H3C S9825 & S9855 Switch Series

Hardware Information and Specifications

New H3C Technologies Co., Ltd.
http://www.h3c.com

Document version: 6W103-20250215

Preface

H3C S9825 & S9855 Switch Series Hardware Information and Specifications describes the product models, technical specifications, removable components, ports, LEDs, and cooling system of the *S9825 & S9855* switch Series.

This preface includes the following topics about the documentation:

Audience

This documentation is intended for:

- Network planners.
- Field technical support and servicing engineers.
- Network administrators working with the *S9825 & S9855* switch Series.

Conventions

The following information describes the conventions used in the documentation.

Command conventions

Convention	Description
Boldface	**Bold** text represents commands and keywords that you enter literally as shown.
Italic	*Italic* text represents arguments that you replace with actual values.
[ ]	Square brackets enclose syntax choices (keywords or arguments) that are optional.
{ x | y | ... }	Braces enclose a set of required syntax choices separated by vertical bars, from which you select one.
[x | y | ...]	Square brackets enclose a set of optional syntax choices separated by vertical bars, from which you select one or none.
{ x | y | ... } *	Asterisk marked braces enclose a set of required syntax choices separated by vertical bars, from which you select a minimum of one.
[x | y | ...] *	Asterisk marked square brackets enclose optional syntax choices separated by vertical bars, from which you select one choice, multiple choices, or none.
&<1-n>	The argument or keyword and argument combination before the ampersand (&) sign can be entered 1 to n times.
#	A line that starts with a pound (#) sign is comments.

GUI conventions

Convention	Description
Boldface	Window names, button names, field names, and menu items are in Boldface. For example, the **New User** window opens; click **OK**.
>	Multi-level menus are separated by angle brackets. For example, **File** > **Create** >

Convention	Description
	Folder.

Symbols

Convention	Description
WARNING!	An alert that calls attention to important information that if not understood or followed can result in personal injury.
CAUTION:	An alert that calls attention to important information that if not understood or followed can result in data loss, data corruption, or damage to hardware or software.
IMPORTANT:	An alert that calls attention to essential information.
NOTE:	An alert that contains additional or supplementary information.
TIP:	An alert that provides helpful information.

Network topology icons

Convention	Description
	Represents a generic network device, such as a router, switch, or firewall.
	Represents a routing-capable device, such as a router or Layer 3 switch.
	Represents a generic switch, such as a Layer 2 or Layer 3 switch, or a router that supports Layer 2 forwarding and other Layer 2 features.
	Represents an access controller, a unified wired-WLAN module, or the access controller engine on a unified wired-WLAN switch.
	Represents an access point.
	Represents a wireless terminator unit.
	Represents a wireless terminator.
	Represents a mesh access point.
	Represents omnidirectional signals.
	Represents directional signals.
	Represents a security product, such as a firewall, UTM, multiservice security gateway, or load balancing device.
	Represents a security module, such as a firewall, load balancing, NetStream, SSL VPN, IPS, or ACG module.

Examples provided in this document

Examples in this document might use devices that differ from your device in hardware model, configuration, or software version. It is normal that the port numbers, sample output, screenshots, and other information in the examples differ from what you have on your device.

Documentation feedback

You can e-mail your comments about product documentation to info@h3c.com.

We appreciate your comments.

Contents

1 Product models and technical specifications

Product models

The H3C S9825 & S9855 switch series include the following models:

Series	Product model	Product code
H3C S9825 and S9855 switch series	S9825-64D	LS-9825-64D
	S9825-128B	LS-9825-128B
	S9855-32D	LS-9855-32D
	S9855-48CD8D	LS-9855-48CD8D
	S9855-24B8D	LS-9855-24B8D
	S9855-40B	LS-9855-40B

H3C S9825 and S9855 switch series are a new generation of high-performance and high-density 400GE, 200GE, and 100GE switches launched by H3C for data centers and high-end campuses. The S9825 and S9855 switches provide high-density 400GE, 200GE, 100GE, 25GE, and 10GE ports and support power supply and fan module redundancy. You can deploy them in the new generation of data center core and aggregation networks. By connecting to upstream S12500 core switches through 400GE or 200GE links and to downstream access switches through 200GE, 100GE, or 40GE links, the S9825 and S9855 switches provide high bandwidth and large-capacity server access.

Technical specifications

Table1-1 Technical specifications

Item	S9825-64D	S9825-128B	S9855-48CD8D	S9855-24B8D	S9855-40B	S9855-32D
Dimensions (H × W × D)	175 × 440 × 760 mm (6.89 × 17.32 × 29.92 in)	175 × 442 × 760 mm (6.89 × 17.40 × 29.92 in)	44 × 440 × 660 mm (1.73 × 17.32 × 25.98 in)	44 × 440 × 660 mm (1.73 × 17.32 × 25.98 in)	44 × 440 × 550 mm (1.73 × 17.32 × 21.65 in)	44 × 440 × 660 mm (1.73 × 17.32 × 25.98 in)
Weight	≤ 37 kg (81.57 lb)	≤ 40 kg (88.18 lb)	≤ 12.2 kg (26.90 lb)	≤ 12.2 kg (26.90 lb)	≤ 15.1 kg (33.29 lb)	≤ 15.0 kg (33.07 lb)
Serial console port	1	1	1	1	1	1
Management Ethernet port (RJ-45)	1	1	1	1	1	1

Item	S9825-64D	S9825-128B	S9855-48CD8D	S9855-24B8D	S9855-40B	S9855-32D
USB 2.0 port	1	1	1	1	1	1
SFP+ port	N/A	N/A	N/A	N/A	N/A	2
DSFP port	N/A	N/A	48	N/A	N/A	N/A
QSFP56 port	N/A	128	N/A	24	40	N/A
QSFP-DD	64	N/A	8	8	N/A	32
Fan module slot	6	6	6	6	6	6
Power supply slot	4	4	2	2	2	2
Minimum power consumption	Dual AC inputs: 243 W Four AC inputs: 251 W	Four AC inputs: 262 W	Single AC input: 125 W Dual AC inputs: 140 W	Single AC input: 133 W Dual AC inputs: 146 W	Single AC input: 116 W Dual AC inputs: 127 W	Single AC input: 199 W Single DC input: 221 W Dual AC inputs: 212 W Dual DC inputs: 234 W
Typical power consumption	Dual AC inputs: 613 W Four AC inputs: 630 W	Four AC inputs: 540 W	Single AC input: 238 W Dual AC inputs: 250 W	Single AC input: 251 W Dual AC inputs: 263 W	Single AC input: 246 W Dual AC inputs: 258 W	Single AC input: 422 W Single DC input: 438 W Dual AC inputs: 439 W Dual DC inputs: 476 W
Maximum power consumption	Dual AC inputs: 1852 W Four AC inputs: 1855 W	Four AC inputs: 1708 W	Single AC input: 713 W Dual AC inputs: 719 W	Single AC input: 739 W Dual AC inputs: 748 W	Single AC input: 706 W Dual AC inputs: 709 W	Single AC input: 1096 W Single DC input: 1197 W Dual AC inputs: 1140 W Dual DC inputs: 1265 W
Chassis leakage current compliance	• UL60950-1 • EN60950-1 • IEC60950-1 • GB4943					
Sound	60.9 dB(A)	51.7 dB(A)	59.5 dB(A)	59.5 dB(A)	52.8 dB(A)	67.9 dB(A)

Item	S9825-64D	S9825-128B	S9855-48CD8D	S9855-24B8D	S9855-40B	S9855-32D
pressure level at 27°C (80.6°F)						
Operating temperature	0°C to 40°C (32°F to 104°F)					
Operating humidity	5% RH to 95% RH, noncondensing					
Fire resistance compliance	• UL60950-1 • EN60950-1 • IEC60950-1 • GB4943					

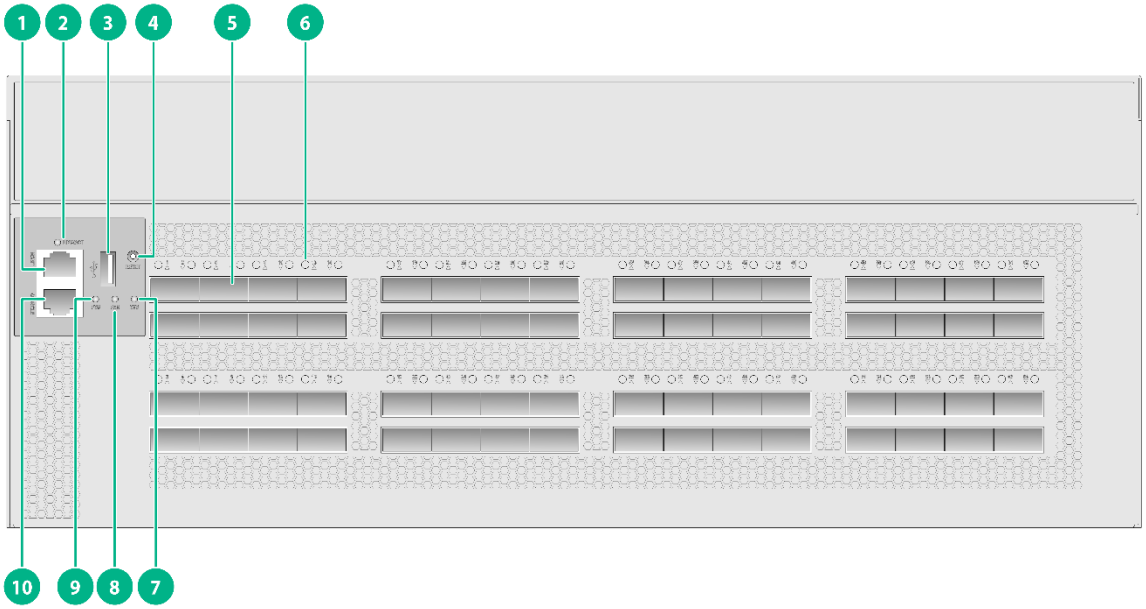
Table1-2 Power consumption data collection standard

Item	Static power consumption	Typical power consumption	Maximum power consumption
Configuration	No transceiver modules/cables installed in ports	Fully configured with copper cables	Fully configured with transceiver modules
Load	N/A	50% load	100% load

2 Chassis views

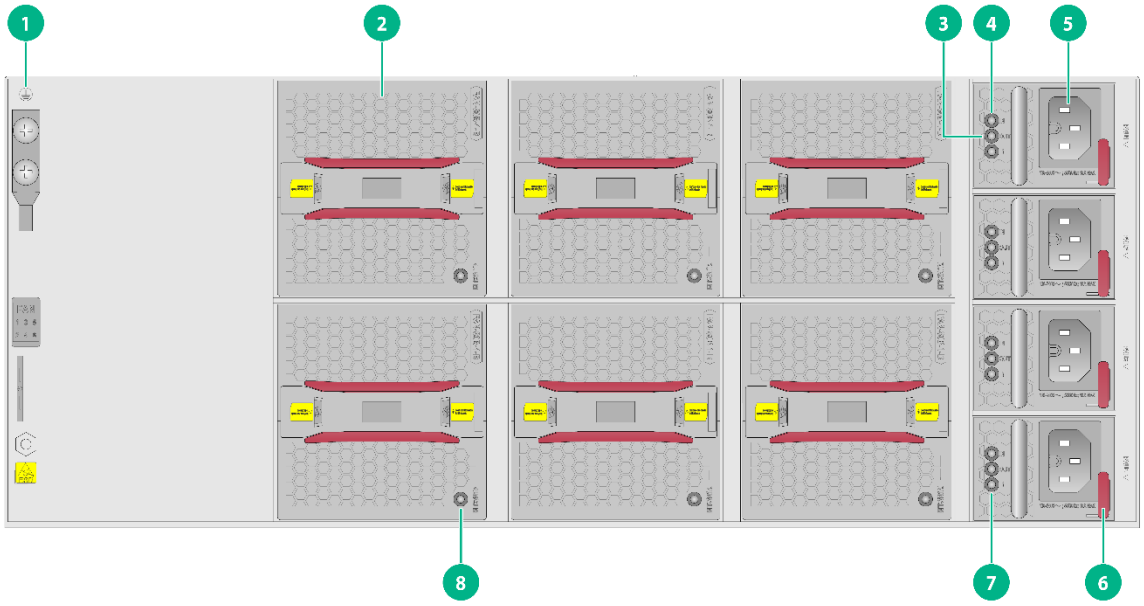
S9825-64D

Figure2-1 S9825-64D front panel



(1) Management Ethernet port	(2) Management Ethernet port LED (LINK/ACT)
(3) USB port	(4) Reset button (RESET)
(5) QSFP-DD port	(6) QSFP-DD port LED
(7) System status LED (SYS)	(8) Fan module status LED (FAN)
(9) Power supply status LED (PSU)	(10) Console port

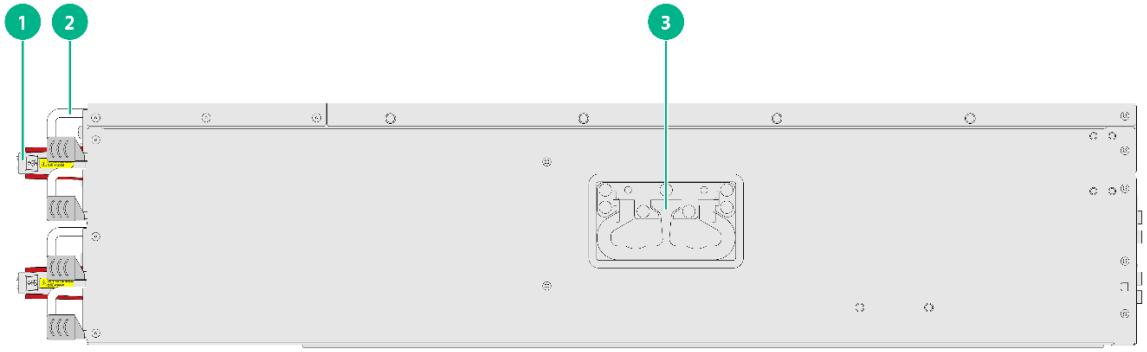
Figure2-2 S9825-64D rear panel



(1) Grounding point	(2) Fan module
(3) Power output status LED (OUT)	(4) Power input status LED (IN)
(5) Power input receptacle	(6) Power supply latch
(7) Power supply fault LED (!)	(8) Fan module alarm LED (RUN/ALM)

The S9825-64D switch came with power supply slot PSU1 empty and power supply slots PSU2, PSU3, and PSU4 each installed with a filler panel. You can install two or multiple power supplies for the switch as needed. In Figure2-2, four PSR1600C-12A-B AC power supplies are installed in the power supply slots.

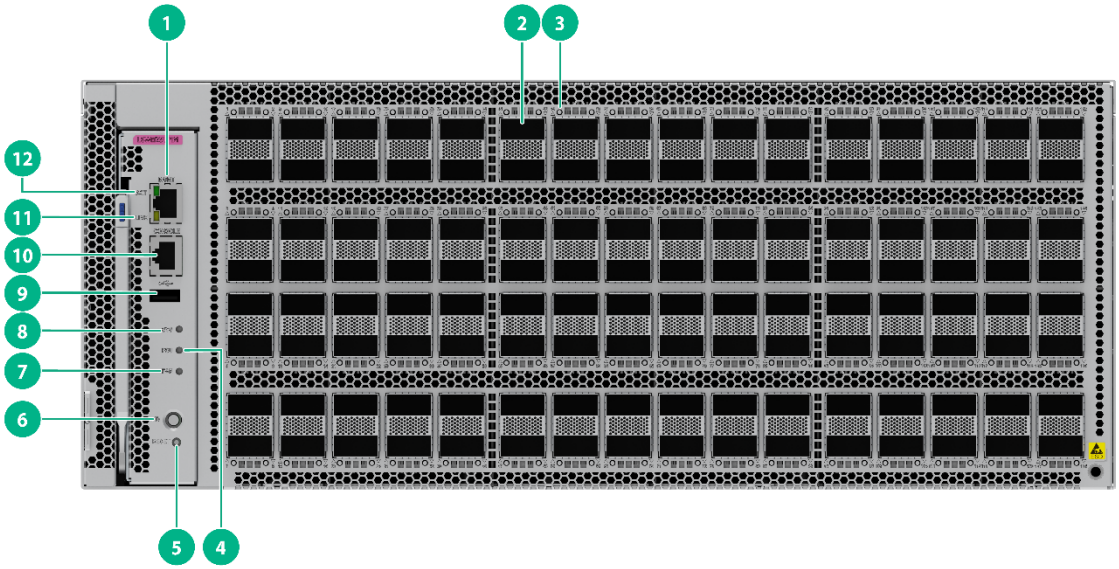
Figure2-3 S9825-64D left panel



(1) Fan module handle	(2) Power supply handle
(3) Chassis handle	

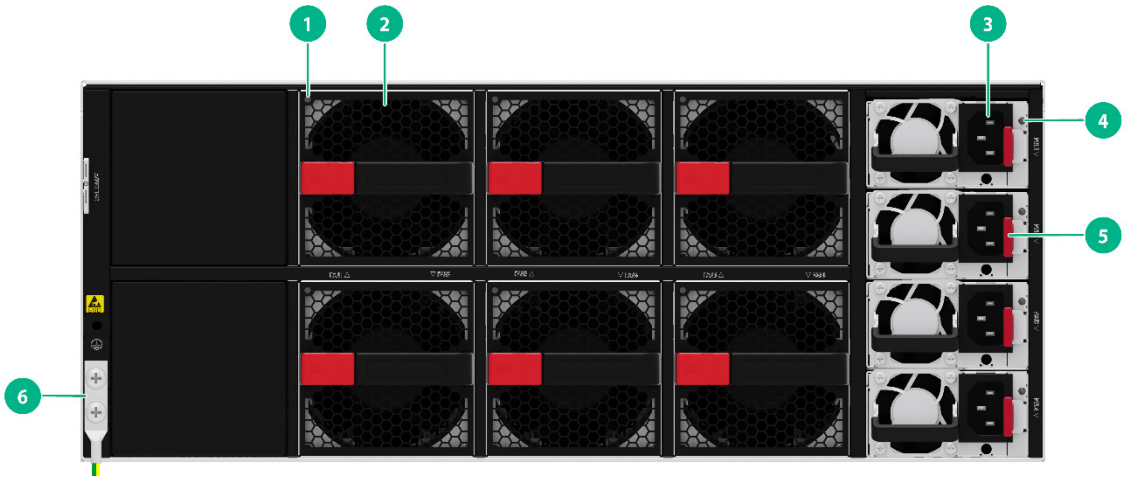
S9825-128B

Figure2-4 S9825-128B front panel



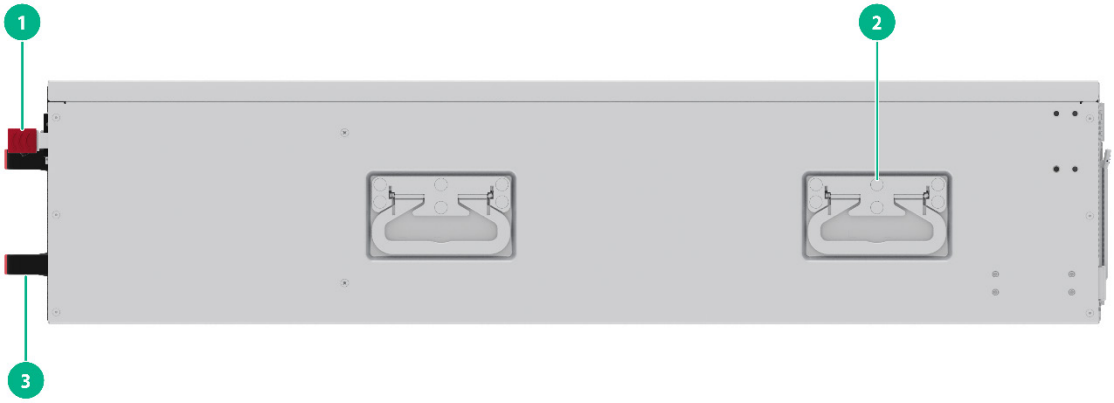
(1) Management Ethernet port	(2) QSFP56 port
(3) QSFP56 port LED	(4) Power supply status LED (PSU)
(5) Reset button (RESET)	(6) Position LED (ID)
(7) Fan module status LED (FAN)	(8) System status LED (SYS)
(9) USB port	(10) Console port
(11) Management Ethernet port LED (LINK)	(12) Management Ethernet port LED (ACT)

Figure2-5 S9825-128B rear panel



(1) Fan module alarm LED	(2) Fan module
(3) Power input receptacle	(4) Power status LED
(5) Power supply latch	(6) Grounding point

Figure2-6 S9825-128B left panel



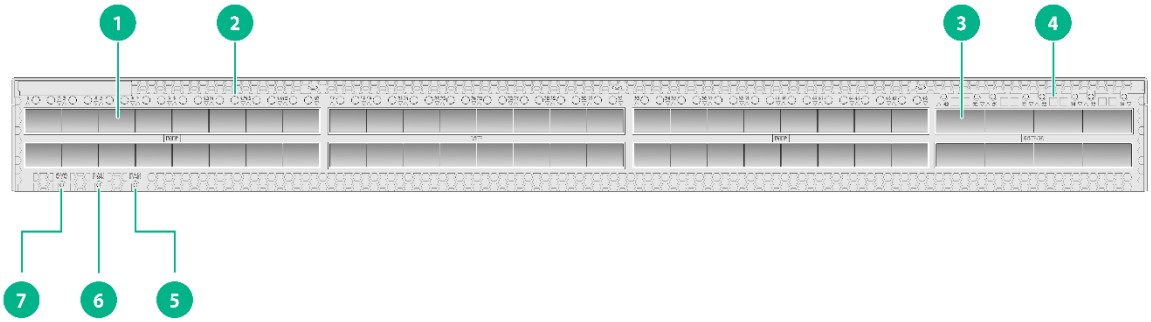
(1) Power supply latch	(2) Chassis handle
(3) Fan module handle	

The S9825-128B switch has four power supply slots on the rear panel. You can install two or multiple power supplies for the switch as needed. In Figure2-5, four PSR1300-12A-C-B AC power supplies are installed in the power supply slots.

The S9825-128B switch has six fan module slots on the rear panel. In Figure2-5, six LSWM1FANSD-SN fan modules are installed in the fan module slots.

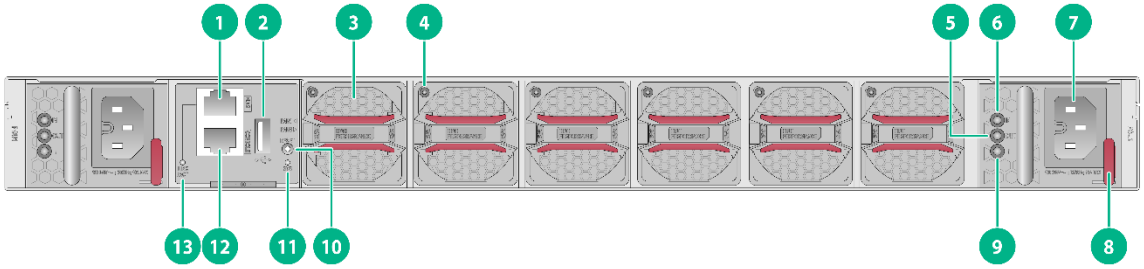
S9855-48CD8D

Figure2-7 S9855-48CD8D front panel



(1) DSFP port	(2) DSFP port LED
(3) QSFP-DD port	(4) QSFP-DD port LED
(5) Fan module status LED (FAN)	(6) Power supply status LED (PSU)
(7) System status LED (SYS)	

Figure2-8 S9855-48CD8D rear panel

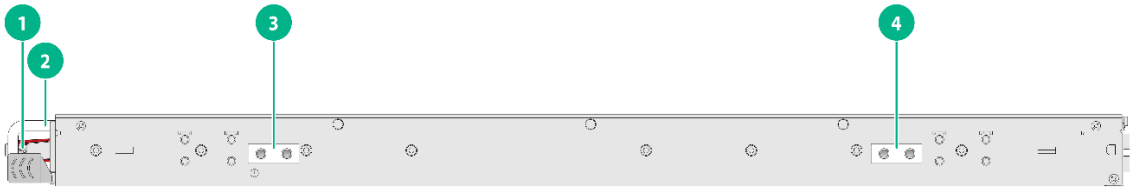


(1) Management Ethernet port	(2) USB port
(3) Fan module	(4) Fan module alarm LED
(5) Power output status LED (OUT)	(6) Power input status LED (IN)
(7) Power input receptacle	(8) Power supply latch
(9) Power supply fault LED (!)	(10) Reset button (RESET)
(11) System status LED (SYS)	(12) Console port
(13) Management Ethernet port LED (LINK/ACT)	

The S9855-48CD8D switch came with power supply slot PSU1 empty and power supply slot PSU2 installed with a filler panel. You can install one or two power supplies for the switch as needed. In Figure2-8, two PSR1600C-12A-B AC power supplies are installed in the power supply slots.

The S9855-48CD8D switch has six fan module slots on the rear panel. In Figure2-8, six FAN-40B-1-C fan modules are installed in the fan module slots.

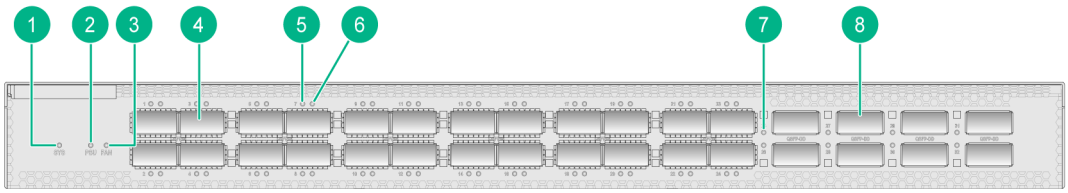
Figure2-9 S9855-48CD8D left panel



(1) Fan module handle	(2) Power supply handle
(3) Primary grounding point	(4) Auxiliary grounding point

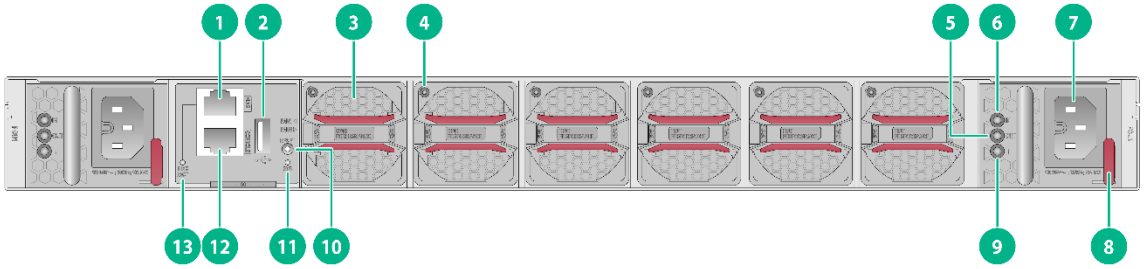
S9855-24B8D

Figure2-10 S9855-24B8D front panel



(1) System status LED (SYS)	(2) Power supply status LED (PSU)
(3) Fan module status LED (FAN)	(4) QSFP56 port
(5) QSFP56 port LED 1	(6) QSFP56 port LED 2
(7) QSFP-DD port LED	(8) QSFP-DD port

Figure2-11 S9855-24B8D rear panel

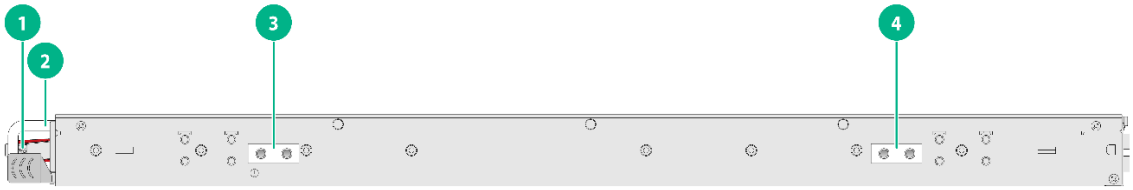


(1) Management Ethernet port	(2) USB port
(3) Fan module	(4) Fan module alarm LED
(5) Power output status LED (OUT)	(6) Power input status LED (IN)
(7) Power input receptacle	(8) Power supply latch
(9) Power supply fault LED (!)	(10) Reset button (RESET)
(11) System status LED (SYS)	(12) Console port
(13) Management Ethernet port LED (LINK/ACT)	

The S9855-24B8D switch came with power supply slot PSU1 empty and power supply slot PSU2 installed with a filler panel. You can install one or two power supplies for the switch as needed. In Figure2-11, two PSR1600C-12A-B AC power supplies are installed in the power supply slots.

The S9855-24B8D switch has six fan module slots on the rear panel. In Figure2-11, six FAN-40B-1-C fan modules are installed in the fan module slots.

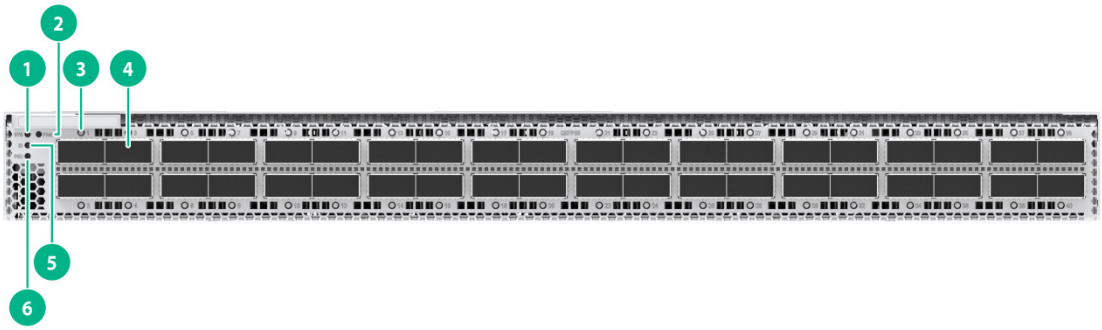
Figure2-12 S9855-24B8D left panel



(1) Fan module handle	(2) Power supply handle
(3) Primary grounding point	(4) Auxiliary grounding point

S9855-40B

Figure2-13 S9855-40B front panel



(1) System status LED (SYS)	(2) Fan module status LED (FAN)
(3) QSFP56 port LED	(4) QSFP56 port
(5) Device ID LED	(6) Power supply status LED (PSU)

Figure2-14 S9855-40B rear panel

(1) Management Ethernet port LED (ACT)	(2) Management Ethernet port
(3) Management Ethernet port LED (LINK)	(4) Fan module
(5) Fan module alarm LED	(6) Power supply fans
(7) Power input receptacle	(8) Power supply fault LED (!)
(9) Power supply latch	(10) Power supply handle
(11) Console port	(12) Device label pull tab (ASSET TAG)
(13) USB port	

The S9855-40B switch came with power supply slot PSU1 empty and power supply slot PSU2 installed with a filler panel. You can install one or two power supplies for the switch as needed. In Figure2-14, two PSR1300-12A-C-B AC power supplies are installed in the power supply slots.

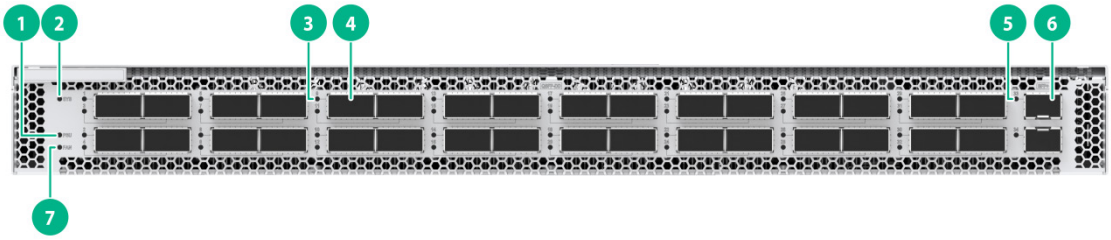
The S9855-40B switch has six fan module slots on the rear panel. In Figure2-14, six FAN-40B-1-H fan modules are installed in the fan module slots.

Figure2-15 S9855-40B left panel

(1) Fan module handle	(2) Primary grounding point
(3) Auxiliary grounding point	(4) Power supply handle

S9855-32D

Figure2-16 S9855-32D front panel



(1) Power supply status LED (PSU)	(2) System status LED (SYS)
(3) QSFP-DD port LED	(4) QSFP-DD port
(5) SFP+ port LED	(6) SFP+ port
(7) Fan module status LED (FAN)	

Figure2-17 S9855-32D rear panel

(1) Management Ethernet port	(2) USB port
(3) Fan module	(4) Fan module alarm LED
(5) Power output status LED (OUT)	(6) Power input status LED (IN)
(7) Power input receptacle	(8) Power supply latch
(9) Power supply fault LED (!)	(10) Reset button (RESET)
(11) System status LED (SYS)	(12) Console port
(13) Management Ethernet port LED (LINK/ACT)	

The S9855-32D switch came with power supply slot PSU1 empty and power supply slot PSU2 installed with a filler panel. You can install one or two power supplies for the switch as needed. In Figure2-17, two PSR1600C-12A-B AC power supplies are installed in the power supply slots.

The S9855-32D switch has six fan module slots on the rear panel. In Figure2-17, six FAN-40B-1-C fan modules are installed in the fan module slots.

Figure2-18 S9855-32D left panel

(1) Fan module handle	(2) Primary grounding point
(3) Auxiliary grounding point	(4) Power supply handle

3 Removable components

Removable components available for the switch

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

Table3-1 Removable components available for the switch

Removable components	S9825-64D	S9825-128B	S9855-48CD8D	S9855-24B8D	S9855-40B	S9855-32D
Power supplies						
PSR1600C-12A-B	Supported	Not supported	Supported	Supported	Not supported	Supported
PSR1300-12A-C-B	Not supported	Supported	Not supported	Not supported	Supported	Not supported
PSR1300-12A-C-A	Not supported	Supported	Not supported	Not supported	Supported	Not supported
PSR2400B-12D-B	Supported	Not supported	Supported	Supported	Not supported	Supported
Fan modules						
FAN-80B-1-B	Supported	Not supported	Not supported	Not supported	Not supported	Not supported
FAN-40B-1-C	Not supported	Not supported	Supported	Supported	Not supported	Supported
FAN-40F-1-D	Not supported	Not supported	Not supported	Supported	Not supported	Supported
FAN-40B-1-H	Not supported	Not supported	Not supported	Not supported	Supported	Not supported
LSWM1FANSD-SN	Not supported	Supported	Not supported	Not supported	Not supported	Not supported

The S9855-48CD8D, S9855-24B8D, S9855-40B, or S9855-32D switch can operate correctly with only one power supply. You can install two power supplies for 1+1 redundancy.

The S9825-64D and S9825-128B switches can operate correctly with two power supplies. You can install three power supplies for 2+1 redundancy or four power supplies for 2+2 redundancy.

The switch can operate correctly with five fan modules. You can install six fan modules for 5+1 redundancy.

Power supplies

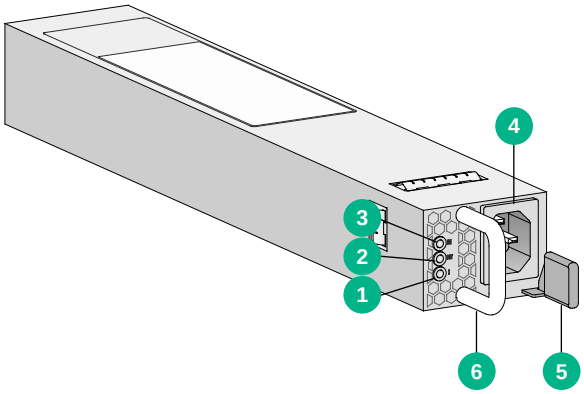
WARNING!

When the switch has power supplies in redundancy, you can replace a power supply without powering off the switch. To avoid device damage or bodily injury, make sure the power supply is powered off before you replace it.

PSR1600C-12A-B AC power supply

View

Figure3-1 PSR1600C-12A-B power supply



(1) Power supply fault LED (!)	(2) Power output status LED (OUT)
(3) Power input status LED (IN)	(4) Power input receptacle
(5) Latch	(6) Handle

For the LED description, see "Power supply LEDs."

Features

The PSR1600C-12A-B is a power supply with AC or HVDC input (240 VDC) and DC output. It provides a maximum output of 1600 W. Table3-2 describes the features provided by the PSR1600C-12A-B power supply.

Table3-2 PSR1600C-12A-B power supply features

Feature	Description
Protection function	The power supply provides protection against input overcurrent, input undervoltage, output overcurrent, output overvoltage, output shortcircuit, and overtemperature conditions.
Support for redundancy	Multiple power supplies can be connected in parallel to achieve N+1 or N+N redundancy and load balancing.
Support for hot swapping	You can remove one of the power supplies in redundancy when the switch is operating.

Technical specifications

Table3-3 Technical specifications

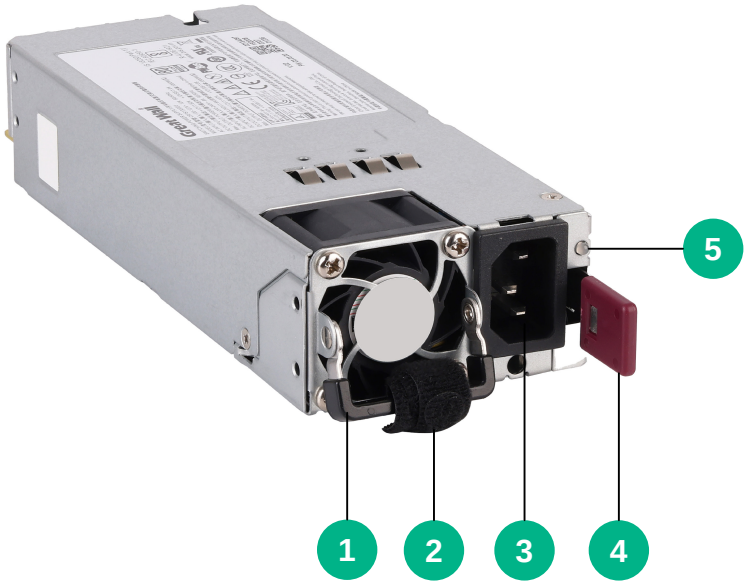
Item	Specification
Net weight	0.95 kg (2.09 lb)
Rated AC input voltage range	100 to 240 VAC @ 50 to 60 Hz
Rated HVDC input voltage range	180 to 320 VDC
Output voltage	12 V
Max output current	133 A
Max output power	1600 W

Item	Specification
Dimensions (H × W × D, including the handle)	40.0 × 54.5 × 363.8 mm (1.57 × 2.15 × 14.32 in)
Operating temperature	–10°C to +55°C (14°F to 131°F)
Operating relative humidity	5% to 95%
Airflow direction	Draws air from the port side to the power supply side
Melting current of power supply fuse	10 A/250 V

PSR1300-12A-C-A AC power supply

View

Figure3-2 PSR1300-12A-C-A power supply



(1) Handle	(2) Velcro strap
(3) Power input receptacle	(4) Latch
(5) LED	

For the LED description, see "Power supply LEDs."

Features

The PSR1300-12A-C-A is a power supply with AC or HVDC input (240 VDC) and DC output. It provides a maximum output of 1300 W. Table3-4 describes the features provided by the PSR1300-12A-C-A power supply.

Table3-4 PSR1300-12A-C-A power supply features

Feature	Description
Protection function	The power supply provides protection against input overcurrent, input undervoltage, output overcurrent, output overvoltage, output shortcircuit, and overtemperature conditions.
Support for redundancy	Multiple power supplies can be connected in parallel to achieve N+1 or N+N

Feature	Description
	redundancy and load balancing.
Support for hot swapping	You can remove one of the power supplies in redundancy when the switch is operating.

Technical specifications

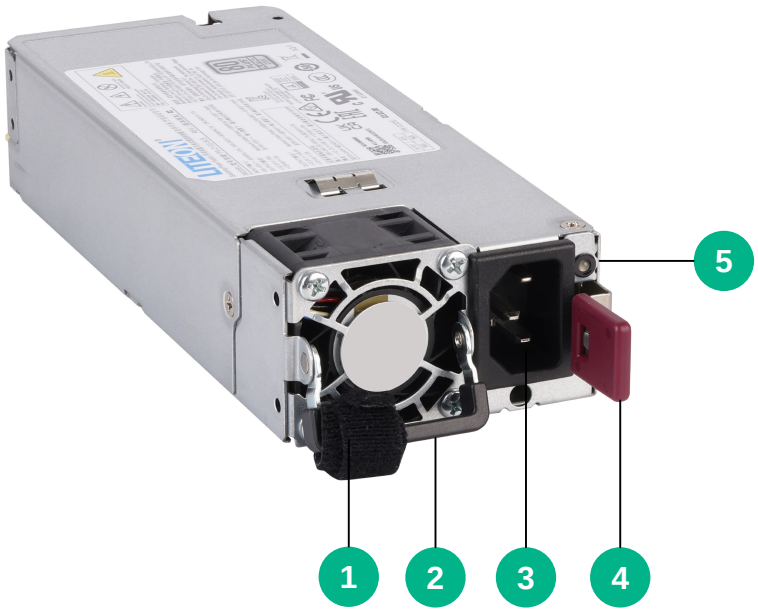
Table3-5 Technical specifications

Item	Specification
Net weight	0.90 kg (1.98 lb)
Rated AC input voltage range	100 to 240 VAC @ 50 to 60 Hz
Rated HVDC input voltage range	180 to 320 VDC
Output voltage	12 V
Max output current	107 A
Max output power	1300 W
Dimensions (H × W × D, including the handle)	40.0 × 73.5 × 185 mm (1.57 × 2.89 × 7.28 in)
Operating temperature	–10°C to +55°C (14°F to 131°F)
Operating relative humidity	5% to 95%
Airflow direction	Draws air from the port side to the power supply side
Melting current of power supply fuse	10 A/250 V

PSR1300-12A-C-B AC power supply

View

Figure3-3 PSR1300-12A-C-B power supply



(1) Velcro strap	(2) Handle
(3) Power input receptacle	(4) Latch
(5) LED	

For the LED description, see "Power supply LEDs."

Features

The PSR1300-12A-C-B is a power supply with AC or HVDC input (240 VDC) and DC output. It provides a maximum output of 1300 W. Table3-6 describes the features provided by the PSR1300-12A-C-B power supply.

Table3-6 PSR1300-12A-C-B power supply features

Feature	Description
Protection function	The power supply provides protection against input overcurrent, input undervoltage, output overcurrent, output overvoltage, output shortcircuit, and overtemperature conditions.
Support for redundancy	Multiple power supplies can be connected in parallel to achieve N+1 or N+N redundancy and load balancing.
Support for hot swapping	You can remove one of the power supplies in redundancy when the switch is operating.

Technical specifications

Table3-7 Technical specifications

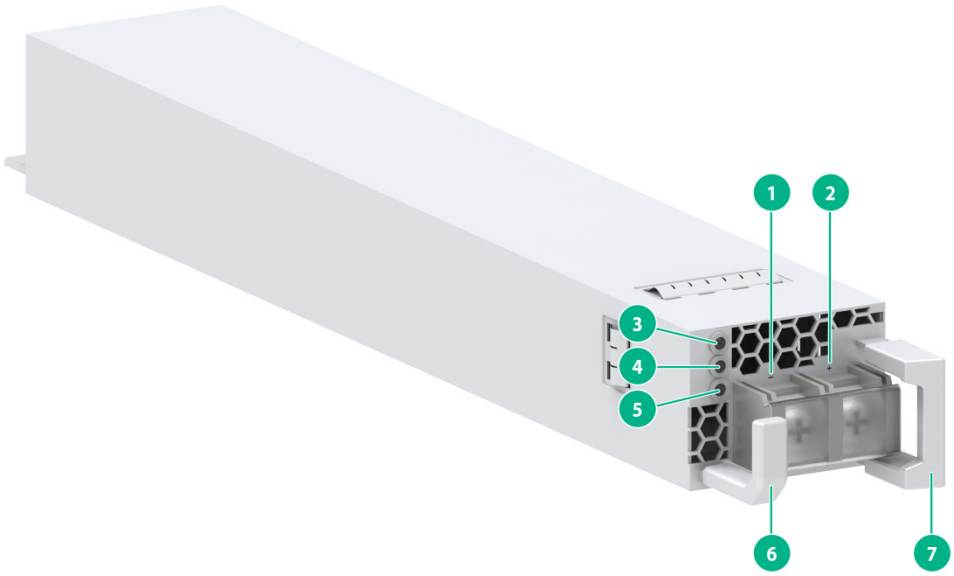
Item	Specification
Net weight	0.90 kg (1.98 lb)

Item	Specification
Rated AC input voltage range	100 to 240 VAC @ 50 to 60 Hz
Rated HVDC input voltage range	180 to 320 VDC
Output voltage	12 V
Max output current	107 A
Max output power	1300 W
Dimensions (H × W × D, including the handle)	40.0 × 73.5 × 185 mm (1.57 × 2.89 × 7.28 in)
Operating temperature	–10°C to +55°C (14°F to 131°F)
Operating relative humidity	5% to 95%
Airflow direction	Draws air from the port side to the power supply side
Melting current of power supply fuse	10 A/250 V

PSR2400B-12D-B DC power supply

View

Figure3-4 PSR2400B-12D-B power supply



(1) Power input negative connection	(2) Power input positive connection
(3) Power input status LED (IN)	(4) Power output status LED (OUT)
(5) Power supply fault LED (!)	(6) Handle
(7) Latch	

For the LED description, see "Power supply LEDs."

Features

The PSR2400B-12D-B is a DC input and DC output power supply. It provides a maximum output of 2400 W. Table3-8 describes the features provided by the PSR2400B-12D-B power supply.

Table3-8 PSR2400B-12D-B power supply features

Feature	Description
Protection function	The power supply provides protection against input overcurrent, input undervoltage, output overcurrent, output overvoltage, output shortcircuit, and overtemperature conditions.
Support for redundancy	Multiple power supplies can be connected in parallel to achieve N+1 or N+N redundancy and load balancing.
Support for hot swapping	You can remove one of the power supplies in redundancy when the switch is operating.

Technical specifications

Table3-9 Technical specifications

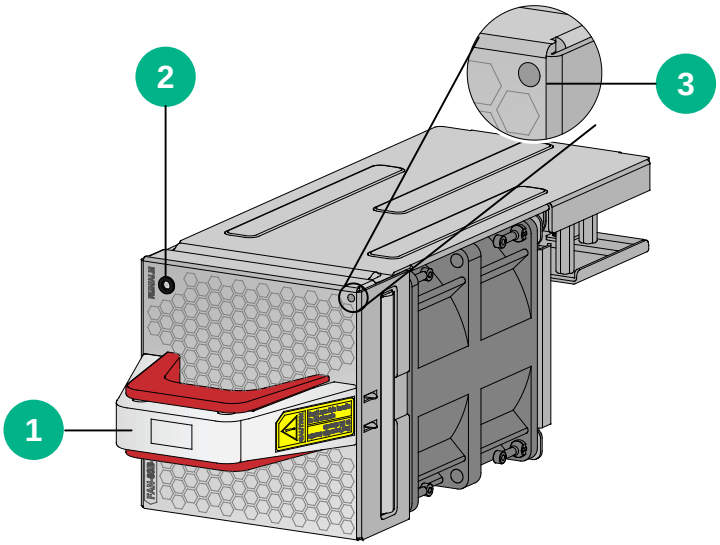
Item	Specification
Net weight	1.05 kg (2.31 lb)
Rated input voltage range	–48 to –60 VDC
Output voltage	12 V
Max output current	200 A
Max output power	2400 W
Dimensions (H × W × D, including the handle)	40.0 × 54.4 × 321.5 mm (1.57 × 2.14 × 12.66 in)
Operating temperature	–10°C to +50°C (14°F to 122°F)
Operating relative humidity	5% to 95%
Airflow direction	Draws air from the port side to the power supply side
Melting current of power supply fuse	80 A/80 V

Fan modules

FAN-80B-1-B

View

Figure3-5 FAN-80B-1-B fan module



(1) Handle	(2) Alarm LED
(3) Alignment hole	

Features

The FAN-80B-1-B fan module provides port-side intake and fan module faceplate-side exhaust airflow. The fan module is small, hot swappable, and can automatically adjust the fan speed according to the device temperature.

Technical specifications

Table3-10 Technical specifications

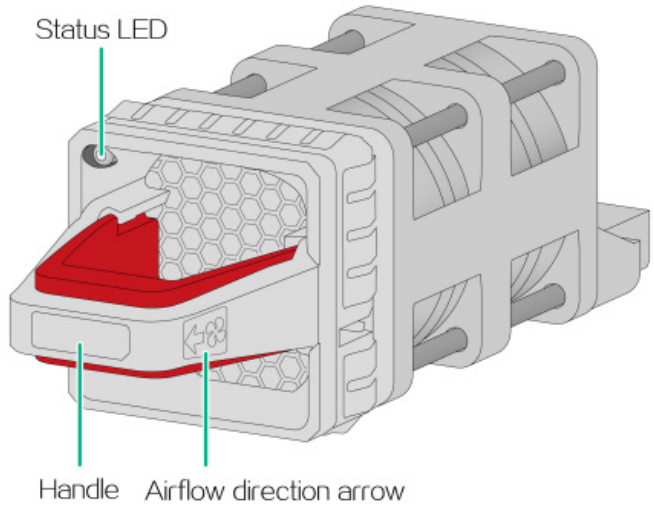
Item	Specification
Dimensions (H × W × D, including the handle)	84 × 81 × 240 mm (3.31 × 3.19 × 9.45 in)
Net weight	0.90 kg (1.98 lb)
Airflow direction	Air exhausted from the faceplate
Max fan speed	12800 R.P.M
Max air flow rate	130 CFM (3.68 m^3/min)
Input voltage	12 V
Max power consumption	102 W
Operating temperature	0°C to 45°C (32°F to 113°F)
Operating relative humidity	5% RH to 95% RH, noncondensing

Item	Specification
Storage temperature	–40°C to +70°C (–40°F to +158°F)
Storage relative humidity	5% RH to 95% RH, noncondensing
Hot swapping	Supported

FAN-40B-1-C

View

Figure3-6 FAN-40B-1-C fan module



For the LED description, see "Fan module alarm LED."

Features

The FAN-40B-1-C fan module provides port-side intake and fan module faceplate-side exhaust airflow. The fan module is small, hot swappable, and can automatically adjust the fan speed according to the device temperature.

Technical specifications

Table3-11 Technical specifications

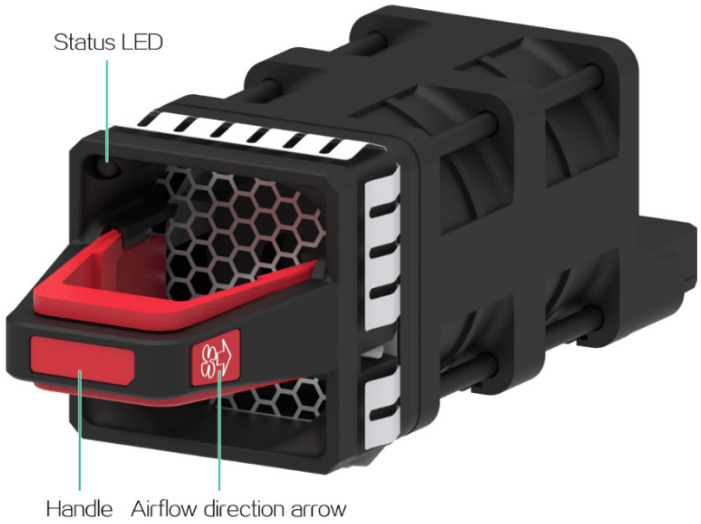
Item	Specification
Dimensions (H × W × D, including the handle)	40 × 40 × 136 mm (1.57 × 1.57 × 5.35 in)
Weight	0.15 kg (0.33 lb)
Airflow direction	Air exhausted from the faceplate
Max fan speed	29000 R.P.M
Max air flow rate	38 CFM (1.08 m^3/min)
Input voltage	12 V
Max power consumption	60 W
Operating temperature	0°C to 45°C (32°F to 113°F)
Operating relative humidity	5% RH to 95% RH, noncondensing

Item	Specification
Storage temperature	–40°C to +70°C (–40°F to +158°F)
Storage relative humidity	5% RH to 95% RH, noncondensing
Hot swapping	Supported

FAN-40F-1-D

View

Figure3-7 FAN-40F-1-D fan module



For the LED description, see "Fan module alarm LED."

Features

The FAN-40F-1-D fan module provides fan module faceplate-side intake and port-side exhaust airflow. The fan module is small, hot swappable, and can automatically adjust the fan speed according to the device temperature.

Technical specifications

Table3-12 Technical specifications

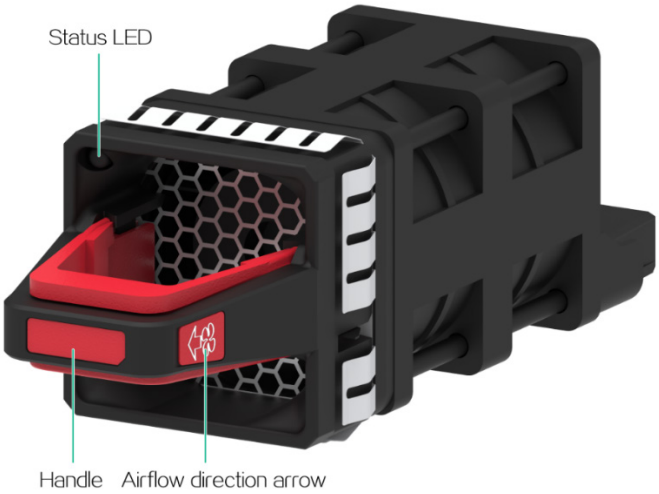
Item	Specification
Dimensions (H × W × D, including the handle)	40 × 40 × 136 mm (1.57 × 1.57 × 5.35 in)
Weight	0.15 kg (0.33 lb)
Airflow direction	Air exhausted from the port side
Max fan speed	29000 R.P.M
Max air flow rate	38 CFM (1.08 m^3/min)
Input voltage	12 V
Max power consumption	60 W
Operating temperature	0°C to 45°C (32°F to 113°F)

Item	Specification
Operating relative humidity	5% RH to 95% RH, noncondensing
Storage temperature	–40°C to +70°C (–40°F to +158°F)
Storage relative humidity	5% RH to 95% RH, noncondensing
Hot swapping	Supported

FAN-40B-1-H

View

Figure3-8 FAN-40B-1-H fan module



For the LED description, see "Fan module alarm LED."

Functions

The FAN-40B-1-H fan module provides port-side intake and fan module faceplate-side exhaust airflow. The fan module is small, hot swappable, and can automatically adjust the fan speed according to the device temperature.

Technical specifications

Table3-13 Technical specifications

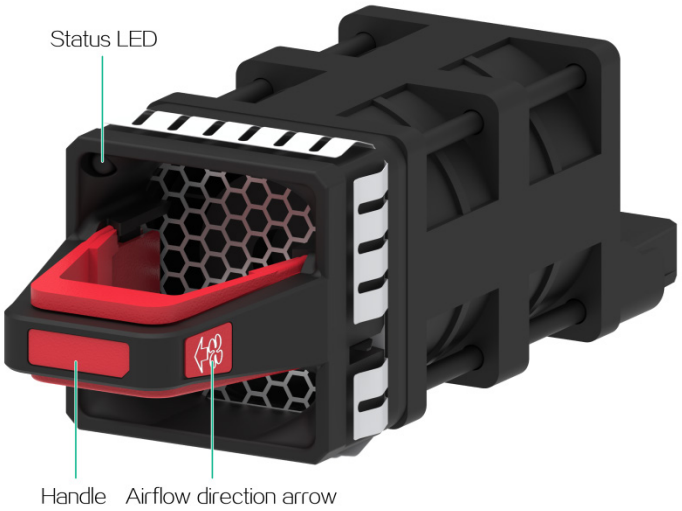
Item	Specification
Dimensions (H × W × D, including the handle)	40 × 40 × 136 mm (1.57 × 1.57 × 5.35 in)
Weight	0.15 kg (0.33 lb)
Airflow direction	Air exhausted from the faceplate
Max fan speed	28500/29000 R.P.M
Max air flow rate	38 CFM (1.08 m^3/min)
Input voltage	12 V
Max power consumption	60 W
Operating temperature	0°C to 45°C (32°F to 113°F)

Item	Specification
Operating relative humidity	5% RH to 95% RH, noncondensing
Storage temperature	–40°C to +70°C (–40°F to +158°F)
Storage relative humidity	5% RH to 95% RH, noncondensing
Hot swapping	Supported

LSWM1FANSD-SN

View

Figure3-9 LSWM1FANSD-SN fan module



For the LED description, see "Fan module alarm LED."

Functions

The LSWM1FANSD-SN fan module provides port-side intake and fan module faceplate-side exhaust airflow. The fan module is small, hot swappable, and can automatically adjust the fan speed according to the device temperature.

Technical specifications

Table3-14 Technical specifications

Item	Specification
Dimensions (H × W × D, including the handle)	80 × 80 × 136 mm (3.15 × 3.15 × 5.32 in)
Weight	0.65 kg (1.43 lb)
Airflow direction	Air exhausted from the faceplate
Max fan speed	Inlet: 14800 R.P.M Outlet: 10750 R.P.M
Max air flow rate	159.04 CFM (4.50 m^3/min)
Input voltage	12 V

Item	Specification
Max power consumption	63.6 W
Operating temperature	0°C to 45°C (32°F to 113°F)
Operating relative humidity	5% RH to 95% RH, noncondensing
Storage temperature	–40°C to +70°C (–40°F to +158°F)
Storage relative humidity	5% RH to 95% RH, noncondensing
Hot swapping	Supported

4 Ports and LEDs

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 of H3C transceiver modules and cables, see *H3C Transceiver Modules User Guide*.

Ports

Console port

The switch has a serial console port.

Table4-1 Console port specifications

Item	Serial console port
Connector type	RJ-45
Compliant standard	EIA/TIA-232
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 terminal (a PC for example) running a terminal emulation program.

Management Ethernet port

The switch has a copper management Ethernet port. You can connect the port 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	RJ-45
Port quantity	1 × management 10/100/1000BASE-T port
Port transmission rate, duplex mode, and auto MDI/MDI-X	• 10/100 Mbps, half/full duplex, auto MDI/MDI-X • 1000 Mbps, full duplex, auto MDI/MDI-X
Transmission medium and max transmission distance	100 m (328.08 ft) over category 5 UTP cable
Functions and services	Software upgrade and network management.

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 identify 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 of all vendors on the switch. If a USB device fails to operate on the switch, replace it with one from another vendor.

SFP+ port

Table4-3 SFP+ port description

Item	Description
Port type	10GE SFP+ Ethernet fiber port
Available switch models	The S9855-32D switch provides two SFP+ ports on the front panel
Connector type	LC
Services	Transmits and receives data at 1 or 10 Gbps
Compliant standard	IEEE802.3ae
Fiber port attribute	Determined by the transceiver modules or cables installed
Duplex mode	Full duplex
Available transceiver modules and cables	• 10G SFP+ transceiver modules • 10G SFP+ copper cables • 10G SFP+ AOC cables • 1G SFP transceiver modules

NOTE:

For information about the transceiver modules and cables available for the SFP+ ports, see *H3C S9825[S9855] Switch Series Cards and Transceiver Modules Compatibility Matrixes*.

DSFP port

Purchase DSFP transceiver modules yourself as needed.

Table4-4 DSFP port description

Item	Description
Port type	100GE DSFP+ Ethernet fiber port
Available switch models	The S9855-48CD8D switch provides 48 DSFP ports on the front panel
Connector type	LC
Services	Transmits and receives data at 100 Gbps
Compliant standard	IEEE802.3cd
Fiber port attribute	Determined by the transceiver modules or cables installed
Duplex mode	Full duplex
Available transceiver	• 100G DSFP transceiver modules

Item	Description
modules and cables	• 100G DSFP copper cables • 100G DSFP AOC cables • 25G SFP28 transceiver modules • 25G SFP28 copper cables • 25G SFP28 AOC cables • 10G SFP+ transceiver modules • 10G SFP+ copper cables

NOTE:

For information about the transceiver modules and cables available for the DSFP ports, see *H3C S9825[S9855] Switch Series Cards and Transceiver Modules Compatibility Matrixes*.

QSFP-DD port

Table4-5 QSFP-DD port description

Item	Description
Port type	400GE QSFP-DD Ethernet fiber port
Available switch models	• The S9825-64D switch provides 64 QSFP-DD ports on the front panel. • The S9855-48CD8D and S9825-24B8D switches each provide 8 QSFP-DD ports on the front panel. • The S9855-32D switch provides 32 QSFP-DD ports on the front panel.
Connector type	LC/MPO
Services	Transmits and receives data at 400 Gbps
Compliant standard	IEEE802.3bs
Fiber port attribute	Determined by the transceiver modules or cables installed
Duplex mode	Full duplex
Available transceiver modules and cables	S9825-64D: • 400G QSFP-DD transceiver modules • 400G QSFP-DD copper cables • 400G QSFP-DD AOC cables • 400G QSFP-DD to 2 × 200G QSFP56 AOC cables • 200G QSFP56 transceiver modules • 200G QSFP56 copper cables • 200G QSFP56 AOC cables • 100G QSFP28 transceiver modules • 100G QSFP28 copper cables • 100G QSFP28 AOC cables S9855-48CD8D: • 400G QSFP-DD transceiver modules • 400G QSFP-DD copper cables • 400G QSFP-DD AOC cables • 400G QSFP-DD to 2 × 200G QSFP56 AOC cables • 200G QSFP56 transceiver modules • 200G QSFP56 copper cables • 200G QSFP56 AOC cables

Item	Description
	• 100G QSFP28 transceiver modules • 100G QSFP28 copper cables • 100G QSFP25 AOC cables S9855-24B8D: • 400G QSFP-DD transceiver modules • 400G QSFP-DD copper cables • 400G QSFP-DD AOC cables • 400G QSFP-DD to 2 × 200G QSFP56 AOC cables • 200G QSFP56 transceiver modules • 200G QSFP56 copper cables • 200G QSFP56 AOC cables • 100G QSFP28 transceiver modules • 100G QSFP28 copper cables • 100G QSFP28 AOC cables • 100G QSFP28 to 4 × 25G SFP28 copper cables • 40G QSFP+ transceiver modules • 40G QSFP+ copper cables • 40G QSFP+ AOC cables S9855-32D: • 400G QSFP-DD transceiver modules • 400G QSFP-DD copper cables • 400G QSFP-DD AOC cables • 400G QSFP-DD to 2 × 200G QSFP56 AOC cables • 200G QSFP56 transceiver modules • 200G QSFP56 copper cables • 200G QSFP56 AOC cables • 100G QSFP28 transceiver modules • 100G QSFP28 copper cables • 100G QSFP28 AOC cables • 100G QSFP28 to 4 × 25G SFP28 copper cables • 40G QSFP+ transceiver modules • 40G QSFP+ copper cables • 40G QSFP+ AOC cables

NOTE:

For information about the transceiver modules and cables available for the QSFP-DD ports, see *H3C S9825[S9855] Switch Series Cards and Transceiver Modules Compatibility Matrixes*.

QSFP56 port

Table4-6 QSFP56 port description

Item	Description
Port type	200GE QSFP56 Ethernet fiber port
Available switch models	• The S9825-128B switch provides 128 QSFP56 ports on the front panel. • The S9855-24B8D switch provides 24 QSFP56 ports on the front panel. • The S9855-40B switch provides 40 QSFP56 ports on the front panel.
Connector type	LC/MPO

Item	Description
Services	Transmits and receives data at 200 Gbps
Compliant standard	IEEE802.3bs
Fiber port attribute	Determined by the transceiver modules or cables installed
Duplex mode	Full duplex
Available transceiver modules and cables	S9825-128B: • 200G QSFP56 transceiver modules • 200G QSFP56 copper cables • 200G QSFP56 AOC cables • 200G QSFP56 to 2 × 100G QSFP56 copper cables • 200G QSFP56 to 2 × 100G QSFP56 AOC cables S9855-24B8D: • 200G QSFP56 transceiver modules • 200G QSFP56 copper cables • 200G QSFP56 AOC cables • 200G QSFP56 to 2 × 100G QSFP56 copper cables • 200G QSFP56 to 2 × 100G QSFP56 AOC cables • 100G QSFP28 transceiver modules • 100G QSFP28 copper cables • 100G QSFP28 AOC cables • 100G QSFP28 to 4 × 25G SFP28 cables • 40G QSFP+ transceiver modules • 40G QSFP+ copper cables • 40G QSFP+ AOC cables • 40G QSFP to 4 × 10G copper cables S9855-40B: • 200G QSFP56 transceiver modules • 200G QSFP56 copper cables • 200G QSFP56 AOC cables • 200G QSFP56 to 2 × 100G QSFP56 copper cables • 200G QSFP56 to 2 × 100G QSFP56 AOC cables • 100G QSFP28 transceiver modules • 100G QSFP28 copper cables • 100G QSFP28 AOC cables • 40G QSFP+ transceiver modules • 40G QSFP+ copper cables • 40G QSFP+ AOC cables

NOTE:

For information about the transceiver modules and cables available for the QSFP56 ports, see *H3C S9825[S9855] Switch Series Cards and Transceiver Modules Compatibility Matrixes*.

LEDs

Panel LEDs

System status LED

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

Table4-7 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) or downloading software.
	Steady red	The system has failed to pass POST, a fault has occurred, or an overtemperature condition has occurred.
	Steady yellow	The number of fan modules or power supplies on the switch is abnormal.
	Off	The switch is powered off or has failed to start up.

DSFP port LED

The switch provides a DSFP port LED for each DSFP port to indicate their operating status.

Table4-8 DSFP port LED description

LED status	Description
Steady green	A transceiver module or cable has been correctly installed in the port. The port is operating at its maximum speed of 100 Gbps, and a link is present on the port.
Flashing green	The port is sending or receiving data at its maximum speed of 100 Gbps.
Steady yellow	A transceiver module or cable has been correctly installed in the port. The port is operating at a speed lower than the maximum speed, and a link is present on the port.
Flashing yellow	The port is sending or receiving data at a speed lower than the maximum speed.
Off	No transceiver module or cable has been installed in the port, or no link is present on the port.

QSFP56 port LED (applicable to the QSFP56 ports on the S9855-40B and S9825-128B switches)

The S9855-40B and S9825-128B switches each provide a QSFP56 port LED for each QSFP56 port to indicate their operating status.

Table4-9 QSFP56 port LED description

LED status	Description
Steady green	A transceiver module or cable has been correctly installed in the port. The port is operating at its maximum speed of 200 Gbps, and a link is present on the port.
Flashing green	The port is sending or receiving data at its maximum speed of 200 Gbps.
Steady yellow	A transceiver module or cable has been correctly installed in the port. The port is operating at a speed lower than the maximum speed, and a link is present on the

LED status	Description
	port.
Flashing yellow	The port is sending or receiving data at a speed lower than the maximum speed.
Off	No transceiver module or cable has been installed in the port, or no link is present on the port.

QSFP56 port LED (applicable to the QSFP56 ports on the S9855-24B8D switch)

Each QSFP56 port on the S9855-24B8D switch has two status LEDs to indicate port operating status and activities. Table4-10 provides the LED description for a QSFP56 port that is not split. Table4-11 provides the LED description for a QSFP56 port split into two breakout interfaces.

Table4-10 LED description for a QSFP56 port that is not split

LED status	Description
Steady green	A transceiver module or cable has been correctly installed in the port. The port is operating at its maximum speed of 200 Gbps, and a link is present on the port.
Flashing green	The port is sending or receiving data at its maximum speed of 200 Gbps.
Steady yellow	A transceiver module or cable has been correctly installed in the port. The port is operating at a speed lower than the maximum speed, and a link is present on the port.
Flashing yellow	The port is sending or receiving data at a speed lower than the maximum speed.
Off	No transceiver module or cable has been installed in the port, or no link is present on the port.

Table4-11 LED description for a QSFP56 port split into two breakout interfaces

LED status	Description
Steady green	A transceiver module or cable has been correctly installed in the port. The port is operating at its maximum speed of 100 Gbps, and a link is present on the port.
Flashing green	The port is sending or receiving data at its maximum speed of 100 Gbps.
Off	No transceiver module or cable has been installed in the port, or no link is present on the port.

NOTE:

When the port is split into two breakout interfaces, QSFP56 port LED 1 indicates the operating status of the first breakout interface and QSFP56 port LED 2 indicates the operating status of the second breakout interface. For the LED description, see Table4-11.

QSFP-DD port LED

The switch provides a QSFP-DD port LED for each QSFP-DD port to indicate their operating status.

Table4-12 QSFP-DD port LED description

LED status	Description
Steady green	A transceiver module is installed in the port. The port is operating at its maximum speed of 400 Gbps, and a link is present on the port.
Flashing green	The port is sending or receiving data at its maximum speed of 400 Gbps.
Steady yellow	A transceiver module is installed in the port. The port is operating at a speed

LED status	Description
	lower than the maximum speed, and a link is present on the port.
Flashing yellow	The port is sending or receiving data at a speed lower than the maximum speed.
Off	No transceiver module is installed in the port, or no link is present on the port.

Management Ethernet port LED

The switch provides a LINK/ACT LED for the copper management Ethernet port to indicate its operating status.

Table4-13 Management Ethernet port LED description

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 10/100 Mbps.
	Flashing yellow	The port is receiving or sending data at 10/100 Mbps.

Fan module status LED

The switch provides a fan module status LED for the fan modules to indicate their operating status.

Table4-14 Fan module status LED description

LED mark	Status	Description
FAN	Steady green	All fan trays are operating correctly.
	Steady yellow	A fan module is faulty or not in position.
	Steady red	More than one fan module is faulty or not in position.

Power supply status LED

The switch provides a power supply status LED for the power supplies to indicate their operating status.

Table4-15 Power supply status LED description

LED mark	Status	Description
PSU	Steady green	All power supplies are operating correctly.
	Steady yellow	A power supply is faulty or not in position.
	Steady red	More than one power supply is faulty or not in position.

Fan module alarm LED

Each fan module provides an alarm LED to indicate its operating status.

Table4-16 Description for the alarm LED on a fan module

Status	Description

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

Power supply LEDs

The switch supports the PSR1600C-12A-B, PSR2400B-12D-B, PSR1300-12A-C-B, and PSR1300-12A-C-A power supplies. Each power supply provides status LEDs to indicate its operating status. Table4-17 shows the description for the LEDs on a PSR1600C-12A-B or PSR2400B-12D-B power supply. Table4-18 shows the description for the LED on a PSR1300-12A-C-B or PSR1300-12A-C-A power supply.

Table4-17 Description for the LEDs on a PSR1600C-12A-B or PSR2400B-12D-B power supply

LED	LED mark	Status	Description
Power input status LED	IN	Steady green	The power is being input correctly.
		Off	No power is being input or the rated input voltage range has been exceeded.
Power output status LED	OUT	Steady green	The power is being output correctly.
		Off	No power is being output.
Power supply fault LED	!	Flashing yellow	The power supply is faulty.
		Off	The power supply is operating correctly.

Table4-18 Description for the LED on a PSR1300-12A-C-B or PSR1300-12A-C-A power supply

LED status	Description
Steady green	The power supply is operating correctly.
Flashing green at 1 Hz	The power supply is in standby state.
Flashing green at 2 Hz	The power supply is updating software.
Flashing green at 0.33 Hz	The power supply enters cold redundancy state.
Steady amber	The power supply does not have AC input, but the redundant power supply connected in parallel has normal power input.
Flashing amber	The power supply is operating correctly, but an overtemperature, overpower, overcurrent, or slow fan speed alarm has occurred.
Off	The power supply is not securely installed or has no power input.

5 Cooling system

CAUTION:

The chassis and power supplies use separate air aisles. Make sure the two aisles are not blocked when the switch is operating.

The switch uses a highly efficient front-rear air aisle cooling system to ensure adequate heat dissipation and improve system reliability. Consider the ventilation design at the installation site when you plan the installation location for the switch.

Table5-1 Fan module options for the switch

Switch model	Available fan module	Airflow direction of the chassis
S9825-64D	FAN-80B-1-B	From the port side to the power supply side
S9825-128B	LSWM1FANSD-SN	From the port side to the power supply side
S9855-48CD8D	FAN-40B-1-C	From the port side to the power supply side
S9855-24B8D	FAN-40B-1-C	From the port side to the power supply side
S9855-24B8D	FAN-40F-1-D	From the power supply side to the port side
S9855-32D	FAN-40B-1-C	From the port side to the power supply side
S9855-32D	FAN-40F-1-D	From the power supply side to the port side
S9855-40B	FAN-40B-1-H	From the port side to the power supply side

Figure5-1 Airflow from the port side to the power supply side through the S9825-64D/S9825-128B chassis (S9825-64D as an example)

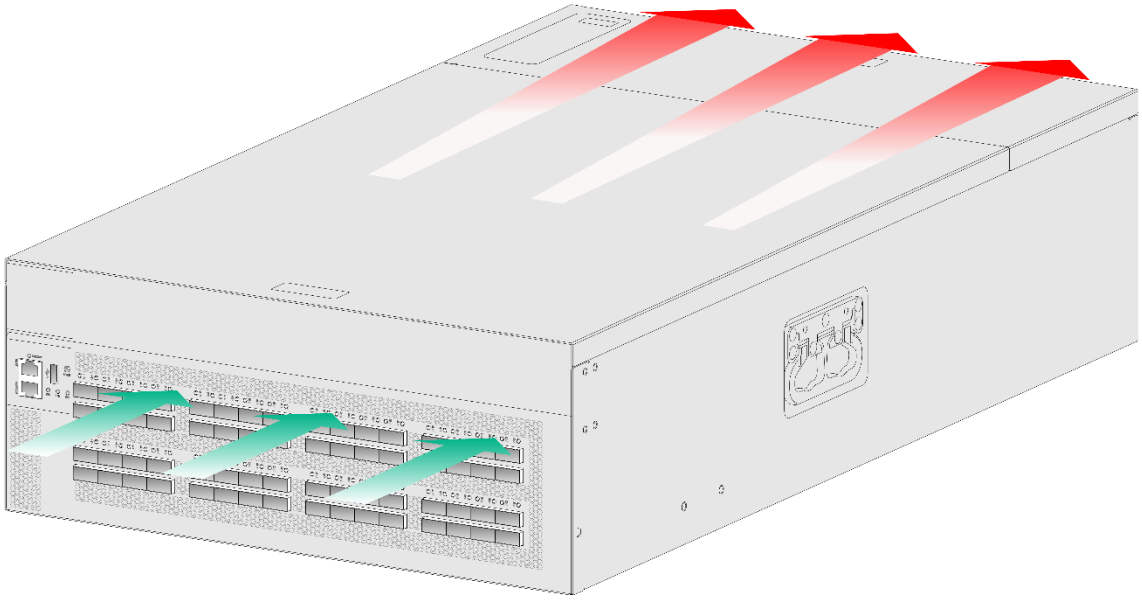


Figure5-2 Airflow from the port side to the power supply side through the S9855-48CD8D chassis

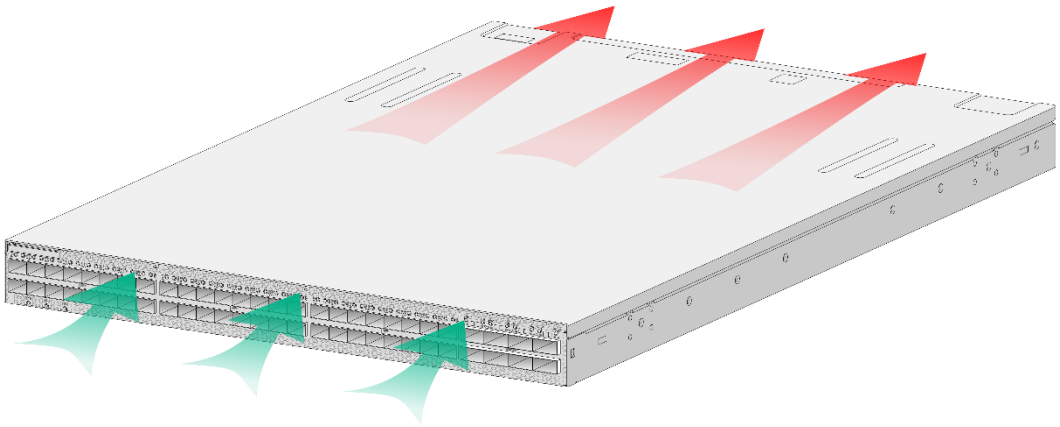


Figure5-3 Airflow from the port side to the power supply side through the S9855-24B8D/S9855-32D chassis (S9855-24B8D chassis as an example)

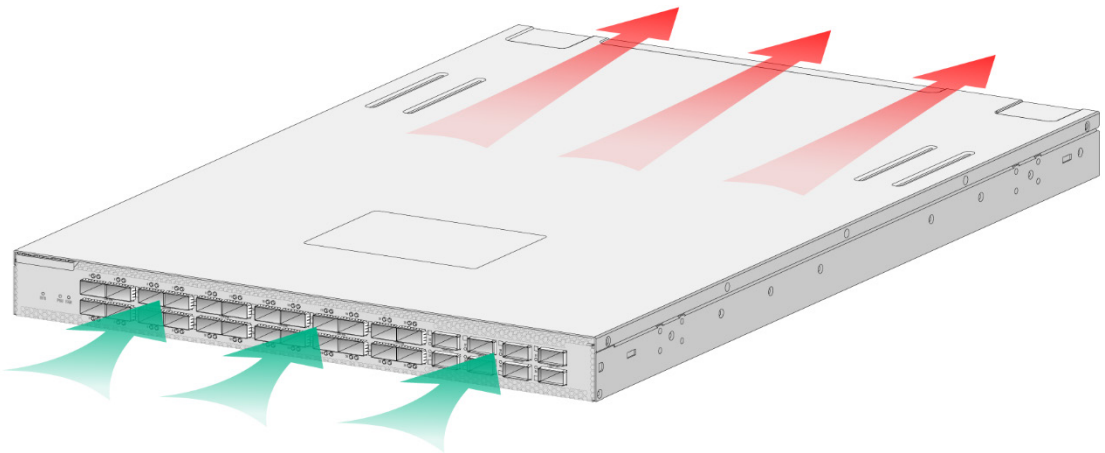


Figure5-4 Airflow from the power supply side to the port side through the S9855-24B8D/S9855-32D chassis (S9855-24B8D chassis as an example)

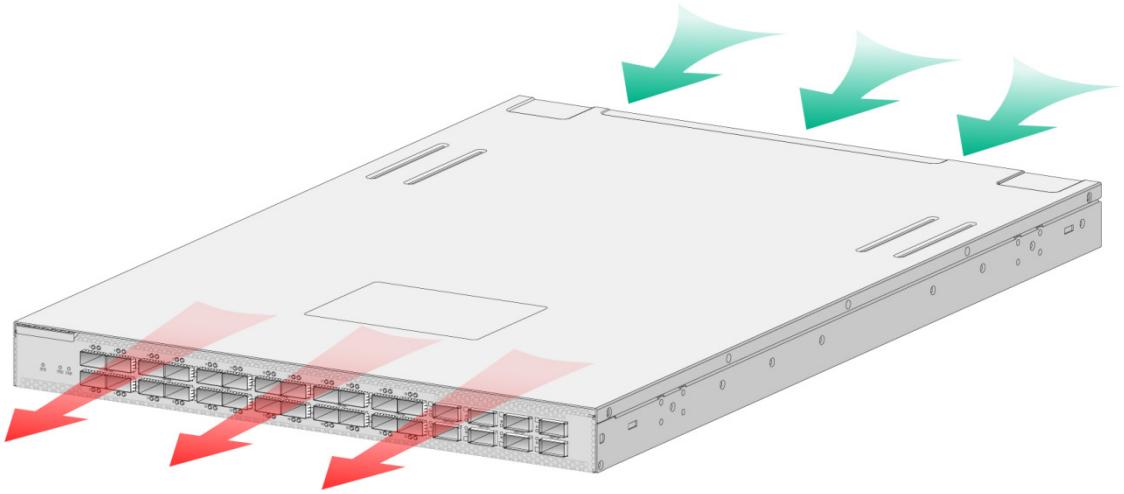


Figure5-5 Airflow from the port side to the power supply side through the S9855-40B chassis