFP+ ports (1)

Product code	HP description	Central wavelength (nm)	Connector
JG325B	HP X140 40G QSFP+ MPO SR4 Transceiver	850	MPO
JG709A	HP X140 40G QSFP+ MPO MM 850nm CSR4 300m Transceiver	850	MPO
JG661A	HP X140 40G QSFP+ LC LR4 SM 10km 1310nm Transceiver	Four lanes: • 1271 • 1291 • 1311 • 1331	LC

Table 7 40G QSFP+ transceiver modules available for the QSFP+ ports (2)

Product code	Cable/fiber diameter (µm)	Modal bandwidth (MHz × km)	Max transmission distance
JG325B	Multi-mode, 50/125	2000	100 m (328.08 ft)
		4700	150 m (492.13 ft)
JG709A	Multi-mode, 50/125	2000	300 m (984.25 ft)
		4700	400 m (1312.34 ft)
JG661A	Single-mode, 9/125	N/A	10 km (6.21 miles)

Table 8 40G QSFP+ cables available for the QSFP+ ports

Product code	HP description	Cable length	Data rate
JG326A	HP X240 40G QSFP+ QSFP+ 1m Direct Attach Copper Cable	1 m (3.28 ft)	40 Gbps

Product code	HP description	Cable length	Data rate
JG327A	HP X240 40G QSFP+ QSFP+ 3m Direct Attach Copper Cable	3 m (9.84 ft)	40 Gbps
JG328A	HP X240 40G QSFP+ QSFP+ 5m Direct Attach Copper Cable	5 m (16.40 ft)	40 Gbps

Table 9 40G QSFP+ to SFP+ cables available for the QSFP+ ports

Product code	HP description	Cable length	Data rate
JG329A	HP X240 40G QSFP+ to 4x10G SFP+ 1m Direct Attach Copper Splitter Cable	1 m (3.28 ft)	40 Gbps
JG330A	HP X240 40G QSFP+ to 4x10G SFP+ 3m Direct Attach Copper Splitter Cable	3 m (9.84 ft)	40 Gbps
JG331A	HP X240 40G QSFP+ to 4x10G SFP+ 5m Direct Attach Copper Splitter Cable	5 m (16.40 ft)	40 Gbps

NOTE:

HP recommends that you use HP transceiver modules and cables. The available transceiver modules and cables might change over time. For the most recent list of available transceiver modules and cables, contact HP Support or marketing staff.

For more information about QSFP+ transceiver modules, QSFP+ cables, and QSFP+ to SFP+ cables, see *HP Comware-Based Devices Transceiver Modules User Guide*.

LEDs

Table 10 describes SFP+ port LEDs. Table 11 describes QSFP+ port LEDs.

Table 10 SFP+ port LED description

LED status	Description
Steady green	A transceiver module or cable has been correctly installed. The port has a link and is operating at 10 Gbps.
Flashing green	The port is sending or receiving data at 10 Gbps.
Steady yellow	A transceiver module or cable has been correctly installed. The port has a link and is operating at 1 Gbps.
Flashing yellow	The port is sending or receiving data at 2 Gbps or 4 Gbps.
Off	No transceiver module or cable has been installed or no link is present on the port.

Table 11 QSFP+ port LED description

LED status	Description
Steady green	A transceiver module or cable has been correctly installed. The port has a link and is operating at 40 Gbps.
Flashing green	The port is sending or receiving data at 40 Gbps.
Steady yellow	A transceiver module or cable has been correctly installed. The port has a link and is operating at 10 Gbps.
Flashing yellow	The port is sending or receiving data at 10 Gbps.
Off	No transceiver module or cable has been installed or no link is present on the port.

NOTE:
The SFP+ port LEDs and QSFP+ port LEDs are not affected by the port mode switching button on your switch. For more information about the port mode switching button, see the installation guide of the switch.

Installing and removing an interface module

> **⚠ CAUTION:**
> - Before you install or remove an interface module, wear an ESD wrist strap and make sure the strap makes good skin contact and is reliably grounded.
> - To avoid device damage, do not use excessive force when you install or remove an interface module.

The installation and removal procedures are the same for the LSWM124XG2Q and LSWM124XG2QL interface modules. This section uses the LSWM124XG2Q interface module as an example.
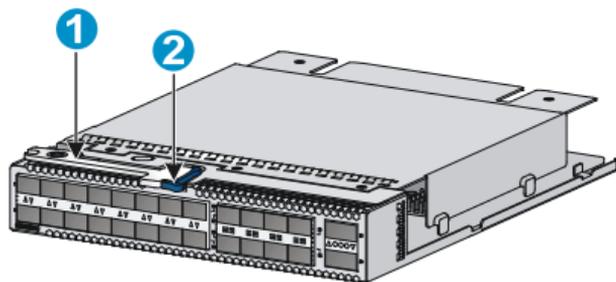
Installing an interface module

Before you install an interface module, remove the filler panel (if any) from the target slot. Keep the removed filler panel for future use.

To install an interface module:

1. Unpack the interface module.

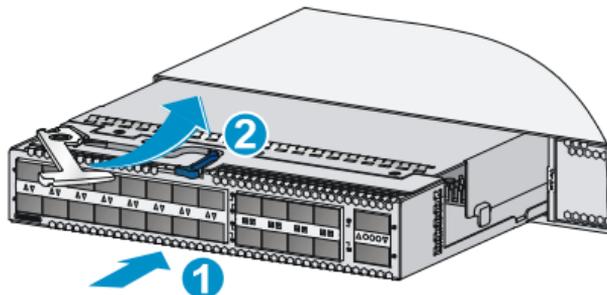**Figure 2 LSWM124XG2Q interface module**

(1) Ejector lever	(2) Latch

2. Press the latch on the interface module to release the ejector lever.
3. Insert the interface module slowly into the slot along the guide rails, as shown by callout 1 in Figure 3.
4. Rotate inward the ejector lever until the latch locks the ejector lever in place, as shown by callout 2 in Figure 3.

Figure 3 Installing an interface module
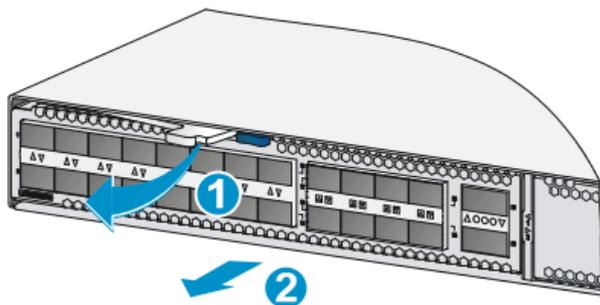

Removing an interface module

⚠ CAUTION:

- Before you remove an interface module, remove the cable from it to avoid cable damage.
- After removing an interface module, if no new interface module is to be installed, install the filler panel to prevent dust and ensure good ventilation in the device.

To remove an interface module:

1. Prepare an anti-static bag.
2. Press the latch to release the ejector lever.
3. Rotate outward the ejector lever, as shown by callout 1 in Figure 4.
4. Pull the interface module slowly out of the interface module slot, as shown by callout 2 in Figure 4.
5. Place the removed interface module in the anti-static bag.

Figure 4 Removing an interface module

Installing and removing SFP, SFP+, and QSFP+ transceiver modules and cables

For information about installing and removing SFP/SFP+ transceiver modules and SFP+ cables, see *Pluggable SFP/SFP+/XFP Transceiver Modules Installation Guide*.

For information about installing and removing QSFP+ transceiver modules and cables, see *QSFP+ Transceiver Modules/Cables Installation Guide*.

Verifying the installation

After the installation is complete, identify whether the interface module is operating correctly.

If the interface module fails to operate correctly, perform the following steps:

1. Reinstall it following the installation procedures described in this document.
2. If the problem persists, contact HP Support.

Documentation

To find related documents, browse to the Manuals page of the HP Business Support Center website:

http://www.hp.com/support/manuals

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