H3C S6850 & S9850 Switch Series
Hardware Information and Specifications

Document version: 6W104-20240912

Contents

1 Product models and technical specifications

Product models

The H3C S6850 & S9850 switch series include the following models:

Series	Product model	Product code
H3C S6850 series	S6850-56HF	LS-6850-56HF LS-6850-56HF-H1 LS-6850-56HF-H3
	S6850-56HF-SAN	LS-6850-56HF-SAN
	S6850-2C	LS-6850-2C LS-6850-2C-H1
H3C S9850 series	S9850-4C	LS-9850-4C LS-9850-4C-H1
	S9850-32H	LS-9850-32H-A LS-9850-32H-H1

To identify the product code of your switch, use the product barcode on its rear panel.

In this document, if these switches are referred to by their switch model, the information applies to all the product codes. If these switches are referred to by a product code, the information applies only to the switches with that product code. For example, the S6850-56HF switch model is available with the LS-6850-56HF, LS-6850-56HF-H1, or LS-6850-56HF-H3 product code. If the switch is referred to as the S6850-56HF switch, the information applies to the S6850-56HF switch with either of the codes. If the switch is referred to as the S6850-56HF (LS-6850-56HF) or LS-6850-56HF switch, the information applies only to the S6850-56HF switch with the LS-6850-56HF product code.

NOTE:

- To obtain the purchase information, see the product data sheet at https://www.h3c.com/en/Products_and_Solutions/InterConnect/Switches/ and pay attention to the switch product lifecycle management announcement at https://www.h3c.com/en/Support/Policy_Dynamics/Management_Strategy/Products_End_of_Life_Announcement/Switches/.
- For information about product and software compatibility, see the release notes.

Technical specifications

Table1-1 H3C S6850 switch series technical specifications

Item	LS-6850-56HF/LS-6850-56HF-H1/S6850-56HF-SAN	LS-6850-56HF-H3	S6850-2C
Physical specifications			
Dimensions (H × W × D)	Without package: 43.6 × 440 × 460 mm (1.72 × 17.32 × 18.11 in) With package: 150 × 718 × 556 mm (5.91 × 28.27 × 21.89 in)	Without package: 44 × 440 × 400 mm (1.73 × 17.32 × 15.75 in) With package: 150 × 658 × 556 mm (5.91 × 25.91 × 21.89 in)	Without package: 44.2 × 440 × 660 mm (1.74 × 17.32 × 25.98 in) With package: 150 × 812 × 570 mm (5.91 × 31.97 × 22.44 in)
Weight (with all power modules, fans, and expander modules installed)	≤ 15 kg (33.07 lb)	≤ 10 kg (22.05 lb)	≤ 16 kg (35.27 lb)
Technical specifications			
Processor	LS-6850-56HF: 4 cores, 2.4 GHz LS-6850-56HF-H1: 4 cores, 2.2 GHz S6850-56HF-SAN: 8 cores, 2.2 GHz	4 cores, 2.2 GHz	4 cores, 2.4 GHz
DRAM Memory	LS-6850-56HF: 8 GB LS-6850-56HF-H1: 4 GB S6850-56HF-SAN: 8 GB	8 GB	8 GB
NOR Flash	32 MB *2 (primary and backup)	32 MB *2 (primary and backup)	32 MB *2 (primary and backup)
NAND Flash	EMMC 4G	EMMC 4G	EMMC 4G
Interface types and quantity			
Console ports	• 1 × Mini USB console port • 1 × serial console port	1 × serial console port	• 1 × Mini USB console port • 1 × serial console port
Management Ethernet ports	• 1 × 10M/100M/1000M BASE-T copper port • 1 × SFP port	1 × copper management Ethernet port	• 1 × 10M/100M/1000M BASE-T copper port • 1 × SFP port
USB ports	1	1	1
SFP ports	2	N/A	N/A
SFP28 ports	48	48	N/A
QSFP28 ports	8	8	2
IRF physical ports	The following ports on the device panel and expander modules support IRF connection: • QSFP28 ports (except for ports on the LSWM18CQMSEC interface module)		

Item	LS-6850-56HF/LS-6850-56HF-H1/S6850-56HF-SAN	LS-6850-56HF-H3	S6850-2C
	• QSFP+ ports These ports support only 100 GE and 40 GE IRF connections, and do not support 1G/10G/25G/50G IRF physical connections.		
Fans, power modules, and expansion modules			
Fan tray slots	5	4	5
Power module slots	2	2	2
Expansion slots	N/A	N/A	2
Power module specifications			
Power input	AC input, DC input, and HVDC input		
Power specifications	See "Power modules"		
Power consumption			
Typical power consumption (Fully configured with copper cables, at 50% load)	• Single AC input: 201 W • Dual AC inputs: 224 W • Single DC input: 198 W • Dual DC inputs: 210 W	• Single AC input: 143 W • Dual AC inputs: 150 W	• With two LSWM18CQ modules: 282 W • With two LSWM18CQMSEC modules: 326 W • With two LSWM116Q modules: 260 W • With two LSWM18QC modules: 230 W • With two LSWM124XG2Q modules: 286 W • With two LSWM124XGT2Q modules: 348 W • With two LSWM124XG2QFC modules: 286 W • With two LSWM124XG2QL modules: 242 W • With two LSWM124TG2H modules: 282 W • With two LSWM116FC modules: 260 W
Maximum power consumption (Fully configured with transceiver modules, at 100% load)	• Single AC input: 405 W • Dual AC inputs: 413 W • Single DC input: 400 W • Dual DC inputs: 408 W	• Single AC input: 424 W • Dual AC inputs: 429 W	• With two LSWM18CQ modules: 421 W • With two LSWM18CQMSEC modules: 451 W • With two LSWM116Q modules: 385 W • With two LSWM18QC modules: 325 W • With two

Item	LS-6850-56HF/LS-6850-56HF-H1/S6850-56HF-SAN	LS-6850-56HF-H3	S6850-2C
			LSWM124XG2Q modules: 385 W • With two LSWM124XGT2Q modules: 511 W • With two LSWM124XG2QFC modules: 385 W • With two LSWM124XG2QL modules: 337 W • With two LSWM124TG2H modules: 421 W • With two LSWM116FC modules: 385 W
Thermal consumption			
Typical thermal consumption	• Single AC input: 686 BTU/hr • Dual AC inputs: 764 BTU/hr • Single DC input: 676 BTU/hr • Dual DC inputs: 717 BTU/hr	• Single AC input: 498 BTU/hr • Dual AC inputs: 498 BTU/hr	• With two LSWM18CQ modules: 962 BTU/hr • With two LSWM18CQMSEC modules: 1112 BTU/hr • With two LSWM116Q modules: 887 BTU/hr • With two LSWM18QC modules: 785 BTU/hr • With two LSWM124XG2Q modules: 976 BTU/hr • With two LSWM124XGT2Q modules: 1187 BTU/hr • With two LSWM124XG2QFC modules: 976 BTU/hr • With two LSWM124XG2QL modules: 826 BTU/hr • With two LSWM124TG2H modules: 962 BTU/hr • With two LSWM116FC modules: 887 BTU/hr
Maximum thermal consumption	• Single AC input: 1382 BTU/hr • Dual AC inputs: 1409 BTU/hr • Single DC input: 1365 BTU/hr • Dual DC inputs: 1392 BTU/hr	1464 BTU/hr	• With two LSWM18CQ modules: 1436 BTU/hr • With two LSWM18CQMSEC modules: 1539 BTU/hr • With two LSWM116Q modules: 1314 BTU/hr • With two LSWM18QC modules: 1109 BTU/hr • With two LSWM124XG2Q

Item	LS-6850-56HF/LS-6850-56HF-H1/S6850-56HF-SAN	LS-6850-56HF-H3	S6850-2C
			modules: 1314 BTU/hr
			• With two LSWM124XGT2Q modules: 1744 BTU/hr
			• With two LSWM124XG2QFC modules: 1314 BTU/hr
			• With two LSWM124XG2QL modules: 1150 BTU/hr
			• With two LSWM124TG2H modules: 1436 BTU/hr
			• With two LSWM116FC modules: 1314 BTU/hr

Heat dissipation

Item			
Heat dissipation method	Air cooling		
Ventilation aisles	Front-to-rear or rear-to-front (based on the installed fan trays)		

Reliability and availability

Item	LS-6850-56HF/LS-6850-56HF-H1/S6850-56HF-SAN	LS-6850-56HF-H3	S6850-2C
Power module redundancy	1+1 redundancy	1+1 redundancy	1+1 redundancy
Fan redundancy	4+1 redundancy	3+1 redundancy	4+1 redundancy
Hot swapping	Power modules and fan trays support hot swapping Expansion modules support hot swapping, but do not hot swap an expansion module when the device is starting up		
Mean Time Between Failure (MTBF) (year)	LS-6850-56HF/LS-6850-56HF-H1: 33.2 S6850-56HF-SAN: 54.9	78.7	34
Mean time to repair (MTTR) (hour)	LS-6850-56HF/LS-6850-56HF-H1: 1 S6850-56HF-SAN: 0.5	0.5	1
Availability	LS-6850-56HF/LS-6850-56HF-H1: 99.999666% S6850-56HF-SAN: 99.999894%	99.999927%	99.999664%

Environment specifications

Item			
Sound pressure level at 27°C (80.6°F)	62.1 dB(A)	65.5 dB(A)	61.3 dB(A)
Altitude	–60 m to +5000 m (–196.85 ft to +16404.20 ft)		
Operating	0°C to 45°C (32°F to 113°F)		

Item	LS-6850-56HF/LS-6850-56HF-H1/S6850-56HF-SAN	LS-6850-56HF-H3	S6850-2C
temperature	**Note:** The allowed maximum temperature decreases by 0.33 °C (32.59°F) as the altitude increases by 100 m (328.08 ft) from 0 m (0 ft). With the LSWM124XG2Q and LSWM124XG2QL interface module installed on the switch, if you use an SFP-XG-LH80-SM1550 transceiver module, the operating temperature must be in the range of 0°C to 40°C (32°F to 104°F).		
Storage temperature	–40°C to +70°C (–40°F to +158°F)		
Humidity	5% RH to 95% RH, noncondensing		
Compliance			
Product compliance	• Safety standards • EMC standards • Environmental and eco-friendly standards		

Table1-2 H3C S9850 switch series technical specifications

Item	S9850-4C	S9850-32H
Physical specifications		
Dimensions (H × W × D)	Without package: 88.1 × 440 × 660 mm (3.47 × 17.32 × 25.98 in) With package: 215 × 830 × 580 mm (8.46 × 32.68 × 22.83 in)	Without package: 43.6 × 440 × 460 mm (1.72 × 17.32 × 18.11 in) With package: 150 × 718 × 556 mm (5.91 × 28.27 × 21.89 in)
Weight (with all power modules, fans, and expander modules installed)	≤ 27 kg (59.52 lb)	≤ 15 kg (33.07 lb)
Technical specifications		
Processor	LS-9850-4C: 4 cores, 2.4 GHz LS-9850-4C-H1: 4 cores, 2.2 GHz	LS-9850-32H-A: 4 cores, 2.4 GHz LS-9850-32H-H1: 4 cores, 2.2 GHz
DRAM Memory	8 GB	8 GB
NOR Flash	32 MB *2 (primary and backup)	32 MB *2 (primary and backup)
NAND Flash	LS-9850-4C: EMMC 4G LS-9850-4C-H1: EMMC 4G	LS-9850-32H-A: EMMC 4G LS-9850-32H-H1: EMMC 8G
Interface types and quantity		
Console ports	• 1 × Mini USB console port • 1 × serial console port	• 1 × Mini USB console port • 1 × serial console port
Management Ethernet ports	• 1 × 10M/100M/1000M BASE-T copper port • 1 × SFP port	• 1 × 10M/100M/1000M BASE-T copper port • 1 × SFP port
USB ports	1	1
SFP ports	2	2
QSFP28 ports	N/A	32
IRF physical ports	The following ports on the device panel and expander modules support IRF	

| Item	S9850-4C	S9850-32H
	connection: • QSFP28 ports (except for ports on the LSWM18CQMSEC interface module) • QSFP+ ports These ports support only 100 GE and 40 GE IRF connections, and do not support 1G/10G/25G/50G IRF physical connections	
Fans, power modules, and expander modules		
Fan tray slots	2	5
Power module slots	4	2
Expansion slots	4	N/A
Power module specifications		
Power input	AC input, DC input, high-voltage DC input	
Power specifications	See "Power modules"	
Power consumption		
Typical power consumption (Fully configured with copper cables, at 50% load)	• With four LSWM18CQ modules: 355 W • With four LSWM18CQMSEC modules: 443 W • With four LSWM116Q modules: 311 W • With four LSWM18QC modules: 251 W • With four LSWM124XG2Q modules: 363 W • With four LSWM124XGT2Q modules: 487 W • With four LSWM124XG2QFC modules: 363 W • With four LSWM124XG2QL modules: 275 W • With four LSWM124TG2H modules: 355 W • With four LSWM116FC modules: 311 W	• Single AC input: 198 W • Dual AC inputs: 210 W • Single DC input: 197 W • Dual DC inputs: 208 W
Maximum power consumption (Fully configured with transceiver modules, at 100% load)	• With four LSWM18CQ modules: 688 W • With four LSWM18CQMSEC modules: 748 W • With four LSWM116Q modules: 616 W • With four LSWM18QC modules: 496 W • With four LSWM124XG2Q modules: 616 W • With four LSWM124XGT2Q modules: 868 W • With four LSWM124XG2QFC modules: 616 W • With four LSWM124XG2QL modules: 520 W • With four LSWM124TG2H modules:	• Single AC input: 376 W • Dual AC inputs: 385 W • Single DC input: 373 W • Dual DC inputs: 377 W

Item	S9850-4C	S9850-32H
	688 W • With four LSWM116FC modules: 616 W	
Thermal consumption		
Typical thermal consumption	• With four LSWM18CQ modules: 1211 BTU/hr • With four LSWM18CQMSEC modules: 1512 BTU/hr • With four LSWM116Q modules: 1061 BTU/hr • With four LSWM18QC modules: 856 BTU/hr • With four LSWM124XG2Q modules: 1239 BTU/hr • With four LSWM124XGT2Q modules: 1662 BTU/hr • With four LSWM124XG2QFC modules: 1239 BTU/hr • With four LSWM124XG2QL modules: 938 BTU/hr • With four LSWM124TG2H modules: 1211 BTU/hr • With four LSWM116FC modules: 1061 BTU/hr	• Single AC input: 676 BTU/hr • Dual AC inputs: 717 BTU/hr • Single DC input: 672 BTU/hr • Dual DC inputs: 710 BTU/hr
Maximum thermal consumption	• With four LSWM18CQ modules: 2279 BTU/hr • With four LSWM18CQMSEC modules: 2552 BTU/hr • With four LSWM116Q modules: 2102 BTU/hr • With four LSWM18QC modules: 1692 BTU/hr • With four LSWM124XG2Q modules: 2102 BTU/hr • With four LSWM124XGT2Q modules: 2962 BTU/hr • With four LSWM124XG2QFC modules: 2102 BTU/hr • With four LSWM124XG2QL modules: 1774 BTU/hr • With four LSWM124TG2H modules: 2348 BTU/hr • With four LSWM116FC modules: 2102 BTU/hr	• Single AC input: 1283 BTU/hr • Dual AC inputs: 1314 BTU/hr • Single DC input: 1273 BTU/hr • Dual DC inputs: 1286 BTU/hr
Heat dissipation		
Heat dissipation method	Air cooling	
Ventilation aisles	Front-to-rear or rear-to-front (based on the installed fan trays)	
Reliability and availability		
Power module redundancy	2+1 or 2+2 redundancy	1+1 redundancy
Fan redundancy	Use two fan trays and provide 1+1	4+1 redundancy

Item	S9850-4C	S9850-32H
	redundancy when the ambient temperature is below 35°C (95°F)	
Hot swapping	Power modules and fan trays support hot swapping Expander modules support hot swapping, but do not hot swap an expander module when the device is starting up	
Mean Time Between Failure (MTBF)(Year)	45.8	27.2
Mean time to repair (MTTR) (Hour)	1	1
Availability	99.999742%	99.999580%
Environment specifications		
Sound pressure level at 27°C (80.6°F)	70.8 dB(A)	62.4 dB(A)
Altitude	–60 m to +5000 m (–196.85 ft to +16404.20 ft)	
Operating temperature	0°C to 45°C (32°F to 113°F) **Note:** The allowed maximum temperature decreases by 0.33 °C (32.59°F) as the altitude increases by 100 m (328.08 ft) from 0 m (0 ft). With the LSWM124XG2Q and LSWM124XG2QL interface module installed on the switch, if you use an SFP-XG-LH80-SM1550 transceiver module, the operating temperature must be in the range of 0°C to 40°C (32°F to 104°F).	
Storage temperature	–40°C to +70°C (–40°F to +158°F)	
Storage humidity	5% RH to 95% RH, noncondensing	
Compliance		
Product compliance	• Safety standards • EMC standards • Environmental and eco-friendly standards	

2 Chassis views

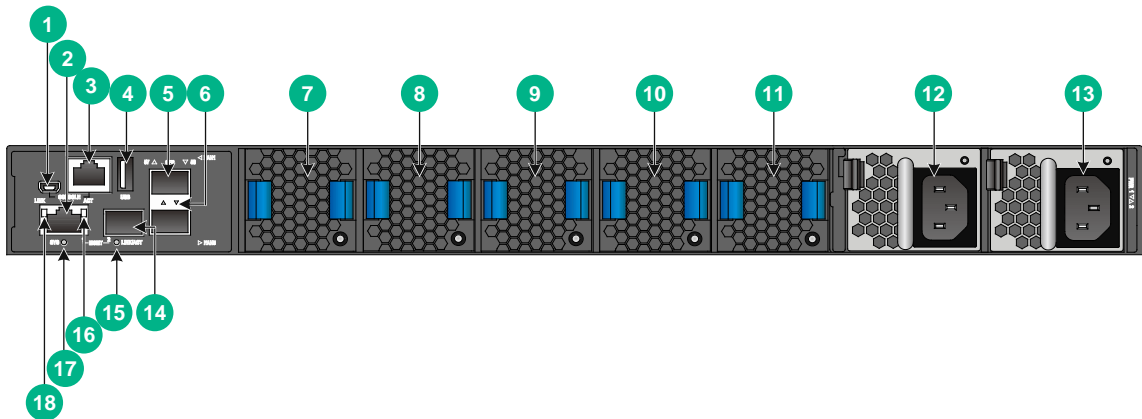## LS-6850-56HF/LS-6850-56HF-H1/S6850-56HF-SAN

Figure2-1 LS-6850-56HF/LS-6850-56HF-H1/S6850-56HF-SAN front panel
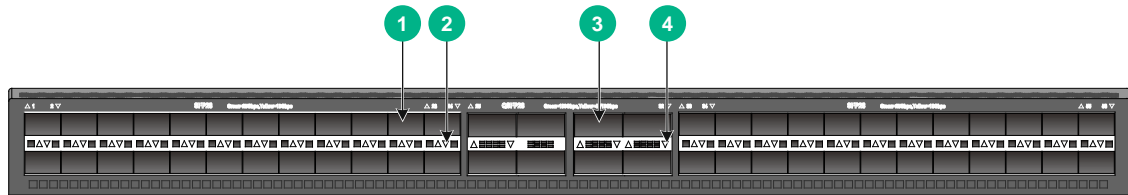
(1) 48 × 1GE/10GE/25GE SFP28 Ethernet fiber ports	(2) SFP28 port LED
(3) 8 × 40GE/100GE QSFP28 Ethernet fiber ports	(4) QSFP28 port LED

Figure2-2 LS-6850-56HF/LS-6850-56HF-H1/S6850-56HF-SAN rear panel

(1) Mini USB console port	(2) Copper management Ethernet port (numbered 0)
(3) Serial console port	(4) USB port
(5) Two 1GE SFP Ethernet fiber ports	(6) SFP port LED
(7) Fan tray 1	(8) Fan tray 2
(9) Fan tray 3	(10) Fan tray 4
(11) Fan tray 5	(12) Power module 1
(13) Power module 2	(14) Fiber management Ethernet port (numbered 1)
(15) Fiber management Ethernet port LED (LINK/ACT)	
(16) Copper management Ethernet port LED (ACT)	(17) System status LED (SYS)
(18) Copper management Ethernet port LED (LINK)	

The LS-6850-56HF, LS-6850-56HF-H1, and S6850-56HF-SAN switches come with power module slot PWR1 empty and power module slot PWR2 installed with a filler panel. You can install one or two power modules for the switch as needed. In Figure2-2, two LSVM1AC650 power modules are installed in the power module slots.

The LS-6850-56HF, LS-6850-56HF-H1, and S6850-56HF-SAN switches come with the five fan tray slots empty. You must install five fan trays of the same model for the switch. In Figure2-2, five LSWM1FANSA fan trays are installed in the fan tray slots.

The LS-6850-56HF, LS-6850-56HF-H1, and S6850-56HF-SAN switches support shipping with fan trays and power modules installed. To purchase a switch preinstalled with fans trays and power modules, contact marketing staff.

Figure2-3 LS-6850-56HF/LS-6850-56HF-H1/S6850-56HF-SAN left panel

(1) Power module handle	(2) Mounting bracket installation holes at the power module side
(3) Primary grounding point	(4) Auxiliary grounding point
(5) Mounting bracket installation holes at the port side	(6) Fan tray handle
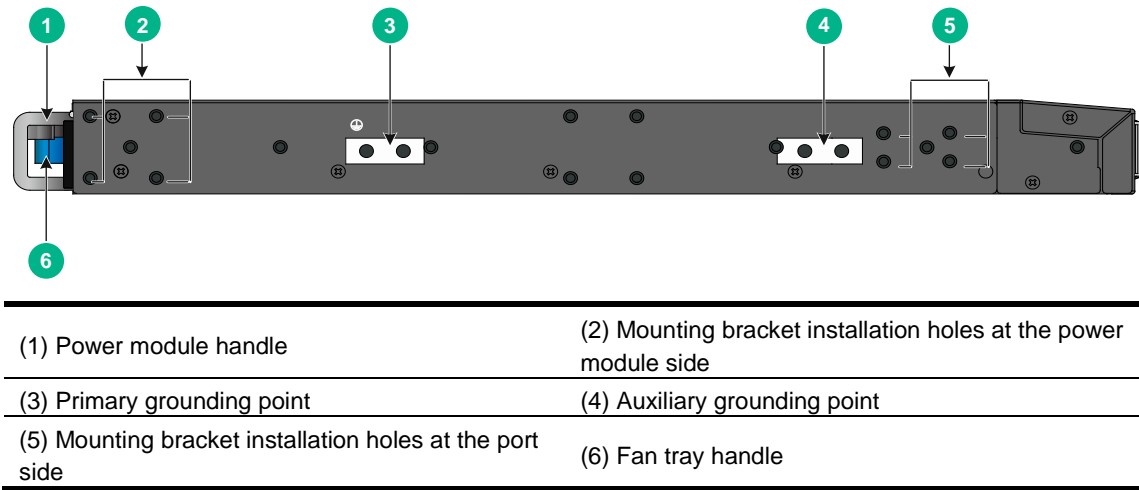
LS-6850-56HF-H3

Figure2-4 LS-6850-56HF-H3 front panel

(1) System status LED (SYS)	(2) Power module status LED (PSU)
(3) Fan tray status LED (FAN)	(4) SFP28 Ethernet fiber port
(5) SFP28 port LED	(6) QSFP28 Ethernet fiber port
(7) QSFP28 port LED	

Figure2-5 LS-6850-56HF-H3 left panel

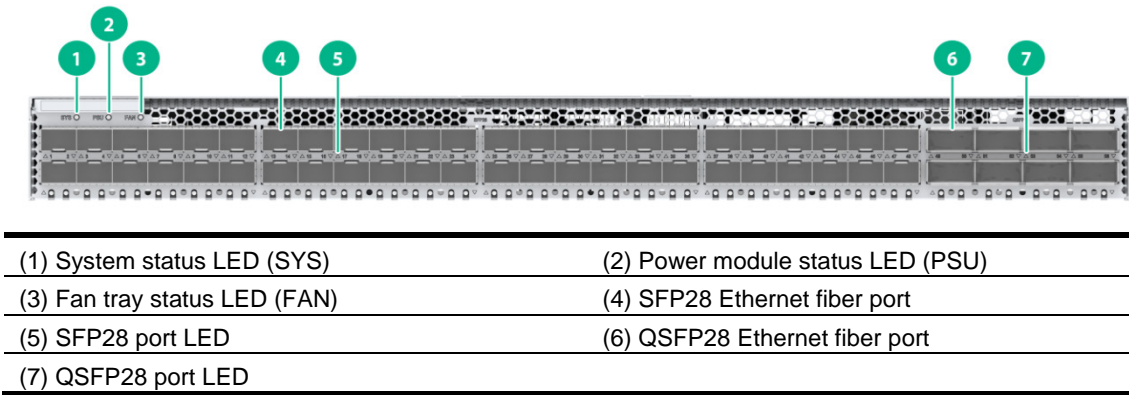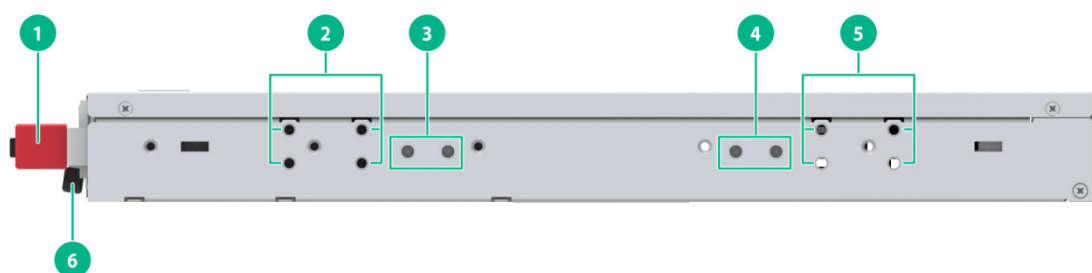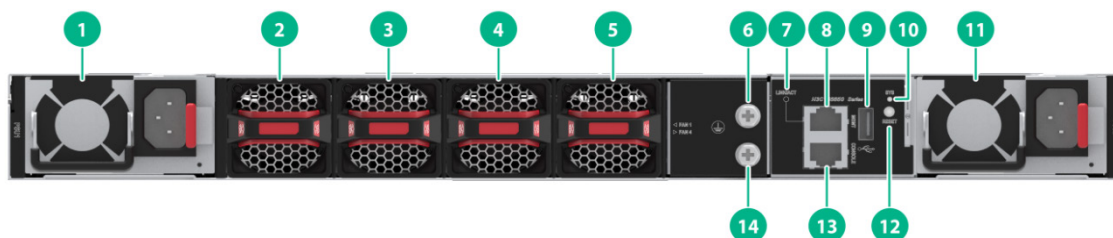|	
(1) Power module latch	(2) Mounting bracket installation holes at the power module side
(3) Grounding point 1	(4) Grounding point 2
(5) Mounting bracket installation holes at the port side	(6) Power module handle

Figure2-6 LS-6850-56HF-H3 rear panel

(1) Power module 1	(2) Fan tray 1
(3) Fan tray 2	(4) Fan tray 3
(5) Fan tray 4	(6) Grounding screw 1
(7) Copper management Ethernet port LED (LINK/ACT)	(8) Copper management Ethernet port
(9) USB port	(10) System status LED (SYS)
(11) Power module 2	(12) Reset button
(13) Serial console port	(14) Grounding screw 2

The LS-6850-56HF-H3 switch comes with power module slot PWR1 empty and power module slot PWR2 installed with a filler panel. You can install one or two power modules for the switch as needed. In Figure2-6, two SW-A-PSR550-12A-B power modules are installed in the power module slots.

The LS-6850-56HF-H3 switch comes with the four fan tray slots empty. You must install four fan trays of the same model for the switch. In Figure2-6, four FAN-40B-1-C fan trays are installed in the fan tray slots.

The LS-6850-56HF-H3 switch provides a reset button on the rear panel for you to reset the switch.

The LS-6850-56HF-H3 switch provides one grounding point on the rear panel and two grounding points on the side panel. The primary grounding point has a grounding sign. As a best practice, use a grounding point on the rear panel.

S6850-2C

Figure2-7 S6850-2C front panel
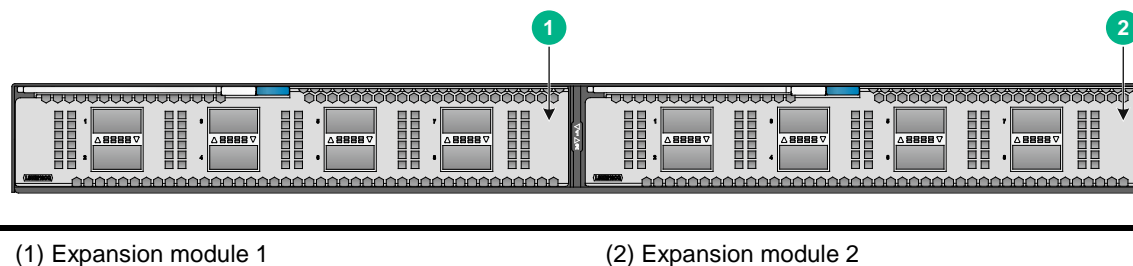
(1) Expansion module 1	(2) Expansion module 2

Figure2-8 S6850-2C rear panel
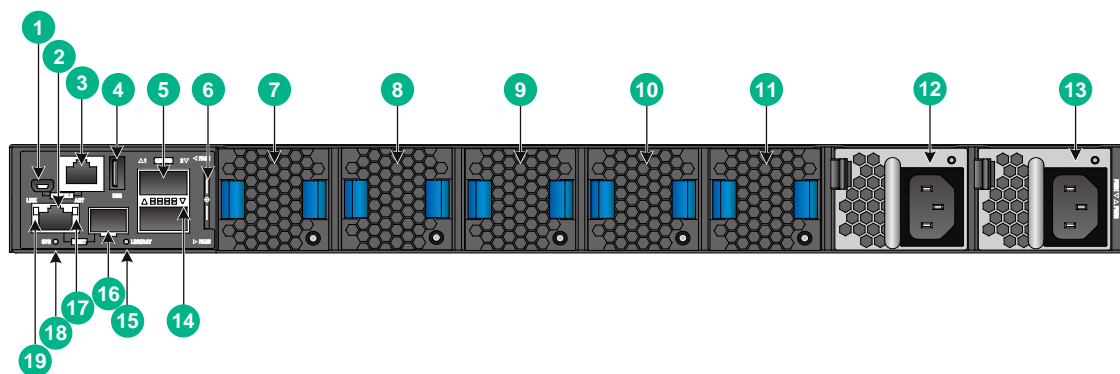
(1) Mini USB console port	(2) Copper management Ethernet port (numbered 0)
(3) Serial console port	(4) USB port
(5) Two 40GE/100GE QSFP28 Ethernet fiber ports	(6) Serial label pull tab
(7) Fan tray 1	(8) Fan tray 2
(9) Fan tray 3	(10) Fan tray 4
(11) Fan tray 5	(12) Power module 1
(13) Power module 2	(14) QSFP28 port LED
(15) Fiber management Ethernet port LED (LINK/ACT)	
(16) Fiber management Ethernet port (numbered 1)	(17) Copper management Ethernet port LED (ACT)
(18) System status LED (SYS)	(19) Copper management Ethernet port LED (LINK)

The ESN serial number and MAC address of the S6850-2C switch can be found on the serial label pull tab.

The S6850-2C switch comes with expansion slot 1 empty and expansion slot 2 installed with a filler panel. You can install one or two expansion modules for the switch as needed. In Figure2-7, two LSWM18CQ interface modules are installed in the expansion slots.

The S6850-2C switch comes with power module slot PWR1 empty and power module slot PWR2 installed with a filler panel. You can install one or two power modules for the switch as needed. In Figure2-8, two LSVM1AC650 power modules are installed in the power module slots.

The S6850-2C switch comes with the five fan tray slots empty. You must install five fan trays of the same model for the switch. In Figure2-8, five LSWM1FANSA fan trays are installed in the fan tray slots.

The S6850-2C switch supports shipping with fan trays and power modules installed. To purchase a switch preinstalled with fans trays and power modules, contact marketing staff.

Figure2-9 S6850-2C left panel
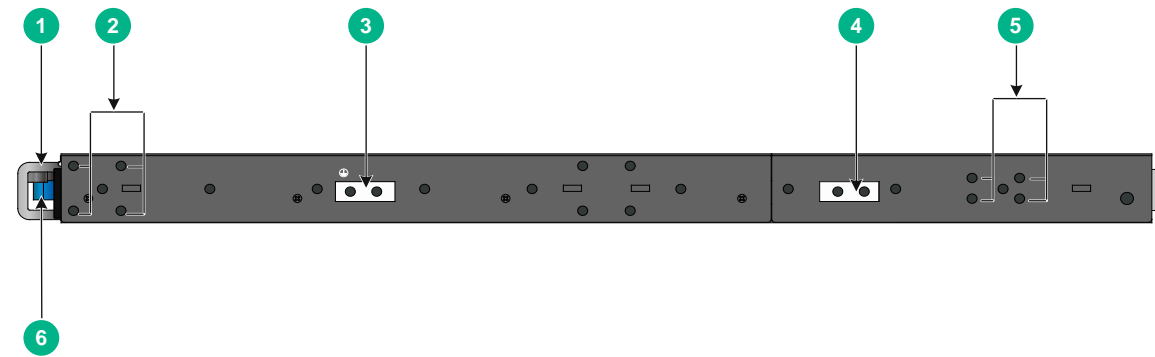
(1) Power module handle	(2) Chassis ear position at the power module side
(3) Primary grounding point	(4) Auxiliary grounding point
(5) Chassis ear position at the port side	(6) Fan tray handle

S9850-4C

Figure2-10 S9850-4C front panel
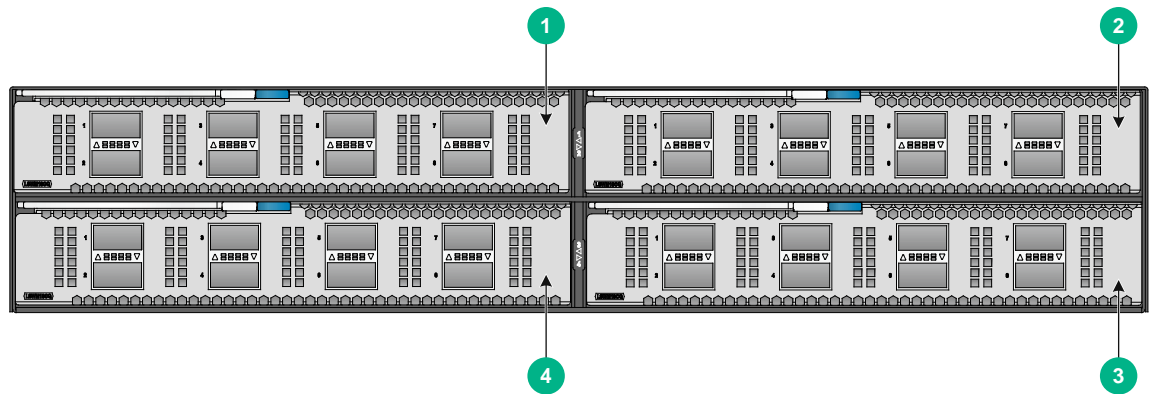
(1) Expansion module 1	(2) Expansion module 2
(3) Expansion module 4	(4) Expansion module 3

Figure2-11 S9850-4C rear panel
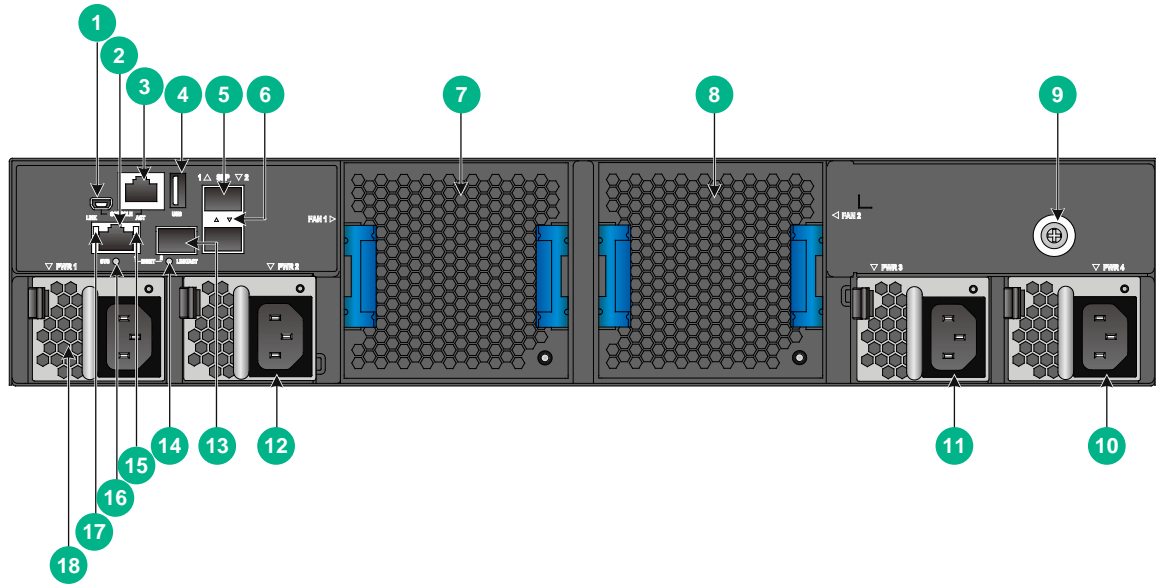
(1) Mini USB console port	(2) Copper management Ethernet port (numbered 0)
(3) Serial console port	(4) USB port
(5) Two 1GE SFP Ethernet fiber ports	(6) SFP port LED
(7) Fan tray 1	(8) Fan tray 2
(9) Grounding screw (auxiliary grounding point 2)	(10) Power module 4
(11) Power module 3	(12) Power module 2
(13) Fiber management Ethernet port (numbered 1)	
(14) Fiber management Ethernet port LED (LINK/ACT)	
(15) Copper management Ethernet port LED (ACT)	(16) System status LED (SYS)
(17) Copper management Ethernet port LED (LINK)	(18) Power module 1

The S9850-4C switch comes with expansion slot 1 empty and the other three expansion slots each installed with a filler panel. You can install one to four expansion modules for the switch as needed. In Figure2-10, four LSWM18CQ interface modules are installed in the expansion slots.

The S9850-4C switch comes with power module slots PWR2 and PWR3 empty and the other two power module slots each installed with a filler panel. You can install two to four power modules for the switch as needed. In Figure2-11, four LSVM1AC650 power modules are installed in the power module slots.

The S9850-4C switch comes with the two fan tray slots empty. You must install two fan trays of the same model for the switch. In Figure2-11, two LSWM1BFANSC fan trays are installed in the fan tray slots.

The S9850-4C switch supports shipping with fan trays and power modules installed. To purchase a switch preinstalled with fans trays and power modules, contact marketing staff.

Figure2-12 S9850-4C left panel
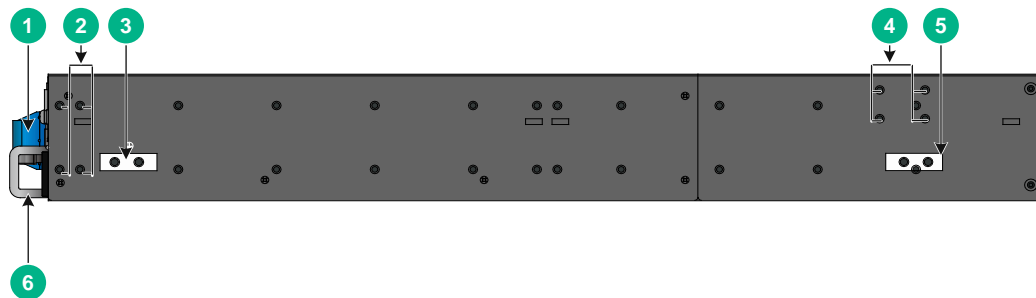
(1) Fan tray handle	(2) Chassis ear position at the power module side
(3) Primary grounding point	(4) Chassis ear position at the port side
(5) Auxiliary grounding point	(6) Power module handle

S9850-32H

Figure2-13 S9850-32H front panel
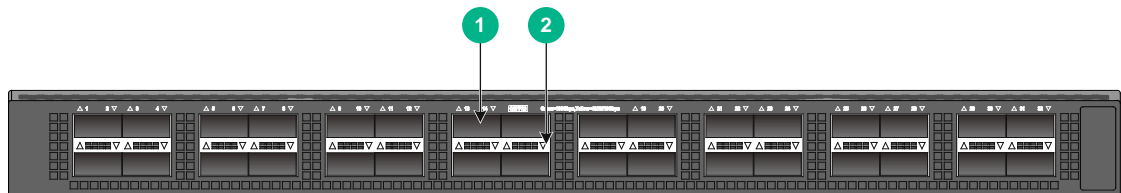
(1) 32 × 40GE/100GE QSFP28 Ethernet fiber ports	(2) QSFP28 port LED

Figure2-14 S9850-32H rear panel

(1) Mini USB console port	(2) Copper management Ethernet port (numbered 0)
(3) Serial console port	(4) USB port
(5) Two 1GE SFP Ethernet fiber ports	(6) SFP port LED
(7) Fan tray 1	(8) Fan tray 2
(9) Fan tray 3	(10) Fan tray 4
(11) Fan tray 5	(12) Power module 1
(13) Power module 2	(14) Serial label pull tab
(15) Fiber management Ethernet port (numbered 1)	
(16) Fiber management Ethernet port LED (LINK/ACT)	

(17) Copper management Ethernet port LED (ACT)	
(18) System status LED (SYS)	(19) Copper management Ethernet port LED (LINK)

The ESN serial number and MAC address of the S9850-32H switch can be found on the serial label pull tab.

The S9850-32H switch comes with power module slot PWR1 empty and power module slot PWR2 installed with a filler panel. You can install one or two power modules for the switch as needed. In Figure2-14, two LSVM1AC650 power modules are installed in the power module slots.

The S9850-32H switch comes with the five fan tray slots empty. You must install five fan trays of the same model for the switch. In Figure2-14, five LSWM1FANSA fan trays are installed in the fan tray slots.

The S9850-32H switch supports shipping with fan trays and power modules installed. To purchase a switch preinstalled with fans trays and power modules, contact marketing staff.

Figure2-15 S9850-32H left panel
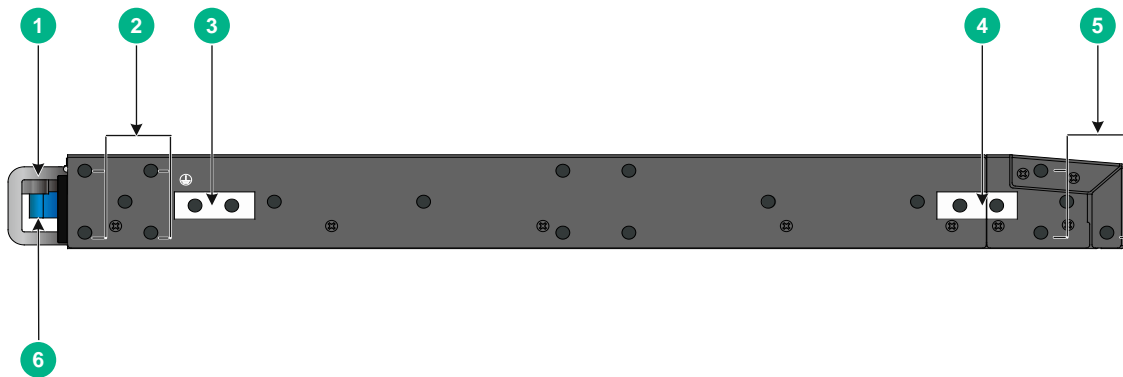
(1) Power module handle	(2) Chassis ear position at the power module side
(3) Primary grounding point	(4) Auxiliary grounding point
(5) Chassis ear position at the port side	(6) Fan tray handle

3 FRUs

The switch uses modular design. Table3-1 describes the FRUs available for the switch.

Table3-1 FRUs available for the switch

FRUs	BOM code	LS-6850-56HF/LS-6850-56HF-H1/S6850-56HF-SAN	LS-6850-56HF-H3	S6850-2C	S9850-4C	S9850-32H
Power modules						
LSVM1AC650	0231A0QM	Yes	No	Yes	Yes	Yes
LSVM1DC650	0231A0QP	Yes	No	Yes	Yes	Yes
SW-A-PSR550-12A-B	0231AKX6	No	Yes	No	No	No
SW-B-PSR550-12A-B	0231AKX7	No	Yes	No	No	No
PSR800-12D-S	0231ANFA	No	Yes	No	No	No
Fan trays						
LSWM1FANSA	0231A4BB	Yes	No	Yes	No	Yes
LSWM1FANSA-SN (support electronic label information reading)	0231AG9L	Yes. • LS-6850-56HF: in Release 6607 and later versions and R6555P01 installed with the R6555P01H31 patch • LS-6850-56HF-H1: in	No	Yes, in Release 6607 and later versions and R6555P01 installed with the R6555P01H31 patch.	No	Yes, in Release 6607 and later versions and R6555P01 installed with the R6555P01H31 patch.

FRUs	BOM code	LS-6850-56HF/LS-6850-56HF-H1/S6850-56HF-SAN	LS-6850-56HF-H3	S6850-2C	S9850-4C	S9850-32H
		F6623 and later versions • S6850-56HF-SAN: Yes				
LSWM1FANSAB	0231A4BC	Yes	No	Yes	No	Yes
LSWM1FANSAB-SN (support electronic label information reading)	0231AG9H	Yes. • LS-6850-56HF: in Release 6607 and later versions and R6555P01 installed with the R6555P01H31 patch • LS-6850-56HF-H1: in F6623 and later versions • S6850-56HF-SAN: Yes	No	Yes, in Release 6607 and later versions and R6555P01 installed with the R6555P01H31 patch.	No	Yes, in Release 6607 and later versions and R6555P01 installed with the R6555P01H31 patch.
LSWM1BFANSC	0231A2Y7	No	No	No	Yes	No
LSWM1BFANSC-SN (support electronic label information reading)	0231AG9G	No	No	No	Yes, in Release 6555P01 and later versions.	No
LSWM1BFANSCB	0231A2Y6	No	No	No	Yes	No
LSWM1BFA	0231AG9K	No	No	No	Yes, in	No

FRUs	BOM code	LS-6850-56HF/LS-6850-56HF-H1/S6850-56HF-SAN	LS-6850-56HF-H3	S6850-2C	S9850-4C	S9850-32H
NSCB-SN (support electronic label information reading)					Release 6555P01 and later versions.	
FAN-40B-1-C	9803A00F	No	Yes	No	No	No
FAN-40B-1-D	9803A00S	Yes, in R6715 and later versions	Yes	No	No	No
FAN-40F-1-D	0231AKLC	No	Yes	No	No	No
Expansion modules						
LSWM18CQ	0231A4XH	No	No	Yes	Yes	No
LSWM18CQMSEC	0231A8FM	No	No	Yes in E6553 and later versions	Yes in E6553 and later versions	No
LSWM116Q	0231A4XJ	No	No	Yes in E6552 and later versions	Yes in E6552 and later versions	No
LSWM18QC	0231A2U4	No	No	Yes in E6553 and later versions	Yes in E6553 and later versions	No
LSWM124XG2Q	0231A2U5	No	No	Yes in E6553 and later versions	Yes in E6553 and later versions	No
LSWM124XGT2Q	0231A2U6	No	No	Yes in E6552 and later versions	Yes in E6552 and later versions	No
LSWM124XG2QFC	0231A2YE	No	No	Yes in E6553 and later versions	Yes in E6553 and later versions	No
LSWM124XG2QL	0231A2U7	No	No	Yes in E6553 and later versions	Yes in E6553 and later versions	No
LSWM124TG2H	0231A5S8	No	No	Yes	Yes	No
LSWM116FC	0231A5SB	No	No	Yes in Release 6635 and later	Yes in Release 6635 and later	No

FRUs	BOM code	LS-6850-56HF/LS-6850-56HF-H1/S6850-56HF-SAN	LS-6850-56HF-H3	S6850-2C	S9850-4C	S9850-32H
				versions	versions	

You can install both LSVM1AC650 and LSVM1DC650 power modules on the switch.

Do not install the SW-A-PSR550-12A-B and SW-B-PSR550-12A-B power modules on the same switch.

The S6850-56HF, S6850-56HF-SAN, S6850-2C, and S9850-32H switches can operate correctly with only one power module. You can install two power modules for 1+1 redundancy.

The S9850-4C switch can operate correctly with two power modules. You can install three power modules for 2+1 redundancy or four power modules for 2+2 redundancy.

To ensure heat dissipation, make sure all fan slots are installed with fan trays and install fan trays of the same model on the switch as a best practice.

Power modules

△ **CAUTION:**

When the switch has power modules in redundancy, you can replace a power module without powering off the switch. Make sure the power module to be replaced is powered off before you replace it.
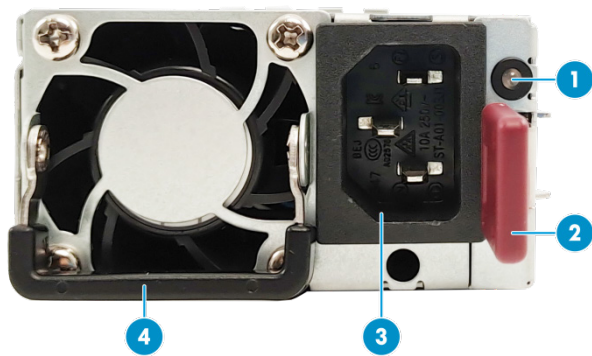
550 W AC power module (SW-A-PSR550-12A-B/SW-B-PSR550-12A-B)

The views of the SW-A-PSR550-12A-B and SW-B-PSR550-12A-B power modules are similar. This document uses the SW-A-PSR550-12A-B power module as an example.

Figure3-1 SW-A-PSR550-12A-B power module

Figure3-2 SW-A-PSR550-12A-B front panel

(1) Power module LED	(2) Latch
(3) AC power receptacle	(4) Handle

For information about the power module LED, see "Power module LEDs."

Features

The SW-A-PSR550-12A-B and SW-B-PSR550-12A-B are power modules with AC or HVDC input and DC output. It can provide up to 550 W of output. Table3-2 describes the features provided by the SW-A-PSR550-12A-B and SW-B-PSR550-12A-B power modules.

Table3-2 Features provided by the SW-A-PSR550-12A-B and SW-B-PSR550-12A-B power modules

Feature	Description
Protection function	Protection for input overcurrent, input undervoltage, output overvoltage, output short-circuit, and overtemperature.
Support for redundancy	The power modules can work in N+1 or N+N redundant mode, and support load sharing.
Support for hot swapping	You can install or remove a power module when the switch is operating correctly.

Technical specifications

Table3-3 Technical specifications

Item	SW-A-PSR550-12A-B	SW-B-PSR550-12A-B
Dimensions (H × W × D)	185 × 73.5 × 40 mm (7.28 × 2.89 × 1.57 in), including the handle	185 × 73.5 × 40 mm (7.28 × 2.89 × 1.57 in), including the handle
Weight	0.750 kg (1.65 lb)	0.775 kg (1.71 lb)
Rated AC input voltage range	100 VAC to 240 VAC @ 50 or 60 Hz	
Max AC input voltage range	90 VAC to 264 VAC	
Rated HVDC input voltage	240 VDC	
Max HVDC input voltage range	190 VDC to 310 VDC	
Rated input current	7.0 A Max @ 100 VAC to 240 VAC	

Item	SW-A-PSR550-12A-B	SW-B-PSR550-12A-B
	3.5 A Max @ 240 VDC	
Rated output current	45 A	
Rated output voltage	12 V	
Rated output power	550 W	
Melting current of power module fuse	10 A	

650 W AC power module (LSVM1AC650)

Figure3-3 LSVM1AC650 power module

(1) Latch	(2) Power module LED
(3) AC power receptacle	(4) Handle

For information about the power module LED, see "Power module LEDs."

Features

LSVM1AC650 is a power module with AC input and DC output. It can provide up to 650 W of output. Table3-4 describes the features provided by the LSVM1AC650 power module.

Table3-4 Features provided by the LSVM1AC650 power module

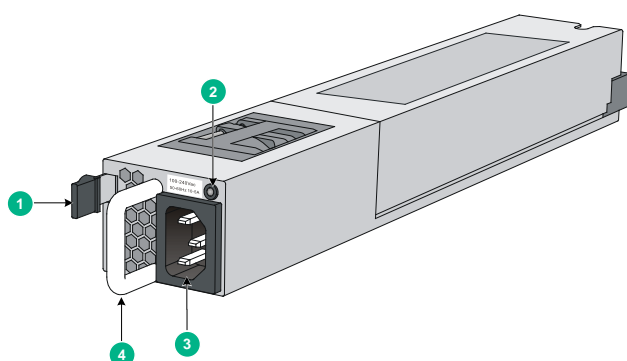| Feature	Description
Protection function	Protection for input overcurrent, input undervoltage, output overvoltage, output short-circuit, and overtemperature.
Support for redundancy	The power modules can work in 1+1 redundant mode, and support load sharing.
Support for hot swapping	You can install or remove a power module when the switch is operating correctly.

Technical specifications

Table3-5 Technical specifications

Item	Specifications
Dimensions (H × W × D)	40.2 × 50.5 × 326 mm (1.58 × 1.99 × 12.83 in), including the handle

Item	Specifications
Weight	1.04 kg (2.29 lb)
Rated AC input voltage range	100 VAC to 240 VAC @ 50 or 60 Hz
Max AC input voltage range	90 VAC to 264 VAC @ 47 to 63 Hz
Rated HVDC input voltage	240 VDC
Max HVDC input voltage range	190 VDC to 290 VDC
Rated input current	10 A
Rated output current	53 A
Rated output voltage	12 V
Rated output power	650 W
Melting current of power module fuse	10 A/ 250 V

650 W DC power module (LSVM1DC650)

Figure3-4 LSVM1DC650 power module
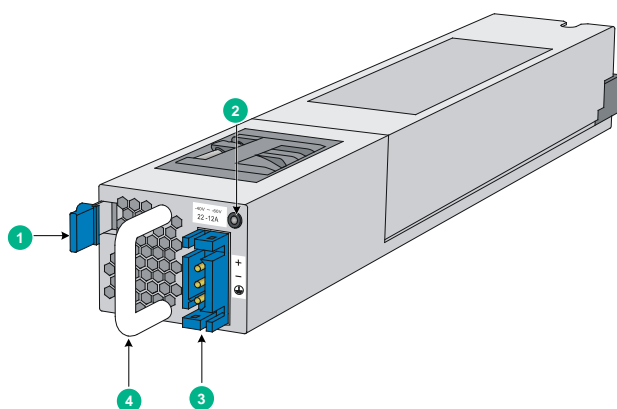
(1) Latch	(2) Power module LED
(3) DC power receptacle	(4) Handle

For information about the LED, see "Power module LEDs."

Features

LSVM1DC650 is a power module with DC input and DC output. It can provide up to 650 W of output. Table3-6 describes the features provided by the LSVM1DC650 power module.

Table3-6 Features provided by the LSVM1DC650 power module

Feature	Description
Protection function	Protection for input overcurrent, input undervoltage, output overvoltage, output short-circuit, and overtemperature.
Support for redundancy	The power modules can work in 1+1 redundant mode, and support load sharing.
Support for hot swapping	You can install or remove a power module when the switch is operating

Feature	Description
	correctly.

Technical specifications

Table3-7 Technical specifications

Item	Specifications
Dimensions (H × W × D)	40.2 × 50.5 × 326 mm (1.58 × 1.99 × 12.83 in), including the handle
Weight	1.07 kg (2.36 lb)
Rated input voltage range	–40 VDC to –60 VDC
Max input voltage range	–40 VDC to –72 VDC
Rated input current	25 A
Rated output current	53 A
Rated output voltage	12 V
Rated output power	650 W
Melting current of power module fuse	30 A/ 250 V

800 W DC power module (PSR800-12D-S)

Figure3-5 PSR800-12D-S power module

Features

PSR800-12D-S is a power module with DC input and DC output. It can provide up to 800 W of output. Table3-8 describes the features provided by the PSR800-12D-S power module.

Table3-8 Features provided by the PSR800-12D-S power module

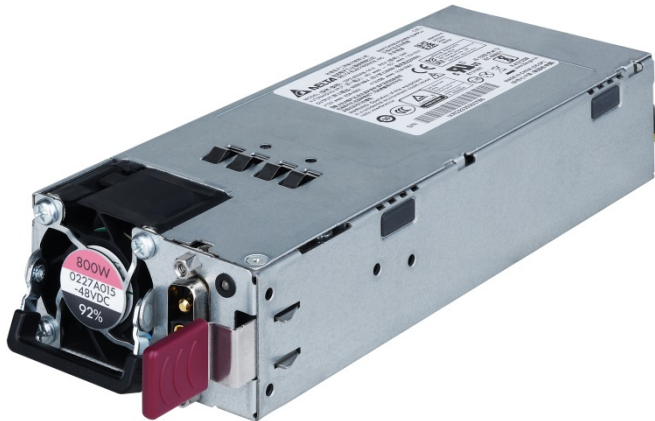| Feature	Description
Protection function	Protection for input overcurrent, input undervoltage, output overvoltage, output short-circuit, and overtemperature.
Support for redundancy	The power modules can work in 1+1 redundant mode, and support load sharing.
Support for hot swapping	You can install or remove a power module when the switch is operating correctly.

Technical specifications

Table3-9 Technical specifications

Item	Specifications
Dimensions (H × W × D)	40 × 73.5 × 185 mm (1.57 × 2.89 × 7.28 in), including the handle
Weight	0.8 kg (1.76 lb)
Rated input voltage range	–48 VDC to –60 VDC
Max input voltage range	–40.5 VDC to –72 VDC
Rated input current	20 A
Rated output current	65 A
Rated output voltage	12 V
Rated output power	800 W
Melting current of power module fuse	30 A

Fan trays

△ **CAUTION:**

The switch has multiple fan tray slots. To ensure good ventilation of the switch, follow these guidelines to install and remove fan trays:

- The switch comes with the fan tray slots empty. As a best practice to ensure adequate heat dissipation, install fan trays of the same model on the switch. Before powering on the switch, make sure the number of installed fan trays meets the minimum requirement.
- Make sure all slots have a module or filler panel installed when the switch is operating.
- If multiple fan trays fail on an operating S6850-56HF, S6850-56HF-SAN, S6850-2C, or S9850-32H switch, do not remove the fan trays at the same time. Replace the fan trays one after another and finish replacing each fan tray within 3 minutes.
- If a fan tray fails on an operating S9850-4C switch, replace the fan tray immediately and keep the failed fan tray in position before replacement. If both fan trays fail, finish replacing the fan trays within 1 minute.

LSWM1FANSA/LSWM1FANSA-SN

Figure3-6 LSWM1FANSA/LSWM1FANSA-SN fan tray

Handle (blue)　Alarm LED
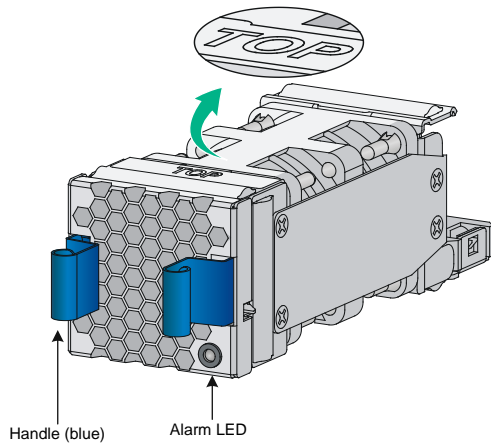
For information about the LED, see "Fan tray alarm LEDs."

Features

The LSWM1FANSA or LSWM1FANSA-SN fan tray blows air from the power module side to the port side. The fan tray is small, hot swappable, and can automatically adjust the fan speed according to the device temperature.

Only the LSWM1FANSA-SN fan tray supports reading the electrical label information.

Technical specifications

Table3-10 LSWM1FANSA/LSWM1FANSA-SN fan tray specifications

Item	Specifications
Dimensions (H × W × D)	40.6 × 42.5 × 135.4 mm (1.60 × 1.67 × 5.33 in), including the handle
Fans	1
Weight	0.19 kg (0.42 lb)
Airflow direction	Air drawn in from the fan tray faceplate
Max fan speed	21000 R.P.M
Max airflow	35 CFM (0.99 m^3/min)
Input voltage	12 V
Max power consumption	30 W

LSWM1FANSAB/LSWM1FANSAB-SN

Figure3-7 LSWM1FANSAB/LSWM1FANSAB-SN fan tray

Handle (red)　　Alarm LED

For information about the LED, see "Fan tray alarm LEDs."

Features

The LSWM1FANSAB or LSWM1FANSAB-SN fan tray draws air from the port side to the power module side. The fan tray is small, hot swappable, and can automatically adjust the fan speed according to the device temperature.

Only the LSWM1FANSAB-SN fan tray supports reading the electrical label information.
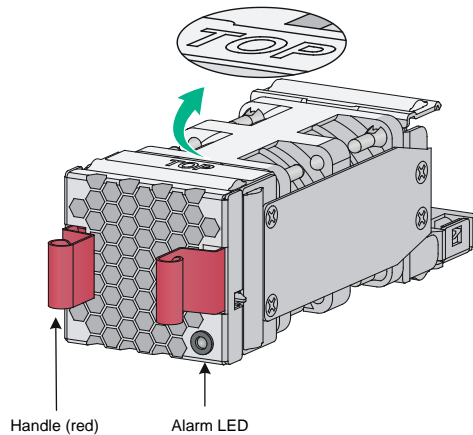
Technical specifications

Table3-11 LSWM1FANSAB/LSWM1FANSAB-SN fan tray specifications

Item	Specifications
Dimensions (H × W × D)	40.6 × 42.5 × 135.4 mm (1.60 × 1.67 × 5.33 in), including the handle
Fans	1
Weight	0.19 kg (0.42 lb)
Airflow direction	Air exhausted from the fan tray faceplate
Max fan speed	21000 R.P.M
Max airflow	35 CFM (0.99 m^3/min)
Input voltage	12 V
Max power consumption	30 W

LSWM1BFANSC/LSWM1BFANSC-SN

Figure3-8 LSWM1BFANSC/LSWM1BFANSC-SN fan tray

Handle (blue)

Alarm LED

For information about the LED, see "Fan tray alarm LEDs."

Features

The LSWM1BFANSC or LSWM1BFANSC-SN fan tray blows air from the power module side to the port side. The fan tray is small, hot swappable, and can automatically adjust the fan speed according to the device temperature.

Only the LSWM1BFANSC-SN fan tray supports reading the electrical label information.
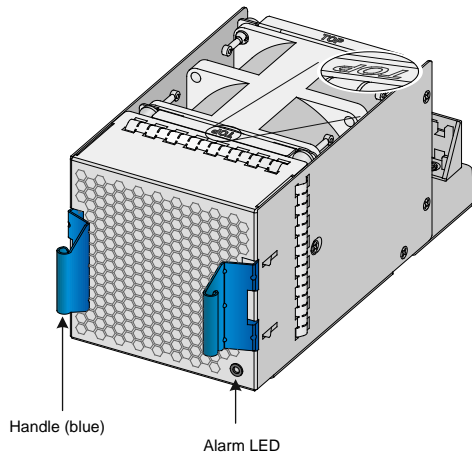
Technical specifications

Table3-12 LSWM1BFANSC/LSWM1BFANSC-SN fan tray specifications

Item	Specifications
Dimensions (H × W × D)	80 × 80 × 232.6 mm (3.15 × 3.15 × 9.16 in), including the handle
Fans	1
Weight	0.90 kg (1.98 lb)
Airflow direction	Air drawn in from the fan tray faceplate
Max fan speed	13300 R.P.M
Max airflow	120 CFM (3.40 m^3/min)
Input voltage	12 V
Max power consumption	57 W

LSWM1BFANSCB/LSWM1BFANSCB-SN

Figure3-9 LSWM1BFANSCB/LSWM1BFANSCB-SN fan tray

Handle (red)

Alarm LED

For information about the LED, see "Fan tray alarm LEDs."

Features

The LSWM1BFANSCB or LSWM1BFANSCB-SN fan tray draws air from the port side to the power module side. The fan tray is small, hot swappable, and can automatically adjust the fan speed according to the device temperature.

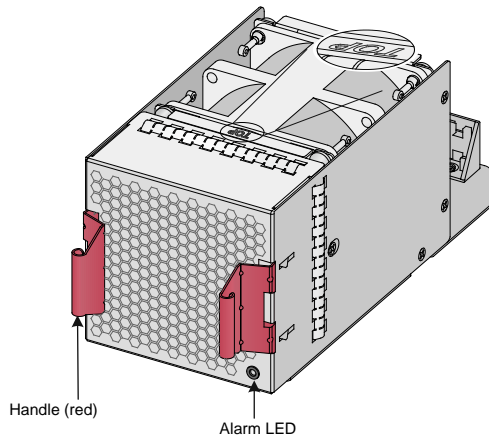Only the LSWM1BFANSCB-SN fan tray supports reading the electrical label information.

Technical specifications

Table3-13 LSWM1BFANSCB/LSWM1BFANSCB-SN fan tray specifications

Item	Specifications
Dimensions (H × W × D)	80 × 80 × 232.6 mm (3.15 × 3.15 × 9.16 in), including the handle
Fans	1
Weight	0.90 kg (1.98 lb)
Airflow direction	Air exhausted from the fan tray faceplate
Max fan speed	13300 R.P.M
Max airflow	120 CFM (3.40 m^3/min)
Input voltage	12 V
Max power consumption	57 W

FAN-40B-1-C/FAN-40F-1-D/FAN-40B-1-D

Figure3-10 FAN-40B-1-C/FAN-40F-1-D/FAN-40B-1-D fan tray
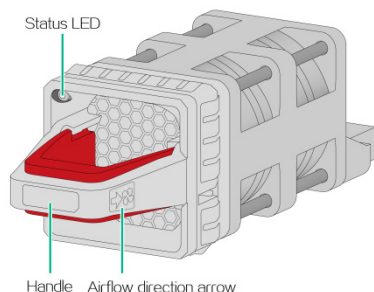
For information about the LED, see Table5-14.

Features

The FAN-40B-1-C or FAN-40B-1-D fan tray draws air from the port side to the power module side. The FAN-40F-1-D fan tray blows air from the power module side to the port side. The fan tray is small, hot swappable, and can automatically adjust the fan speed according to the device temperature.

Technical specifications

Table3-14 FAN-40B-1-C/FAN-40F-1-D fan tray specifications

Item	FAN-40B-1-C	FAN-40F-1-D	FAN-40B-1-D
Dimensions (H × W × D)	40 × 40 × 136 mm (1.57 × 1.57 × 5.35 in), including the handle	40 × 40 × 136 mm (1.57 × 1.57 × 5.35 in), including the handle	40 × 40 × 136 mm (1.57 × 1.57 × 5.35 in), including the handle
Weight	0.15 kg (0.33 lb)	0.15 kg (0.33 lb)	0.13 kg (0.29 lb)
Airflow direction	Air exhausted from the fan tray faceplate	Air drawn in from the fan tray faceplate	Air exhausted from the fan tray faceplate
Max fan speed	29000 R.P.M	29000 R.P.M	21000 R.P.M
Max airflow	38 CFM (1.08 m^3/min)	38 CFM (1.08 m^3/min)	35 CFM (0.99 m^3/min)
Input voltage	12 V	12 V	12 V
Max power consumption	45 W	45 W	20 W

Expansion modules

The S6850-2C switch provides two expansion slots. The S9850-4C switch provides four expansion slots. Select expansion modules for the switch as required.

You can install an expansion module in any expansion slot on an S6850-2C or S9850-4C switch.

You can install or remove an expansion card when the switch is operating correctly. Do not install or remove an expansion card on a starting switch.

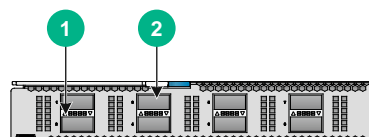**Table3-15 Interface modules available for the S6850-2C and S9850-4C switches**

Interface module model	Description	Interface number and type
LSWM18CQ	8-port QSFP28 interface module	8 × QSFP28 ports

Interface module model	Description	Interface number and type
LSWM18CQMSEC	8-port QSFP28 interface module with MACSec	8 × QSFP28 ports
LSWM116Q	16-port QSFP+ interface module	16 × QSFP+ ports
LSWM18QC	8-port QSFP+ interface module	8 × QSFP+ ports
LSWM124XG2Q	24-port SFP+ and 2-port QSFP+ interface module with MACSec	• 24 × SFP+ ports • 2 × QSFP+ ports
LSWM124XGT2Q	24-port 10GBASE-T and 2-port QSFP+ interface module with MACSec	• 24 × 10GBASE-T ports • 2 × QSFP+ ports
LSWM124XG2QFC	24-port SFP+ and 2-port QSFP+ interface module with FC	• 24 × SFP+ ports • 2 × QSFP+ ports
LSWM124XG2QL	24-port SFP+ and 2-port QSFP+ interface module	• 24 × SFP+ ports • 2 × QSFP+ ports
LSWM124TG2H	24-port SFP28 and 2-port QSFP28 interface module	• 24 × SFP28 ports • 2 × QSFP28 ports
LSWM116FC	16-port SFP28 interface module with FC	16 × SFP28 ports

LSWM18CQ

The LSWM18CQ interface module provides eight QSFP28 ports.

Figure3-11 LSWM18CQ front panel

(1) QSFP28 port LED   (2) QSFP28 port

Ports and LEDs

For information about the ports and modules and cables available for the ports, see "QSFP28 port."

For information about the LEDs, see "QSFP28 port LED."

Technical specifications

Table3-16 Technical specifications

Item	Specifications
Dimensions (H × W × D)	40.1 × 214 × 274 mm (1.58 × 8.43 × 10.79 in), including the connector but excluding the ejector lever
Weight	2 kg (4.41 lb)
Power consumption (static)	19 W
Power consumption (typical)	48 W
Power consumption (fully loaded)	78 W

LSWM18CQMSEC

The LSWM18CQMSEC interface module provides eight QSFP28 ports that all support MACsec.

Figure3-12 LSWM18CQMSEC front panel

(1) QSFP28 port LED	(2) QSFP28 port

Ports and LEDs

For information about the ports and modules and cables available for the ports, see "QSFP28 port."

For information about the LEDs, see "QSFP28 port LED."

Technical specifications

Table3-17 Technical specifications

Item	Specifications
Dimensions (H × W × D)	40.1 × 214 × 274 mm (1.58 × 8.43 × 10.79 in), including the connector but excluding the ejector lever
Weight	2 kg (4.41 lb)
Power consumption (static)	48 W
Power consumption (typical)	70 W
Power consumption (fully loaded)	93 W

LSWM116Q

The LSWM116Q interface module provides 16 QSFP+ ports.

Figure3-13 LSWM116Q front panel

(1) QSFP+ port LED	(2) QSFP+ port

Ports and LEDs

For information about the ports and modules and cables available for the ports, see "QSFP+ port."

For information about the LEDs, see "QSFP+ port LED."

Technical specifications

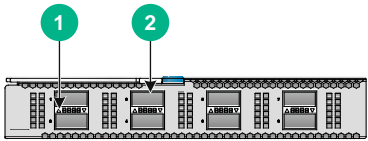**Table3-18 Technical specifications**

Item	Specifications
Dimensions (H × W × D)	40.1 × 214 × 274 mm (1.58 × 8.43 × 10.79 in), including the connector but excluding the ejector lever
Weight	2 kg (4.41 lb)
Power consumption (static)	15 W
Power consumption (typical)	37 W
Power consumption (fully loaded)	60 W

LSWM18QC

The LSWM18QC interface module provides eight QSFP+ ports.

Figure3-14 LSWM18QC front panel

(1) QSFP+ port LED	(2) QSFP+ port

Ports and LEDs

For information about the ports and modules and cables available for the ports, see "QSFP+ port."

For information about the LEDs, see "QSFP+ port LED."

Technical specifications

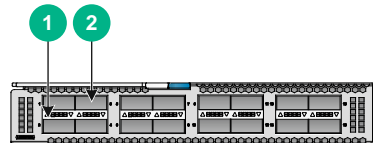**Table3-19 Technical specifications**

Item	Specifications
Dimensions (H × W × D)	40.1 × 214 × 274 mm (1.58 × 8.43 × 10.79 in), including the connector but excluding the ejector lever
Weight	2 kg (4.41 lb)
Power consumption (static)	15 W
Power consumption (typical)	22 W
Power consumption (fully loaded)	30 W

LSWM124XG2Q

The LSWM124XG2Q interface module provides 24 SFP+ ports and 2 QSFP+ ports. All SFP+ ports support MACsec.

Figure3-15 LSWM124XG2Q front panel

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

Ports and LEDs

For information about the ports and modules and cables available for the ports, see "SFP+ port" and "QSFP+ port."

For information about the LEDs, see "SFP+ port LED" and "QSFP+ port LED."

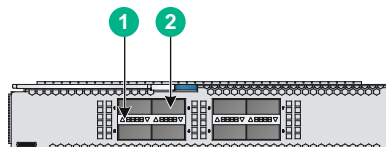## Technical specifications

Table3-20 Technical specifications

Item	Specifications
Dimensions (H × W × D)	40.1 × 214 × 274 mm (1.58 × 8.43 × 10.79 in), including the connector but excluding the ejector lever
Weight	2 kg (4.41 lb)
Power consumption (static)	40 W
Power consumption (typical)	50 W
Power consumption (fully loaded)	60 W

LSWM124XGT2Q

The LSWM124XGT2Q interface module provides twenty-four 10GBASE-T ports and two QSFP+ ports. All 10GBASE-T ports support MACsec.

Figure3-16 LSWM124XGT2Q front panel

(1) 10GBASE-T port LED	(2) QSFP+ port LED
(3) QSFP+ port	(4) 10GBASE-T port

Ports and LEDs

For information about the ports and modules and cables available for the ports, see "10GBASE-T Ethernet port" and "QSFP+ port."

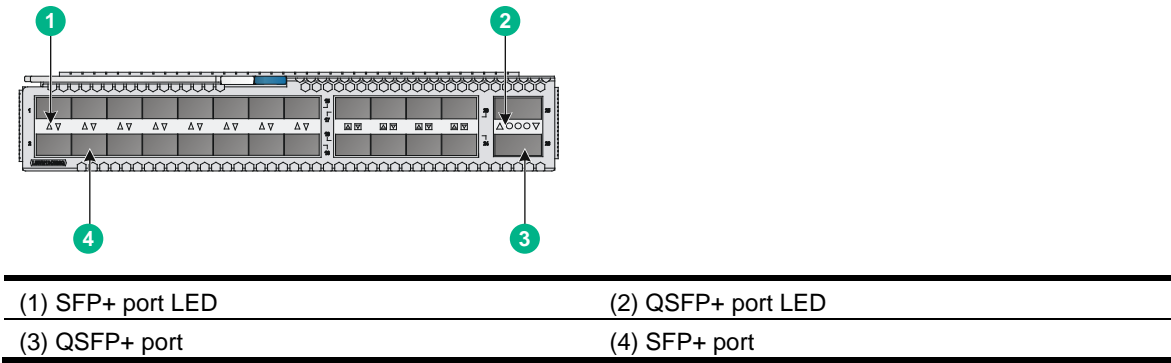For information about the LEDs, see "1/10GBase-T autosensing Ethernet port LEDs" and "QSFP+ port LED."

Technical specifications

Item	Specifications
Dimensions (H × W × D)	40.1 × 214 × 274 mm (1.58 × 8.43 × 10.79 in), including the connector but excluding the ejector lever
Weight	3 kg (6.61 lb)
Power consumption (static)	40 W
Power consumption (typical)	81 W
Power consumption (fully loaded)	123 W

LSWM124XG2QFC

The LSWM124XG2QFC interface module provides 24 SFP+ ports and 2 QSFP+ ports. The SFP+ ports can operate as Ethernet interfaces or FC interfaces.

Figure3-17 LSWM124XG2QFC front panel
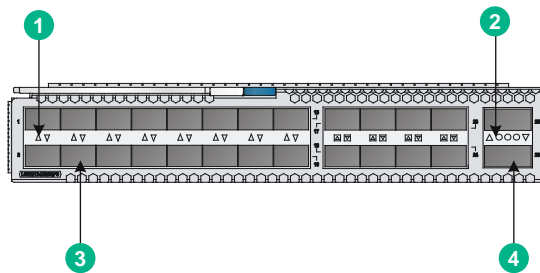
(1) SFP+ port LED	(2) QSFP+ port LED
(3) QSFP+ port	(4) SFP+ port

Ports and LEDs

For information about the ports and modules and cables available for the ports, see "SFP+ port," "FC interfaces," and "QSFP+ port."

For information about the LEDs, see "SFP+ port LED" and "QSFP+ port LED."

Technical specifications

Table3-21 Technical specifications

Item	Specifications
Dimensions (H × W × D)	40.1 × 214 × 274 mm (1.58 × 8.43 × 10.79 in), including the connector but excluding the ejector lever
Weight	2 kg (4.41 lb)
Power consumption (static)	40 W
Power consumption (typical)	50 W
Power consumption (fully loaded)	60 W

LSWM124XG2QL

The LSWM124XG2QL interface module provides 24 SFP+ ports and 2 QSFP+ ports.

Figure3-18 LSWM124XG2QL front panel

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

Ports and LEDs

For information about the ports and modules and cables available for the ports, see "SFP+ port" and "QSFP+ port."

For information about the LEDs, see "SFP+ port LED" and "QSFP+ port LED."
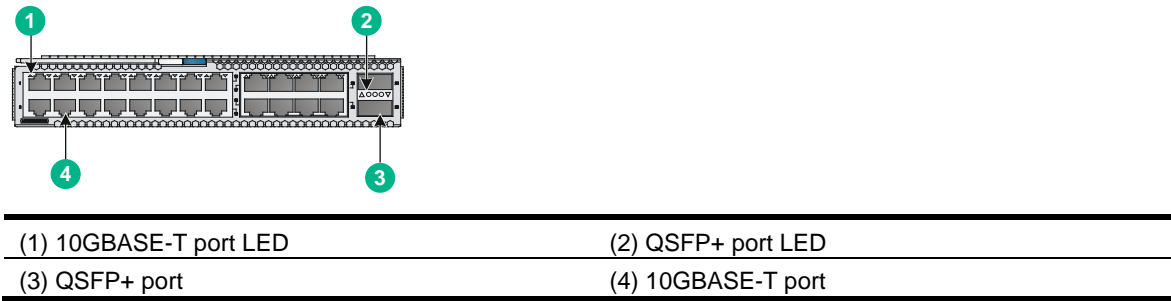
Technical specifications

Table3-22 Technical specifications

Item	Specifications
Dimensions (H x W x D)	40.1 x 214 x 274 mm (1.58 x 8.43 x 10.79 in), including the connector but excluding the ejector lever
Weight	2 kg (4.41 lb)
Power consumption (static)	20 W
Power consumption (typical)	28 W
Power consumption (fully loaded)	36 W

LSWM124TG2H

The LSWM124TG2H interface module provides 24 SFP28 ports and 2 QSFP28 ports.

Figure3-19 LSWM124TG2H interface module

SFP28 port   SFP28 port LED   QSFP28 port   QSFP28 port LED

Ports and LEDs

For information about the ports and modules and cables available for the ports, see "SFP28 port" and "QSFP28 port."

For information about the LEDs, see "SFP28 port LED" and "QSFP28 port LED."
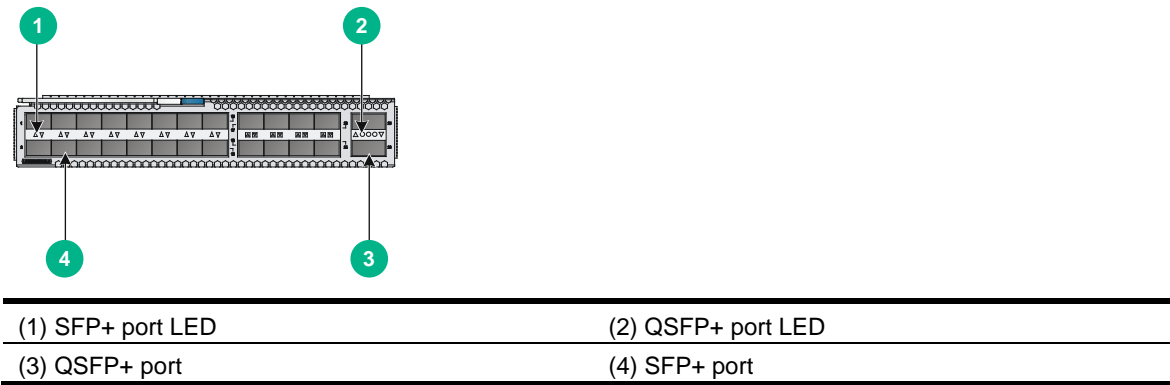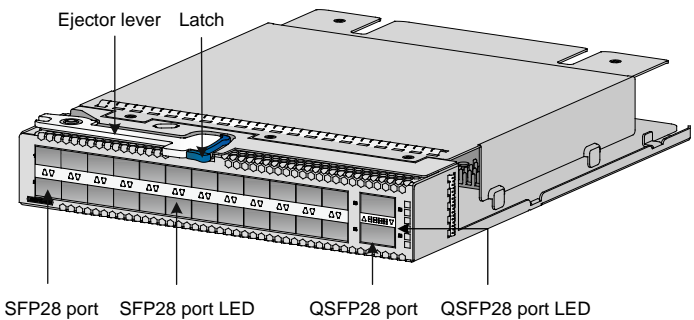
Technical specifications

Table3-23 Technical specifications

Item	Specifications
Dimensions (H × W × D)	40.1 × 214 × 274 mm (1.58 × 8.43 × 10.79 in), including the connector but excluding the ejector lever
Weight	2 kg (4.41 lb)
Power consumption (static)	19 W
Power consumption (typical)	48 W
Power consumption (fully loaded)	78 W

LSWM116FC

The LSWM116FC interface module provides 16 SFP28 ports. The SFP28 ports can operate as Ethernet interfaces or FC interfaces. When they operate as FC interfaces, they support fiber transceiver modules operating at different speeds and provide the FC service.

Figure3-20 LSWM116FC front panel

(1) SFP28 port LED	(2) SFP28 port

Ports and LEDs

For information about the ports and modules and cables available for the ports, see "SFP28 port" and "FC interfaces."

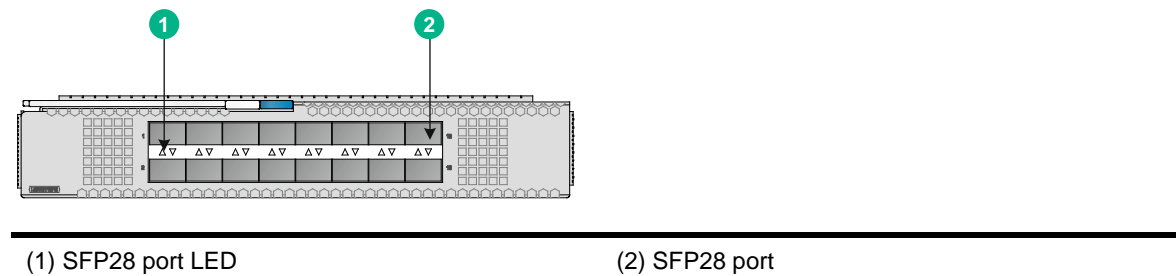For information about the LEDs, see "SFP28 port LED."

Technical specifications

Item	Specifications
Dimensions (H × W × D)	40.1 × 214 × 274 mm (1.58 × 8.43 × 10.79 in), including the connector but excluding the ejector lever
Weight	2 kg (4.41 lb)
Power consumption (static)	15 W
Power consumption (typical)	37 W
Power consumption (fully loaded)	60 W

4 Ports

As a best practice, use H3C transceiver modules and cables for the switch. H3C transceiver modules and cables are subject to change over time. For the most up-to-date list of H3C transceiver modules and cables, contact H3C Support or marketing staff. For information about the specifications and views of H3C transceiver modules and cables, see *H3C Transceiver Modules User Guide*.

Console port

Each switch model (except the LS-6850-56HF-H3) has two console ports: one serial console port and one mini USB console port. The LS-6850-56HF-H3 switch has one serial console port.

Table4-1 Console port specifications

Item	Console port	Mini USB console port
Connector type	RJ-45	USB mini-Type B
Compliant standard	EIA/TIA-232	USB 2.0
Operating mode	Duplex Universal Asynchronous Receiver/Transmitter (Duplex UART)	Mini USB interface UART (Universal Asynchronous Receiver/Transmitter)
Transmission baud rate	9600 bps (default) to 115200 bps	
Services	• Provides connection to an ASCII terminal. • Provides connection to the serial port of a local PC running terminal emulation program.	• Provides connection to an ASCII terminal. • Provides connection to the USB port of a local PC running terminal emulation program.

A console port and a mini USB console port cannot be connected simultaneously. If both ports are connected, only the mini USB console port takes effect.

Management Ethernet port

Each switch model (except the LS-6850-56HF-H3) has two management Ethernet ports: one copper management port and one SFP management port. The LS-6850-56HF-H3 switch has one copper management port. You can connect the ports to a local PC for software loading and debugging or to a remote management station for remote management.

Table4-2 Management Ethernet port specifications

Item	Specification
Connector type	• 10/100/1000BASE-T management port: RJ-45. • SFP management port: LC.
Compliant standard	• 10/100/1000BASE-T management port: IEEE802.3ab. • SFP management port: IEEE802.3z.
Port transmission rate	• 10/100/1000BASE-T management port: o 10/100 Mbps, half/full duplex, MDI/MDI-X autosensing. o 1000 Mbps, full duplex, MDI/MDI-X autosensing.

Item	Specification
	• SFP management port: 1000/100 Mbps, full duplex.
Transmission medium and max transmission distance	• 10/100/1000BASE-T management port: 100 m (328.08 ft) over category-5 UTP cable • SFP management port: See 100-Megabit transceiver modules in Table4-3 and Gigabit transceiver modules in Table4-4
Functions and services	Software upgrade and network management.

Table4-3 FE SFP transceiver modules

FE SFP transceiver module	Central wavelength (nm)	Connector	Fiber type and diameter (μm)	Max transmission distance
SFP-FE-SX-MM1310-A	1310	LC	Multi-mode, 50/125	2 km (1.24 miles)
			Multi-mode, 62.5/125	
SFP-FE-LX-SM1310-A	1310	LC	Single-mode, 9/125	15 km (9.32 miles)

Table4-4 GE SFP transceiver modules

GE SFP transceiver module	Central wavelength (nm)	Connector	Fiber type and diameter (μm)	Modal bandwidth (MHz*km)	Max transmission distance
SFP-GE-T SFP-GE-T-D	N/A	RJ-45	Twisted pair cable	N/A	100 m (328.08 ft)
SFP-GE-SX-MM850-A SFP-GE-SX-MM850-D	850	LC	Multi-mode, 50/125	500	550 m (1804.46 ft)
				400	500 m (1640.42 ft)
			Multi-mode, 62.5/125	200	275 m (902.23 ft)
				160	200 m (656.17 ft)
SFP-GE-LX-SM1310-A	1310	LC	Single-mode, 9/125	N/A	10 km (6.21 miles)
			Multi-mode, 50/125	500/400	550 m (1804.46 ft)
			Multi-mode, 62.5/125	500	550 m (1804.46 ft)
SFP-GE-LX-SM1310-D	1310	LC	Single-mode, 9/125	N/A	10 km (6.21 miles)

USB port

The switch has one OHCI-compliant USB 2.0 port that can upload and download data at a rate up to 480 Mbps. You can use this USB port to access the file system on the Flash of the switch, for example, to upload or download application and configuration files.

The USB port supplies power as per USB 2.0 specifications. Use only USB 2.0-compliant USB devices for the USB port. The port might not identity USB devices that are not compliant with USB 2.0.

NOTE:

USB devices from different vendors vary in compatibilities and drivers. H3C does not guarantee correct operation of USB devices from other vendors on the switch. If a USB device fails to operate on the switch, replace it with one from another vendor.

QSFP28 port

Item	Specification
Interface name	40 GE/100 GE QSFP28 Ethernet optical interface
Product compatibility	• S6850-56HF and S6850-56HF-SAN switches: Each 8 QSFP28 ports on the front panel • S6850-2C switch: 2 QSFP28 ports on the rear panel • S9850-32H switch: 32 QSFP28 ports on the front panel • LSWM18CQ interface module: 8 QSFP28 ports • LSWM124TG2H interface module: 2 QSFP28 ports • LSWM18CQMSEC interface module: 8 QSFP28 ports
Connector	LC/MPO
Description	The 40 GE/100 GE QSFP28 Ethernet optical interfaces are mainly used for transmitting and receiving 40 GE/100 GE Ethernet optical interface services
Compliant standard	IEEE802.3ba
Optical interface attribute	Depending on transceiver modules and cables
Operating mode	Full duplex

Transceiver modules and cables	• 100G QSFP28 transceiver modules
	• 100G QSFP28 copper cables
	• 100G QSFP28 fiber cables (AOC)
	• 100G QSFP28 to 4*25G SFP28 copper cables
	• 40G QSFP+ transceiver modules
	• 40G QSFP+ copper cables
	• 40G QSFP+ fiber cables (AOC)
	• 40G QSFP+ to 4*10G SFP+ copper cables
	• With a QSFP+ to SFP+ adapter installed in a QSFP28 port, the QSFP28 port supports SFP+ transceiver modules:
	  ○ Before using a QSFP+ to SFP+ adapter, execute the `using tengige` command on the QSFP28 port where the adapter is to be installed
	  ○ The QSFP+ to SFP+ adapter is available only in R6555 and later versions
	NOTE:
	For information about support for transceiver modules and cables of a QSFP28 port, see *H3C S6850 & S9850 Switch Series Transceiver Module Compatibility Matrix*

Item	Specification
	You can use a QSFP-40G-SR4-MM850 or QSFP-40G-CSR4-MM850 transceiver module to connect one 100G QSFP28 port to four 10G SFP+ ports. The QSFP+ transceiver module and SFP+ transceiver modules to be connected must be the same in specifications, including central wavelength and fiber type
Support for splitting	A QSFP28 port can be split into four 25G interfaces or four 10G interfaces, except in the following situations: • Interface numbered 31 on the S6850-56HF (excluding the LS-6850-56HF-H3) and S6850-56HF-SAN switches cannot be split into four interfaces • The interface numbered 31 on an S9850-32H switch cannot be split by default. To split this interface, first enable the hardware resource flex mode for the device by using the `hardware-resource flex-mode enable` command. For more information about the hardware resource flex mode, see device management configuration in *H3C S6805 & S6825 & S6850 & S9850 Switch Series Fundamentals Configuration Guide*. Only F6633 and later versions support port splitting of the interface numbered 31 on an S9850-32H switch • When the LSWM18CQ or LSWM18CQMSEC interface module is installed in slot 2 on the S9850-4C switch, interface numbered 7 on the interface module cannot be split into four interfaces • When the LSWM124TG2H interface module is installed in slot 2 on the S9850-4C switch, the interface numbered 25 on the interface module cannot be split into four interfaces
Other restrictions	A 100G port on the device might fail to come up when a 100G DAC cable is used to connect the port to an Intel network card, for example, Intel (rainbow) Eth E810-CQDA. As a best practice, use an AOC cable or transceiver module for connection to the Intel network card

QSFP+ port

Item	Specification
Interface name	40 GE QSFP+ Ethernet optical interface
Product compatibility	• LSWM116Q interface module: 16 QSFP+ ports • LSWM18QC interface modules: 8 QSFP+ ports • LSWM124XG2Q, LSWM124XG2QFC, LSWM124XG2QL, and LSWM124XGT2Q interface modules: Each 2 QSFP+ ports
Connector	LC/MPO
Description	The 40 GE/100 GE QSFP+ Ethernet optical interfaces are mainly used for transmitting and receiving 40 GE/100 GE Ethernet optical interface services
Compliant standard	IEEE802.3ba
Optical interface attribute	Depending on transceiver modules and cables
Operating mode	Full duplex
Transceiver modules and cables	• 40G QSFP+ transceiver modules • 40G QSFP+ copper cables • 40G QSFP+ fiber cables (AOC) • 40G QSFP+ to 4*10G SFP+ copper cables • With a QSFP+ to SFP+ adapter installed in a QSFP28 port, the QSFP28 port supports SFP+ transceiver modules • Before using a QSFP+ to SFP+ adapter, execute the `using tengige`

Item	Specification
	command on the QSFP28 port where the adapter is to be installed • The QSFP+ to SFP+ adapter is available only in R6555 and later versions • With a QSFP+ to SFP+ adapter installed in a QSFP+ port, the QSFP+ port supports 10 SFP+ transceiver modules: ○ Before using a QSFP+ to SFP+ adapter, execute the **using tengige** command on the QSFP+ port where the adapter is to be installed ○ The QSFP+ to SFP+ adapter is available only in R6555 and later versions **NOTE:** For information about support for transceiver modules and cables of a QSFP+ port, see *H3C S6850 & S9850 Switch Series Transceiver Module Compatibility Matrix* You can use a QSFP-40G-SR4-MM850 or QSFP-40G-CSR4-MM850 transceiver module to connect a 40G QSFP+ port to four 10G SFP+ ports. The QSFP+ transceiver module and SFP+ transceiver modules to be connected must be the same in specifications, including central wavelength and fiber type
Support for splitting	A QSFP+ port can be split into four 10G interfaces, except in the following situations: • QSFP+ ports on the LSWM116Q interface module cannot be split into four interfaces • When you install the LSWM18QC interface module in slot 2 on the S9850-4C switch, interface numbered 8 on the interface module cannot be split into four interfaces • When you install the LSWM124XG2Q, LSWM124XG2QFC, LSWM124XG2QL, or LSWM124XGT2Q interface module in slot 2 on the S9850-4C switch, interface numbered 25 cannot be split into four interfaces

SFP28 port

Item	Specification
Interface name	25 GE SFP28 Ethernet optical interface
Product compatibility	• S6850-56HF and S6850-56HF-SAN switches: Each 48 SFP28 ports • LSWM124TG2H interface module: 24 SFP28 ports • LSWM116FC interface module: 16 SFP28 ports
Connector	LC
Description	The 25 GE SFP28 Ethernet optical interfaces support 10 GE/1 GE autosensing and are mainly used for transmitting and receiving 25 GE/10 GE/1 GE Ethernet optical interface services
Compliant standard	IEEE802.3by
Optical interface attribute	Depending on transceiver modules and cables
Operating mode	• To use an SFP28 or SFP+ copper cable to connect an SFP28 port on an S6850-56HF or S6850-56HF-SAN switch to a peer port that does not support speed and duplex autonegotiation, you must configure the same duplex mode and speed for the two ports. The speed must be the same as that of the transceiver module installed in the port • The SFP28 ports on an LSWM124TG2H interface module do not support speed and duplex autonegotiation. To use an SFP+ transceiver module, SFP+ cable, or SFP transceiver module to connect an SFP28 port on an LSWM124TG2H interface module to a peer port, you must configure the same duplex mode and speed for the two ports. The speed must be the same as that of the transceiver module installed in the port • When an interface on the LSWM116FC acts as an Ethernet interface, it can

Item	Specification
	only operate at 25 Gbps in full duplex mode and does not support speed and duplex autonegotiation • To use an SFP transceiver module except for an SFP-GE-T or SFP-GE-T-D transceiver module, make sure the autonegotiation feature is disabled on the peer port • For more information about SFP28 port configurations, see Ethernet interface configuration in *H3C S6805 & S6825 & S6850 & S9850 Switch Series Layer 2—LAN Switching Configuration Guide*
Transceiver modules and cables	• S6850-56HF and S6850-56HF-SAN switches support 25G SFP28 transceiver modules/cables, 10G SFP+ transceiver modules/cables, and 1G SFP transceiver modules • The LSWM124TG2H interface module supports 25G SFP28 transceiver modules/cables, 10G SFP+ transceiver modules/cables, and 1G SFP transceiver modules • LSWM116FC interface modules support only SFP-25G-LR-SM1310 transceiver modules **NOTE:** For information about support for transceiver modules and cables of an SFP28 port, see *H3C S6850 & S9850 Switch Series Transceiver Module Compatibility Matrix* You must use two BIDI transceiver modules in pairs. For example, if one end uses the SFP-XG-LX-SM1270-BIDI transceiver module, the peer end must use the SFP-XG-LX-SM1330-BIDI transceiver module The maximum transmission distance for SFP-25G-SR-MM850 depends on the enabling status of FEC negotiation, as shown in Table4-5. For more information about FEC negotiation, see Ethernet interface configuration in *H3C S6805 & S6825 & S6850 & S9850 Switch Series Layer 2—LAN Switching Configuration Guide*

Other restrictions	• The LS-6850-56HF, LS-6850-56HF-H1, or S6850-56HF-SAN switch supports a maximum of eight long-haul SFP+ transceiver modules. If you install LSWM124TG2H interface modules on the S6850-2C or S9850-4C switch, each interface module supports a maximum of eight long-haul SFP+ transceiver modules. The available long-haul SFP+ transceiver module models are as follows:
	  ◦ SFP-XG-LH40-SM1550
	  ◦ SFP-XG-LH40-SM1550-D
	  ◦ SFP-XG-LH80-SM1550
	  ◦ SFP-XG-LH80-SM1550-D
	• Installed with an SFP-GE-T or SFP-GE-T-D transceiver module, an SFP28 port can operate only at 1 Gbps
	• If the switch connects to the peer device through an SFP-GE-T or SFP-GE-T-D transceiver module, packet loss occurs when the switch restarts, because the peer interface comes up before the local interface can come up. As a best practice, configure dynamic link aggregation to avoid such an issue if the switch is connected to the peer device through an aggregate link

Table4-5 Maximum transmission distance for SFP-25G-SR-MM850

SFP28 transceiver module	Central wavelength (nm)	Connector	Fiber type and diameter (µm)	Modal bandwidth (MHz*km)	Maximum transmission distance
SFP-25G-SR-MM850	850	LC	Multi-mode, 50/125	2000	• FEC negotiation disabled: 30 m (98.43 ft) • FEC negotiation enabled: 70 (229.66 ft)

SFP28 transceiver module	Central wavelength (nm)	Connector	Fiber type and diameter (µm)	Modal bandwidth (MHz*km)	Maximum transmission distance
				4700	• FEC negotiation disabled: 40 m (131.23 ft) • FEC negotiation enabled: 100 m (328.08 ft)

SFP+ port

Item	Specification
Interface name	10 GE SFP+ Ethernet optical interface
Product compatibility	LSWM124XG2Q, LSWM124XG2QFC, and LSWM124XG2QL interface modules each provide 24 SFP+ ports
Connector	LC
Description	The 10 GE SFP+ Ethernet optical interfaces are mainly used for transmitting and receiving GE/10 GE Ethernet optical interface services
Compliant standard	IEEE802.3ae
Optical interface attribute	Depending on transceiver modules and cables
Operating mode	• LSWM124XG2Q and LSWM124XG2QFC interface modules support 1000 Mbit/s, 10 Gbps autosensing, and full duplex • SFP+ ports on an LSWM124XG2QL interface module do not support rate and duplex autonegotiation. To use a GE SFP transceiver module to connect an SFP+ port on an LSWM124XG2QL interface module to a peer port, you must configure the **speed** 1000 and **duplex full** commands on both ports • To use an SFP transceiver module except for an SFP-GE-T or SFP-GE-T-D transceiver module, make sure the autonegotiation feature is disabled on the peer port
Transceiver modules and cables	• 10G SFP+ transceiver modules • 10G SFP+ copper cables • 10G SFP+ fiber cables (AOC) • 1G SFP transceiver modules **NOTE:** For information about support for transceiver modules and cables of an SPF+ port, see *H3C S6850 & S9850 Switch Series Transceiver Module Compatibility Matrix*
Other restrictions	• Installed with an SFP-GE-T or SFP-GE-T-D transceiver module, an SFP+ port can operate only at 1 Gbps • If the switch connects to the peer device through an SFP-GE-T or SFP-GE-T-D transceiver module, packet loss occurs when the switch restarts, because the peer interface comes up before the local interface can come up. As a best practice, configure dynamic link aggregation to avoid such an issue if the switch is connected to the peer device through an aggregate link

SFP port

Item	Specification
Interface name	1 GE SFP Ethernet optical interface
Product compatibility	LS-6850-56HF, LS-6850-56HF-H1, S6850-56HF-SAN, S6850-32H, and S9850-4C switches each provide 2 SFP ports on the rear panel
Connector	LC/RJ-45
Description	The 1 GE SFP Ethernet interfaces support 100/1000 Mbps autosensing and are mainly used for transmitting and receiving GE/FE Ethernet optical interface services
Compliant standard	IEEE802.3ab
Optical interface attribute	Depending on transceiver modules and cables
Operating mode	1000 Mbps, 100 Mbps autosensing, full duplex
Transceiver modules and cables	- GE SFP transceiver modules - FE SFP transceiver modules **NOTE:** For information about support for transceiver modules and cables of an SPF port, see *H3C S6850 & S9850 Switch Series Transceiver Module Compatibility Matrix*
Other restrictions	- Installed with an SFP-GE-T or SFP-GE-T-D transceiver module, an SFP port can operate only at 1 Gbps - If the switch connects to the peer device through an SFP-GE-T or SFP-GE-T-D transceiver module, packet loss occurs when the switch restarts, because the peer interface comes up before the local interface can come up. As a best practice, configure dynamic link aggregation to avoid such an issue if the switch is connected to the peer device through an aggregate link

FC interfaces

A port on an LSWM116FC interface module can operate as an Ethernet interface or FC interface. When it operates as an FC interface, it supports 8G/16G/32G FC modules. For the transceiver modules and cables available for the FC interfaces, see *H3C S6850 & S9850 Switch Series Transceiver Module Compatibility Matrix*.

The 24 SFP+ ports on an LSWM124XG2QFC can operate as Ethernet interfaces or FC interfaces. When such an SFP+ port operates as an FC interface, it supports 8G FC modules SFP-FC-8G-SW-MM850 and SFP-FC-8G-LW-SM1310.

To change the port type between a Layer 2 Ethernet interface and an FC interface, execute the **port-type** command in Layer 2 Ethernet interface view. For more information, see FC and FCoE configuration in *H3C S6805 & S6825 & S6850 & S9850 Switch Series Configuration Guide*.

After an interface on an LSWM116FC interface module is changed to an FC interface, the FC interface can operate at 8 Gbps, 16 Gbps, or 32 Gbps, depending on the speed of the installed transceiver module.

An LSWM116FC interface module has 16 interfaces, and every two neighboring interfaces belong to one port group. If you change an Ethernet interface to an FC interface by using the **port-type fc** command, the other interface in the same port group is also changed to an FC interface. If you change an FC interface to an Ethernet interface by using the **port-type ethernet** command, the other interface in the same port group is also changed to an Ethernet interface.

10GBASE-T Ethernet port

Item	Specification
Interface name	10GBASE-T Ethernet interface
Product compatibility	The LSWM124XGT2Q interface module supports 24 10GBASE-T Ethernet interfaces
Connector	RJ-45
Description	The 10GBASE-T Ethernet interfaces are mainly used for transmitting and receiving GE/10 GE Ethernet electrical interface services
Compliant standard	IEEE802.3an, IEEE802.3az
Interface attribute and operating mode	• 1 Gbps, full duplex • 10 Gbps, full duplex • MDI/MDI-X autosensing
Max transmission distance	• Category-6 UTP cable: 55 m • Category-6 STP cable: 100 m • Category-6A or above twisted pair cables: 100 m
Cables	Category 6 or above twisted pair cables. Both straight-through cables and crossover cables are available

5 LEDs

System status LED

The system status LED shows the operating status of the switch.

Table5-1 System status LED description

LED mark	Status	Description
SYS	Steady green	The switch is operating correctly.
	Flashing green	The switch is performing power-on self test (POST).
	Steady red	The system POST has failed or a system failure has occurred.
	Flashing red	Some ports failed in POST and do not work. NOTE: The system does not perform POST if the BootWare boot mode is fast mode.
	Flashing blue (3 Hz)	Helps you to locate the switch. To locate the switch in the rack, execute the `locator blink` *blink-time* command. The LED then flashes blue at 3 Hz.
	Off	The switch is powered off or has failed to start up.

QSFP28 port LED

Table5-2 QSFP28 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 100 Gbps.
Flashing green	The port is sending or receiving data at 100 Gbps.
Steady yellow	A transceiver module or cable has been correctly installed. The port has a link and is operating at 10 Gbps, 25 Gbps, or 40 Gbps.
Flashing yellow (3 Hz)	The port is sending or receiving data at 10 Gbps, 25 Gbps, or 40 Gbps.
Off	No transceiver module or cable has been installed or no link is present on the port.

QSFP+ port LED

Each QSFP+ port has a status LED to show its operating status and activities.

Table5-3 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.

LED status	Description
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.

SFP28 port LED

Table5-4 SFP28 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 the maximum speed.
Flashing green	The port is sending or receiving data at the maximum speed.
Steady yellow	A transceiver module or cable has been correctly installed. The port has a link and is operating at a speed lower than the maximum speed.
Flashing yellow (3 Hz)	The port is sending or receiving data at a speed lower than the maximum speed.
Off	No transceiver module or cable has been installed or no link is present on the port.

SFP+ port LED

Each SFP+ port has a status LED to show port operating status and activities.

Table5-5 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 (3 Hz)	The port is sending or receiving data at 1 Gbps.
Off	No transceiver module or cable has been installed or no link is present on the port.

1/10GBase-T autosensing Ethernet port LEDs

Table5-6 Description for 1/10GBase-T autosensing Ethernet port LEDs

LED status	Description
Steady green	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	The port has a link and is operating at 1 Gbps.

LED status	Description
Flashing yellow	The port is sending or receiving data at 1 Gbps.
Off	No link is present on the port.

SFP port LED

Table5-7 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 1 Gbps.
Flashing green	The port is sending or receiving data at 1 Gbps.
Steady yellow	A transceiver module or cable has been correctly installed. The port has a link and is operating at 100 Mbps.
Flashing yellow (3 Hz)	The port is sending or receiving data at 100 Mbps.
Off	No transceiver module or cable has been installed or no link is present on the port.

Management Ethernet port LEDs

Each switch model (except the LS-6850-56HF-H3) provides two status LEDs LINK and ACT for the copper management Ethernet port and one double-color LED LINK/ACT for the fiber management Ethernet port. The LS-6850-56HF-H3 switch provides a LINK/ACT status LED for the copper management Ethernet port.

Table5-8 Copper management Ethernet port LED description for switch models except the LS-6850-56HF-H3

LED mark	Status	Description
LINK	Off	No link is present on the port
	Steady green	The port is operating at 10/100/1000 Mbps.
ACT	Off	The port is not receiving or sending data.
	Flashing yellow	The port is sending or receiving data.

Table5-9 Fiber management Ethernet port LED description for switch models except the LS-6850-56HF-H3

LED mark	Status	Description
LINK/ACT	Off	No link is present on the port.
	Steady green	The port is operating at 1000 Mbps.
	Flashing green	The port is receiving or sending data at 1000 Mbps.
	Steady yellow	The port is operating at 100 Mbps.
	Flashing yellow	The port is receiving or sending data at 100 Mbps.

Table5-10 Copper management Ethernet port LED description for the LS-6850-56HF-H3 switch

LED mark	Status	Description
LINK/ACT	Steady green	The port is operating at 10/100/1000 Mbps.
	Steady green and flashing yellow	The port is receiving or sending data.
	Off	No link is present on the port

Power module LEDs

The LSVM1AC650, LSVM1DC650, SW-A-PSR550-12A-B, SW-B-PSR550-12A-B, and PSR800-12D-S power modules each provide a power module LED on the panel to show the power input status and power output status. For more information about LED status, see Table5-11.

Table5-11 LED description for the LSVM1AC650 and LSVM1DC650 power modules

LED status	Description
Steady green	The power module is operating correctly and is a primary power module.
Flashing green	The power module is operating correctly and is a secondary power module.
Steady red	The power module is faulty or enters protection state.
Alternating between red and green	An alarm occurs on the power module when one of the following conditions exists on the power module but the power module does not enter protection state: • Output overvoltage. • Output undervoltage. • Output overcurrent. • Output power overload. • Overtemperature.
Flashing red	The current power module has no current input. If the device has two power modules installed and one module has current input and the other does not, the LED for the module without current input will flash red.
Off	The power module has no current input.

Table5-12 LED description for the SW-A-PSR550-12A-B, SW-B-PSR550-12A-B, and PSR800-12D-S power modules

LED status	Description
Steady green	The power module is operating correctly.
Flashing green (1 Hz)	Power is being input correctly but the system is not powered on.
Flashing green (0.33 Hz)	The power module is in standby state and does not output power.
Flashing green (2 Hz)	The power module is updating its firmware.
Steady amber	• The power module is faulty. • The power module does not have power input, but the other power module has correct power input.
Flashing amber (1 Hz)	An alarm has occurred on the power module.
Off	No power modules have power input, which can be caused by an incorrect power

LED status	Description
	cord connection or power source shutdown.

Fan tray alarm LEDs

Each fan tray provides an alarm LED. Table5-14 shows the description for the alarm LEDs on the FAN-40B-1-C, FAN-40F-1-D, or FAN-40B-1-D fan tray. For the description of the alarm LEDs on other fan trays, see Table5-13.

Table5-13 Description for the alarm LEDs on the fan trays (1)

Status	Description
On	The fan tray is faulty.
Off	The fan tray is operating correctly or no power is being input.

Table5-14 Description for the alarm LEDs on the fan trays (2)

Status	Description
Steady green	The fan tray is operating correctly.
Steady red	The fan tray is faulty.
Off	The fan tray is not installed securely or no power is present.

Power module status LED

The LS-6850-56HF-H3 switch provides a power module status LED (PSU) to indicate the power module status.

Table5-15 Description for the power module status LED

LED mark	Status	Description
PSU	Steady green	Both power modules are operating correctly.
	Steady yellow	A power module is faulty or not present.
	Off	Both power modules are faulty or not present.

Fan tray status LED

The LS-6850-56HF-H3 switch provides a fan tray status LED (FAN) to indicate the fan tray status.

Table5-16 Description for the fan tray status LED

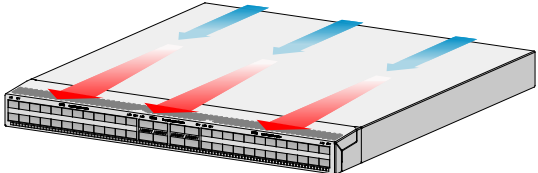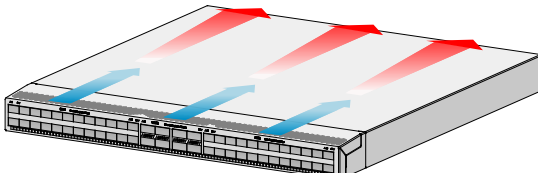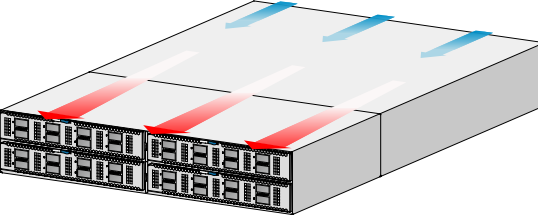| LED mark	Status	Description
FAN	Steady green	All fan trays are operating correctly.
	Steady yellow	A fan tray is faulty or not present.
	Steady red	A minimum or two fan trays are faulty or not present.

6 Cooling system

To dissipate heat timely and ensure system stability, the switch uses the front-rear air aisle cooling system. Consider the site ventilation design when you plan the installation site for the switch.

Table6-1 Cooling system for the switch

Switch model	Available fan trays	Airflow direction
• S6850-56HF • S6850-56HF-SAN • S6850-2C • S9850-32H	LSWM1FANSA LSWM1FANSA-SN FAN-40F-1-D	From the power module side to the port side The following uses LS-6850-56HF as an example:
	LSWM1FANSAB LSWM1FANSAB-SN FAN-40B-1-C FAN-40B-1-D	From the port side to the power module side The following uses LS-6850-56HF as an example:
S9850-4C	LSWM1BFANSC LSWM1BFANSC-SN	From the power module side to the port side
	LSWM1BFANSCB LSWM1BFANSCB-SN	From the port side to the power module side