

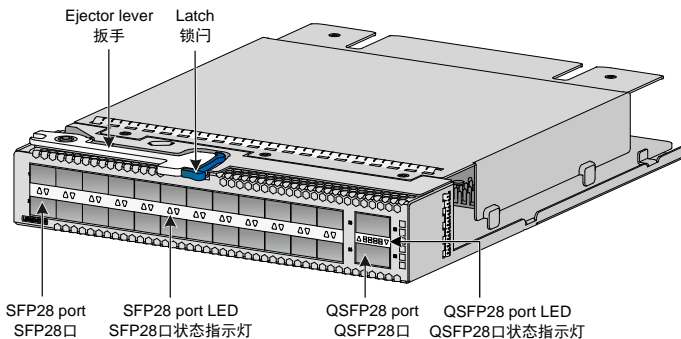
H3C LSWM124TG2H Interface Card User Manual-6PW107

H3C LSWM124TG2H接口模块扩展卡 用户手册-6PW107

BOM: 3101A0LL

Overview 接口模块扩展卡简介

- The LSWM124TG2H interface card provides 24 SFP28 ports and two QSFP28 ports. LSWM124TG2H接口模块扩展卡对外提供24个SFP28口和2个QSFP28口。



Ports 接口

- You can install QSFP28 modules, QSFP28 cables, QSFP28 to SFP28 cables, QSFP+ modules, QSFP+ cables, and QSFP+ to SFP+ cables in the QSFP28 ports. QSFP28口可选配QSFP28模块、QSFP28线缆、QSFP28 to SFP28电缆、QSFP+模块、QSFP+线缆和QSFP+ to SFP+电缆。
- You can install SFP28 modules, SFP28 cables, SFP+ modules, and SFP+ cables in the SFP28 ports. SFP28口可选配SFP28模块、SFP28电缆、SFP+模块和SFP+线缆。
- As a best practice, use H3C transceiver modules and cables for the QSFP28 ports and SFP28 ports. 推荐您使用H3C公司的光模块和线缆。
- The transceiver module and cable types supported by an interface card vary by device model. For more information, see the installation guide or contact H3C Support or marketing staff. 在具体产品上，接口模块扩展卡支持的光模块/线缆的种类可能有所不同，若您需要准确的支持信息，请查询产品安装手册或咨询H3C公司市场人员或技术支持人员。
- For H3C transceiver modules and cables specifications, see *H3C Transceiver Modules User Guide* at www.h3c.com. 光模块和线缆的具体规格，请您参见H3C网站发布的《H3C光模块手册》。

Transceiver modules available for the QSFP28 ports QSFP28 口支持的光模块					
Model 对外型号	Central wavelength 中心波长 (nm)	Connector 接口连接器	Cable specifications 接口线缆规格	Modal bandwidth 模式带宽 (MHz*km)	Max transmission distance 最大传输距离
QSFP28 transceiver modules QSFP28 光模块					
QSFP-100G-ER4L-WDM1300	Four lanes 四条通道: <ul style="list-style-type: none"> • 1294.53 to 1296.59 • 1299.02 to 1301.09 • 1303.54 to 1305.63 • 1308.09 to 1310.19 	LC	9/125μm SMF	N/A	40 km (24.85 miles)
QSFP-100G-SR4-MM850	850	MPO (PC polished, 12-fiber) MPO (PC 端面, 12芯)	50/125μm MFF	2000	70 m (229.66 ft)
				4700	100 m (328.08 ft)
QSFP-100G-PSM4-SM1310	1295 to 1325	MPO (APC polished, 12-fiber) MPO (APC 端面, 12芯)	9/125μm SMF	N/A	500 m (1640.42 ft)
QSFP-100G-LR4-WDM1300	Four lanes 四条通道: <ul style="list-style-type: none"> • 1295 • 1300 • 1304 • 1309 	LC	9/125μm SMF	N/A	10 km (6.21 miles)
QSFP-100G-LR4L-WDM1300	Four lanes 四条通道: <ul style="list-style-type: none"> • 1264.5 to 1277.5 • 1284.5 to 1297.5 • 1304.5 to 1317.5 • 1324.5 to 1337.5 	LC	9/125μm SMF	N/A	2 km (1.24 miles)

Transceiver modules available for the QSFP28 ports QSFP28 口支持的光模块					
Model 对外型号	Central wavelength 中心波长 (nm)	Connector 接口连接器	Cable specifications 接口线缆规格	Modal bandwidth 模式带宽 (MHz*km)	Max transmission distance 最大传输距离
QSFP-100G-SWDM4-MM850	Four lanes: 四条通道: • 850 • 880 • 910 • 940	LC	50/125μm MFF	2000	75 m (246.06 ft)
				4700	100 m (328.08 ft)
QSFP+ transceiver modules QSFP+光模块					
QSFP-40G-SR4-MM850	850	MPO (PC polished, 12-fiber) MPO (PC 端面, 12芯)	50/125μm MFF	2000	100 m (328.08 ft)
				4700	150 m (492.12 ft)
QSFP-40G-CR4-MM850	850	MPO (PC polished, 12-fiber) MPO (PC 端面, 12芯)	50/125μm MFF	2000	300 m (984.25 ft)
				4700	400 m (1312.33 ft)
QSFP-40G-LR4-PSM1310	1310	MPO (APC polished, 12-fiber) MPO (APC 端面, 12芯)	9/125μm SMF	N/A	10 km (6.21 miles)
QSFP-40G-BIDI-SR-MM850	850	LC	50/125μm MFF	2000	100 m (328.08 ft)
				4700	150 m (492.12 ft)
QSFP-40G-LR4-WDM1300	Four lanes 四条通道: • 1271 • 1291 • 1311 • 1331	LC	9/125μm SMF	N/A	10 km (6.21 miles)
QSFP-40G-LR4L-WDM1300					2 km (1.24 miles)

Cables available for the QSFP28 ports QSFP28 口支持的线缆			
Model 对外型号	Cable length 线缆长度	Data rate 传输速率	Cable type 线缆类型
QSFP28 cables QSFP28 线缆			
QSFP-100G-D-CAB-1M	1 m (3.28 ft)	100 Gbps	QSFP28 copper cable QSFP28电缆
QSFP-100G-D-CAB-3M	3 m (9.84 ft)		
QSFP-100G-D-CAB-5M	5 m (16.40 ft)		
QSFP-100G-D-AOC-7M	7 m (22.97 ft)	100 Gbps	QSFP28 fiber cable QSFP28光缆
QSFP-100G-D-AOC-10M	10 m (32.81 ft)		
QSFP-100G-D-AOC-20M	20 m (65.62 ft)		

Cables available for the QSFP28 ports QSFP28 口支持的线缆			
Model 对外型号	Cable length 线缆长度	Data rate 传输速率	Cable type 线缆类型
QSFP28 to SFP28 cables QSFP28 to SFP28 线缆			
QSFP-100G-4SFP-25G-CAB-1M	1 m (3.28 ft)	100 Gbps	QSFP28 to SFP28 copper cable QSFP28 to SFP28 电缆
QSFP-100G-4SFP-25G-CAB-3M	3 m (9.84 ft)		
QSFP+ cables QSFP+ 线缆			
LSWM1QSTK0	1 m (3.28 ft)	40 Gbps	QSFP+ copper cable QSFP+ 电缆
LSWM1QSTK1	3 m (9.84 ft)		
LSWM1QSTK2	5 m (16.40 ft)		
QSFP-40G-D-AOC-7M	7 m (22.97 ft)	40 Gbps	QSFP+ fiber cable QSFP+ 光缆
QSFP-40G-D-AOC-10M	10 m (32.81 ft)		
QSFP-40G-D-AOC-20M	20 m (65.62 ft)		
QSFP+ to SFP+ cables QSFP+ to SFP+ 线缆			
LSWM1QSTK3	1 m (3.28 ft)	40 Gbps	QSFP+ to SFP+ copper cable QSFP+ to SFP+ 电缆
LSWM1QSTK4	3 m (9.84 ft)		
LSWM1QSTK5	5 m (16.40 ft)		

Transceiver modules available for the SFP28 ports SFP28 口支持的光模块					
Model 对外型号	Central wavelength 中心波长	Connector 接口连接器	Cable specifications 接口线缆规格	Modal bandwidth 模式带宽 (MHz*km)	Max transmission distance 最大传输距离
SFP28 transceiver modules SFP28 光模块					
SFP-25 G-SR-M M850	850 nm	LC	50/125μm MFF	2000	FEC negotiation disabled: 30 m (98.43 ft) FEC negotiation enabled: 70 m (229.66 ft) 关闭FEC协商功能时: 30 m 开启FEC协商功能时: 70 m
				4700	FEC negotiation disabled: 40 m (131.23 ft) FEC negotiation enabled: 100 m (328.08 ft) 关闭FEC协商功能时: 40 m 开启FEC协商功能时: 100 m
For more information about FEC negotiation, see Ethernet interfaces in <i>Layer 2 –LAN Switching Configuration Guide</i> .有关FEC协商功能的详细介绍,“二层技术-以太网交换配置指导”中的“以太网接口”。					

Transceiver modules available for the SFP28 ports SFP28 口支持的光模块					
Model 对外型号	Central wavelength 中心波长	Connector 接口连接器	Cable specifications 接口线缆规格	Modal bandwidth 模式带宽 (MHz*km)	Max transmission distance 最大传输距离
SFP+ transceiver modules SFP+光模块					
SFP-XG-SX-MM8 50-A	850 nm	LC	50/125μm MFF	2000	300 m (984.25 ft)
				500	82 m (269.03 ft)
				400	66 m (216.54 ft)
			62.5/125μm MFF	200	33 m (108.27 ft)
				160	26 m (85.30 ft)
SFP-XG-LX-SM1 310	1310 nm	LC	9/125μm SMF	N/A	10 km (6.21 miles)

Cables available for the SFP28 ports SFP28 口支持的线缆			
Model 对外型号	Cable length 线缆长度	Data rate 传输速率	Cable type 线缆类型
SFP28 cables SFP28 线缆			
SFP-25G-D-CAB-1M	1 m (3.28 ft)	25 Gbps	SFP28 copper cable SFP28 电缆
SFP-25G-D-CAB-3M	3 m (9.84 ft)		
SFP+ cables SFP+ 线缆			
LSWM1STK	0.65 m (2.13 ft)	10 Gbps	SFP+ copper cable SFP+ 电缆
LSWM2STK	1.2 m (3.94 ft)		
LSWM3STK	3 m (9.84 ft)		
LSTM1STK	5 m (16.40 ft)		
SFP-XG-D-AOC-7M	7 m (22.97 ft)	10 Gbps	SFP+ fiber cable SFP+ 光缆
SFP-XG-D-AOC-10M	10 m (32.81 ft)		
SFP-XG-D-AOC-20M	20 m (65.62 ft)		

LEDs 接口状态指示灯



For an LSWM124TG2H interface card installed on a service module of an S12500X-AF switch, its port LEDs are in green when the ports are operating correctly and they do not indicate the port speed. 接口模块扩展卡通过带有扩展卡插槽的业务板安装在S12500X-AF 系列交换机时，扩展卡业务端口的指示灯颜色不再区分速率，指示灯显示为绿色。


QSFP28 port LED QSFP28 口状态指示灯	
LED Status 指示灯状态	Description 指示灯含义
Steady green 绿色常亮	A transceiver module is installed in the port. The port is operating at 100 Gbps, and a link is present on the port. 模块已安装，端口工作在100G模式下，并且端口Link Up

QSFP28 port LED QSFP28 口状态指示灯	
LED Status 指示灯状态	Description 指示灯含义
Flashing green 绿色闪烁	The port is sending or receiving data at 100 Gbps. 端口工作在100G模式下，正在接收或发送数据
Steady yellow 黄色常亮	A transceiver module is installed in the port. The port is operating at 10/25/40 Gbps, and a link is present on the port. 模块已安装，端口工作在10G、25G或40G模式下，并且端口Link Up
Flashing yellow (3 Hz) 黄色闪烁(3Hz)	The port is sending or receiving data at 10/25/40 Gbps. 端口工作在10G、25G或40G模式下，正在接收或发送数据
Off 灯灭	No transceiver module is installed in the port, or no link is present on the port. 模块没有安装或端口没有Link Up

SFP28 port LED SFP28 口状态指示灯	
LED Status 指示灯状态	Description 指示灯含义
Steady green 绿色常亮	A transceiver module is installed in the port. The port is operating at 25 Gbps, and a link is present on the port. 模块已安装，端口工作在25G模式下，并且端口Link Up
Flashing green 绿色闪烁	The port is sending or receiving data at 25 Gbps. 端口工作在25G模式下，正在接收或发送数据
Steady yellow 黄色常亮	A transceiver module is installed in the port. The port is operating at 10 Gbps, and a link is present on the port. 模块已安装，端口工作在10G模式下，并且端口Link Up
Flashing yellow (3 Hz) 黄色闪烁(3Hz)	The port is sending or receiving data at 10 Gbps. 端口工作在10G模式下，正在接收或发送数据
Off 灯灭	No transceiver module is installed in the port, or no link is present on the port. 模块没有安装或端口没有Link Up

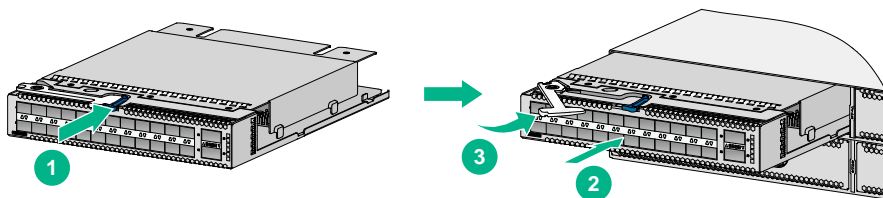
Installing and removing the card 接口模块扩展卡的安装和拆卸

1 Safety precautions 安全注意事项

-  Before you install or remove the card, wear an ESD wrist strap and make sure the strap makes good skin contact and is reliably grounded.
在安装和拆卸过程中，操作者需自行准备并佩戴防静电腕带，请确保防静电腕带已经正确接地并与皮肤良好接触。
- To avoid device damage, do not use excessive force when you install or remove the card. 在安装和拆卸过程中，请不要用力过猛，以免对设备器件造成损坏。

2 Installing the card 接口模块扩展卡的安装

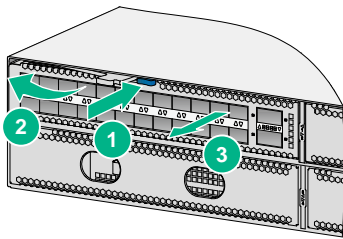
- Remove the filler panel (if any) from the target slot before installing the card. Keep the removed filler panel secure for future use. 如果交换机的接口模块扩展卡插槽上装有假面板，请先将假面板拆除再进行接口模块扩展卡的安装，并请妥善保存拆卸下的假面板以备将来使用。
- The LSWM124TG2H interface card is hot swappable. However, do not install or remove it during the startup of the switch. 接口模块扩展卡在适配的产品上均支持热插拔，但是请勿在交换机启动过程中安装或拆卸扩展卡。



- ① Unpack the card. Press the latch on the card to release the ejector lever.
从包装袋中取出接口模块扩展卡，并按压锁门使扳手弹出。
- ② Insert the card slowly into the slot along the guide rails.
将接口模块扩展卡沿着插槽导轨水平缓慢地推进接口模块扩展卡插槽。
- ③ Rotate inward the ejector lever until the latch locks the ejector lever in place.
将扳手用力向内扣合，此时锁门自动卡住扳手。

3 Removing the card 接口模块扩展卡的拆卸

- ⚠ • To avoid cable damage, remove the cables from the card before removing the card. 在拆卸接口模块扩展卡之前，推荐您先将接口模块扩展卡上的线缆拔出，以免在拆卸过程中对线缆造成损坏。
- If you are not to install a new card after removing the original one, install a filler panel in the slot to prevent dust and ensure good ventilation in the device. 若接口模块扩展卡拆卸完成后无须安装新的接口模块扩展卡，请您及时安装假面板，以保证设备的良好通风散热并防止灰尘进入设备。
- Place the removed card on an anti-static mat or in an anti-static bag. 请将拆卸下来的接口模块扩展卡及时放置到防静电垫子上或防静电袋中。



- ① Press the latch on the card to release the ejector lever.
按压接口模块扩展卡上的锁门使扳手弹出。
- ② Hold the ejector lever to pull the card outward until the card is disconnected from the connectors. 拉动扳手使接口模块扩展卡与设备内连接器端子脱离。
- ③ Hold the card with both hands and take it out slowly. 用双手水平缓慢地取出接口模块扩展卡。

4 Installing transceiver modules and cables 光模块或线缆的安装与拆卸

For the installation and removal procedure for QSFP28 modules, QSFP28 cables, QSFP28 to SFP28 cables, QSFP+ modules, QSFP+ cables, QSFP+ to SFP+ cables, SFP28 modules, SFP28 cables, SFP+ modules, and SFP+ cables, see *H3C Transceiver Modules and Network Cables Installation Guide* at www.h3c.com.

对于QSFP28模块、QSFP28线缆、QSFP28 to SFP28电缆、QSFP+模块、QSFP+线缆、QSFP+ to SFP+电缆、SFP28模块、SFP28电缆、SFP+模块、SFP+线缆的安装与拆卸，请您参见H3C网站发布的《H3C光模块及线缆安装指导》中的相关内容。

Verifying the installation 安装完成后的检查

After the installation is complete, determine whether the card is operating correctly. If the card fails to operate correctly, perform the following steps:

- Reinstall the card following the installation procedures described in this document.
- If the issue persists, contact H3C Support.

全部安装完成后，在交换机运行正常的情况下，若发现接口模块扩展卡无法正常工作：

- 您可以按照手册中介绍的方法重新安装接口模块扩展卡。
- 如果重新安装后，接口模块扩展卡仍无法正常工作，请您联系H3C技术支持人员。

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