H3C S6550X-HI Switch Series

Hardware Information and Specifications

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Preface

This document describes hardware information and specifications for S6550X-HI switch series, covering the product models and technical specifications, chassis views, removable components and their compatibilities, ports and LEDs, and cooling system.

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 S6550X-HI 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 S6550X-HI switch series includes the following models:

Product code	Product model
LS-6550X-32H-HI	S6550X-32H-HI
LS-6550X-32Q-HI	S6550X-32Q-HI
LS-6550X-56HF-HI	S6550X-56HF-HI

Technical specifications

Table1-1 Technical specifications

Item	S6550X-32H-HI	S6550X-32Q-HI	S6550X-56HF-HI
Dimensions (H × W × D)	44.0 × 440 × 400 mm (1.73 × 17.32 × 15.75 in)		
Weight	≤ 9 kg (19.84 lb)		
Console port	1 × serial console port		
Management Ethernet port	1		
USB port	1		
SFP28 port	N/A	N/A	48
QSFP+ port	N/A	28	N/A
QSFP28 port	32	4	8
Fan tray slot	4		
Power supply slot	2		
Expansion slot	1		

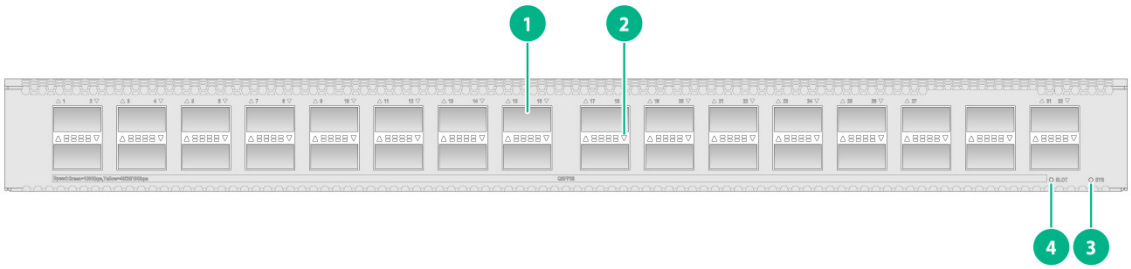
Input voltage	PSR450-12A/PSR450-12A1:
	• AC input
	  ○ Rated voltage range: 100 to 240 VAC @ 50/60 Hz
	  ○ Max voltage range: 90 to 290 VAC @ 47 to 63 Hz
	• HVDC input
	  ○ Rated voltage range: 240 VDC
	  ○ Max voltage range: 180 to 320 VDC
	PSR450-12AHD:
	• AC input		

Item	S6550X-32H-HI	S6550X-32Q-HI	S6550X-56HF-HI
	○ Rated voltage range: 100 to 240 VAC @ 50/60 Hz ○ Max voltage range: 90 to 290 VAC @ 47 to 63 Hz • HVDC input ○ Rated voltage range e: 240 to 380 VDC ○ Max voltage range: 180 to 400 VDC PSR450-12D: • Rated voltage range: –48 to –60 VDC • Max voltage range: –36 to –72 VDC		
Minimum power consumption	• Single AC input: 81.54 W • Dual AC inputs: 92.53 W • Single DC input: 82.56 W • Dual DC inputs: 90.28 W	• Single AC input: 81.54 W • Dual AC inputs: 92.53 W • Single DC input: 82.56 W • Dual DC inputs: 90.28 W	• Single AC input: 67.72 W • Dual AC inputs: 77.86 W • Single DC input: 68.39 W • Dual DC inputs: 75.09 W
Maximum power consumption	• Single AC input: 390.5 W • Dual AC inputs: 386.3 W • Single DC input: 410.1 W • Dual DC inputs: 404.2 W	• Single AC input: 325.7 W • Dual AC inputs: 323.3 W • Single DC input: 334.1 W • Dual DC inputs: 339.8 W	• Single AC input: 315.4 W • Dual AC inputs: 313.5 W • Single DC input: 324.5 W • Dual DC inputs: 328 W
Chassis leakage current compliance	• UL62368-1 • EN62368-1 • IEC62368-1 • UL60950-1 • EN60950-1 • IEC60950-1 • GB4943.1		
Melting current of power supply fuse	• PSR450-12A/PSR450-12A1/PSR450-12AHD: 10 A @ 250 V • PSR450-12D: 20 A @ 125 V		
Operating temperature	–5°C to +45°C (23°F to 113°F)		
Relative humidity	5% RH to 95% RH, noncondensing		
Fire resistance compliance	• UL62368-1 • EN62368-1 • IEC62368-1 • UL60950-1 • EN60950-1 • IEC60950-1 • GB4943.1		

2 Chassis views

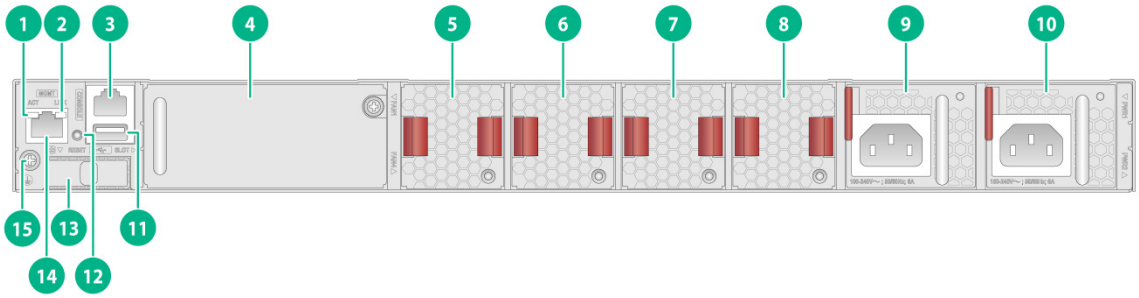
S6550X-32H-HI

Figure2-1 Front panel



(1) QSFP28 port	(2) QSFP28 port LED
(3) System status LED (SYS)	(4) Expansion module status LED (SLOT)

Figure2-2 Rear panel



(1) Management Ethernet port LED (ACT)	(2) Management Ethernet port LED (LINK)
(3) Serial console port	(4) Expansion module
(5) Removable fan tray 1	(6) Removable fan tray 2
(7) Removable fan tray 3	(8) Removable fan tray 4
(9) Removable power supply 1 (PWR1)	(10) Removable power supply 2 (PWR2)
(11) USB port	(12) Reset button
(13) SSD slot (reserved for future use)	(14) Management Ethernet port (MGMT)
(15) Grounding screw	

The S6550X-32H-HI switch came with power supply slot PWR1 empty and power supply slot PWR2 installed with a filler panel. You can install one or two power supplies for the switch as needed. In Figure2-2, two PSR450-12A1 power supplies are installed in the power supply slots.

The S6550X-32H-HI switch came with the four fan tray slots empty. You must install four fan trays of the same model for the switch. In Figure2-2, four FAN-40B-1-A fan trays are installed in the fan tray slots.

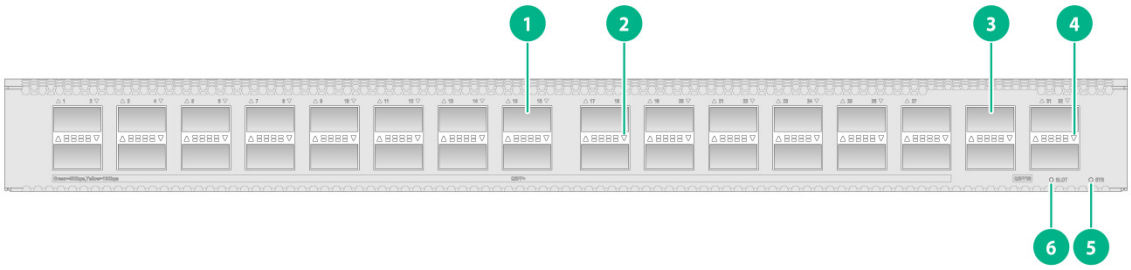
The S6550X-32H-HI switch came with the expansion slot installed with a filler panel. Install an expansion module on the switch as required. In Figure2-2, an LSWM2FPGAB interface module is installed in the expansion slot.

The S6550X-32H-HI switch provides a reset button on the rear panel for you to reset the switch.

To use both the console port and USB port on the S6550X-32H-HI switch, use a small-sized USB drive or a USB extension cable.

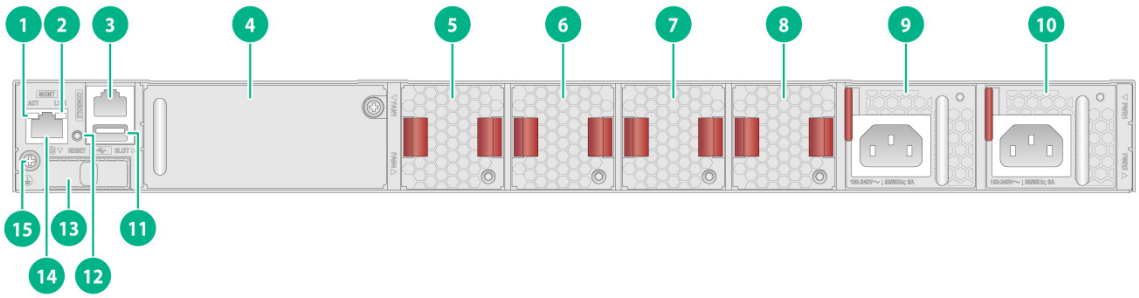
S6550X-32Q-HI

Figure2-3 Front panel



(1) QSFP+ port	(2) QSFP+ port LED
(3) QSFP28 port	(4) QSFP28 port LED
(5) System status LED (SYS)	(6) Expansion module status LED (SLOT)

Figure2-4 Rear panel



(1) Management Ethernet port LED (ACT)	(2) Management Ethernet port LED (LINK)
(3) Serial console port	(4) Expansion module
(5) Removable fan tray 1	(6) Removable fan tray 2
(7) Removable fan tray 3	(8) Removable fan tray 4
(9) Removable power supply 1 (PWR1)	(10) Removable power supply 2 (PWR2)
(11) USB port	(12) Reset button
(13) SSD slot (reserved for future use)	(14) Management Ethernet port (MGMT)
(15) Grounding screw	

The S6550X-32Q-HI switch came with power supply slot PWR1 empty and power supply slot PWR2 installed with a filler panel. You can install one or two power supplies for the switch as needed. In Figure2-4, two PSR450-12A1 power supplies are installed in the power supply slots.

The S6550X-32Q-HI switch came with the four fan tray slots empty. You must install four fan trays of the same model for the switch. In Figure2-4, four FAN-40B-1-A fan trays are installed in the fan tray slots.

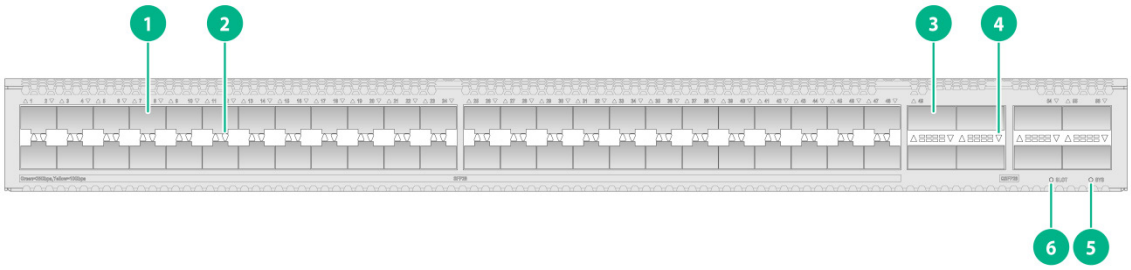
The S6550X-32Q-HI switch came with the expansion slot installed with a filler panel. Install an expansion module on the switch as required. In Figure2-4, an LSWM2FPGAB interface module is installed in the expansion slot.

The S6550X-32Q-HI switch provides a reset button on the rear panel for you to reset the switch.

To use both the console port and USB port on the S6550X-32Q-HI switch, use a small-sized USB drive or a USB extension cable.

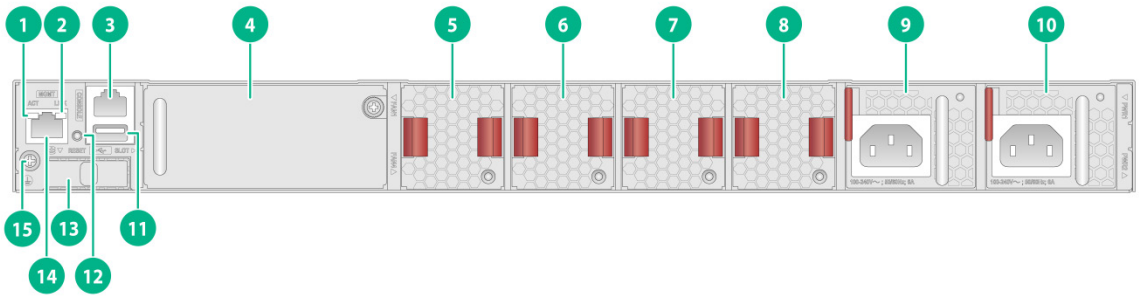
S6550X-56HF-HI

Figure2-5 Front panel



(1) SFP28 port	(2) SFP28 port LED
(3) QSFP28 port	(4) QSFP28 port LED
(5) System status LED (SYS)	(6) Expansion module status LED (SLOT)

Figure2-6 Rear panel



(1) Management Ethernet port LED (ACT)	(2) Management Ethernet port LED (LINK)
(3) Serial console port	(4) Expansion module
(5) Removable fan tray 1	(6) Removable fan tray 2
(7) Removable fan tray 3	(8) Removable fan tray 4
(9) Removable power supply 1 (PWR1)	(10) Removable power supply 2 (PWR2)
(11) USB port	(12) Reset button
(13) SSD slot (reserved for future use)	(14) Management Ethernet port (MGMT)
(15) Grounding screw	

The S6550X-56HF-HI switch came with power supply slot PWR1 empty and power supply slot PWR2 installed with a filler panel. You can install one or two power supplies for the switch as needed. In Figure2-6, two PSR450-12A1 power supplies are installed in the power supply slots.

The S6550X-56HF-HI switch came 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-A fan trays are installed in the fan tray slots.

The S6550X-56HF-HI switch came with the expansion slot installed with a filler panel. Install an expansion module on the switch as required. In Figure2-6, an LSWM2FPGAB interface module is installed in the expansion slot.

The S6550X-56HF-HI switch provides a reset button on the rear panel for you to reset the switch.

To use both the console port and USB port on the S6550X-56HF-HI switch, use a small-sized USB drive or a USB extension cable.

3 FRUs

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

Table3-1 FRUs available for the switch

FRUs	S6550X-32H-HI/S6550X-32Q-HI/S6550X-56HF-HI
Power supplies	
PSR450-12A	Yes
PSR450-12A1	Yes
PSR450-12AHD	Yes
PSR450-12D	Yes
Fan trays	
FAN-40B-1-A	Yes
FAN-40F-1-A	Yes
Expansion modules	
LSWM2EC	Yes
LSWM2-iMC	Yes
LSWM2FPGAB	Yes
LSPM6FWD	Yes

Power supplies

CAUTION:

When the switch has power supplies in 1+1 redundancy, you can replace a power supply without powering off the switch. Before replacing a power supply, make sure it is powered off.

The switch uses removable power supplies. You can install one power supply, or two power supplies in 1+1 redundancy for the switch.

You can install two power supplies of different models on the same switch.

Table3-2 Power supply specifications

Power supply model	Item		Specifications
PSR450-12A PSR450-12A1	AC input	Rated input voltage	100 to 240 VAC @ 50 or 60 Hz
		Max input voltage	90 to 290 VAC @ 47 to 63 Hz
		Max output power	450 W
	HVDC input	Rated input voltage	240 VDC
		Max input voltage	180 to 320 VDC

Power supply model	Item		Specifications
		Max output power	450 W
PSR450-12AHD	AC input	Rated input voltage	100 to 240 VAC @ 50 or 60 Hz
		Max input voltage	90 to 290 VAC @ 47 to 63 Hz
		Max output power	450 W
	HVDC input	Rated input voltage	240 to 380 VDC
		Max input voltage	180 to 400 VDC
		Max output power	450 W
PSR450-12D	DC input	Rated input voltage	–48 to –60 VDC
		Max input voltage	–36 to –72 VDC
		Max output power	450 W

Fan trays

CAUTION:
For adequate heat dissipation, you must install fan trays of the same model for the switch.

Table3-3 Fan tray specifications

Fan tray model	Item	Specifications
• FAN-40B-1-A (from the port side to the power supply side) • FAN-40F-1-A (from the power supply side to the port side)	Dimensions (H × W × D)	40 × 40.6 × 117 mm (1.57 × 1.60 × 4.61 in)
	Fan speed	21000 R.P.M
	Max airflow	26 CFM (0.74 m^3/min)
	Input voltage	12 V
	Maximum power consumption	27.72 W
	Documentation reference	*H3C FAN-40F-1-A & FAN-40B-1-A Fan Trays User Guide*

Expansion modules

Table3-4 Expansion module description

Expansion module model	Introduction	Description
LSWM2EC	The LSWM2EC EPS scanner module scans network-wide endpoints as instructed by the EPS server for port type and operating system type automatically and sends scanning results to the EPS server. Upon receiving the port information, the EPS server provides a baseline management over the endpoints that	For more information about the module, see *H3C LSWM2EC EPS Scanner Module User Manual*.

Expansion module model	Introduction	Description
	access the network system. By using this module on a switch, you can save hardware resources, increase the number of endpoints that can be scanned, and perform incremental scanning.	
LSWM2-iMC	The LSWM2-iMC intelligent network management module provides terminal admission network management for small and medium-sized campus networks. The module aims to provide network management solutions that integrate the terminal users, resources, and network services for network administrators.	For more information about the module, see *H3C LSWM2-iMC Intelligent Network Management Module User Manual*.
LSWM2FPGAB	The LSWM2FPGAB NetStream interface module offers unidirectional NetStream and session-based bidirectional NetStream. After the device copies traffic to the LSWM2FPGAB NetStream interface module, the field programmable gate array (FPGA) chip in the module collects and analyzes traffic statistics and creates NetStream entries. This NetStream approach saves ACL resources, improves NetStream entry creation performance, and greatly reduces NetStream impact on the device forwarding performance.	For more information about the module specifications, see *H3C LSWM2FPGAB NetStream Interface Module User Manual*.
LSPM6FWD	The module is a fourth-generation high performance firewall module. It provides features including firewall, VPN, content filtering, content identification, URL filtering, and NAT. By using this module on a switch, you can enhance the switch security capabilities without changing the network topology.	For more information about the module specifications, see *H3C LSPM6FWD Card Manual*.

NOTE:

The LSWM2FPGAB interface module adds 55 mm (2.17 in) to the chassis depth. An interface module of other models (including its handle) adds 75 mm (2.95 in) to the chassis depth.

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

Ports

Console port

Table4-1 Console port specifications

Item	Specification
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 a serial port of a local terminal (for example a PC) running a terminal emulation program.
Compatible devices	All device models

Management Ethernet port

Table4-2 Management Ethernet port specifications

Item	Specification
Connector type	RJ-45
Port transmission rate	• 10 Mbps, half/full duplex • 100 Mbps, half/full duplex • 1000 Mbps, full duplex • MDI/MDI-X autosensing
Transmission medium	Category 5 or above twisted pair cable
Max transmission distance	100 m (328.08 ft)
Compliant standard	IEEE 802.3i, 802.3u, and 802.3ab
Functions and services	Connects to a computer or remote network management work station for upgrading and managing applications and Boot ROM
Compatible devices	All device models

USB port

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.

Table4-3 USB port specifications

Item	Specification
Interface type	USB 2.0
Compliant standard	OHC
Port transmission rate	Uploads and downloads data at a rate up to 480 Mbps
Functions and services	Accesses the file system on the flash of the switch, for example, to upload or download application and configuration files
Compatible devices	All device models

SFP28 ports

Table4-4 SFP28 port specifications

Item	Specification
Interface type	SFP28 port
Compatible transceiver modules and cables	• SFP28 transceiver modules and cables in Table4-5, Table4-6, and Table4-7 • 10-GE SFP+ transceiver modules and cables in Table4-8, Table4-9, and Table4-10
Compatible devices	S6550X-56HF-HI

Table4-5 SFP28 transceiver modules available for the SFP28 ports

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	Multimode, 50/125	2000	• FEC negotiation disabled: 30 m (98.43 ft) • FEC negotiation enabled: 70 (229.66 ft)
				4700	• FEC negotiation disabled: 40 m (131.23 ft) • FEC negotiation enabled: 100 m (328.08 ft)

SFP28 transceiver module	Central wavelength (nm)	Connector	Fiber type and diameter (μm)	Modal bandwidth (MHz*km)	Maximum transmission distance
SFP-25G-LR-SM1310	1310	LC	Single mode, 9/125	N/A	10 km (6.21 miles)

NOTE:

For more information about FEC negotiation, see Ethernet interfaces in *H3C S6550X-HI Switch Series Layer 2–LAN Switching Configuration Guide*.

Table4-6 25G SFP28 copper cables available for the SFP28 ports

25G SFP28 copper cable	Max transmission distance
SFP-25G-D-CAB-1M	1 m (3.28 ft)
SFP-25G-D-CAB-3M	3 m (9.84 ft)
SFP-25G-D-CAB-5M	5 m (16.40 ft)

Table4-7 25G SFP28 fiber cables available for the SFP28 ports

25G SFP28 fiber cable	Max transmission distance
SFP-25G-D-AOC-3M	3 m (9.84 ft)
SFP-25G-D-AOC-5M	5 m (16.40 ft)
SFP-25G-D-AOC-7M	7 m (22.97 ft)
SFP-25G-D-AOC-10M	10 m (32.81 ft)
SFP-25G-D-AOC-20M	20 m (65.62 ft)

Table4-8 10-GE SFP+ transceiver modules available for the SFP28 ports

10-GE SFP+ transceiver module	Central wavelength (nm)	Connector	Fiber type and diameter (μm)	Modal bandwidth (MHz × km)	Max transmission distance
SFP-XG-SX-MM850-D	850	LC	Multimode, 50/125	2000	300 m (984.25 ft)
				500	82 m (269.03 ft)
				400	66 m (216.54 ft)
			Multimode, 62.5/125	200	33 m (108.27 ft)
				160	26 m (85.30 ft)
SFP-XG-LX-SM1310-D	1310	LC	Single mode, 9/125	N/A	10 km (6.21 miles)
SFP-XG-LX-SM1270-BIDI	1270	LC	Single mode, 9/125	N/A	10 km (6.21 miles)
SFP-XG-LX-SM1330-BIDI	1330	LC	Single mode, 9/125	N/A	10 km (6.21 miles)
SFP-XG-LH40-SM1270-BIDI	1270	LC	Single mode, 9/125	N/A	40 km (24.86 miles)
SFP-XG-LH40	1550	LC	Single mode,	N/A	40 km (24.86

10-GE SFP+ transceiver module	Central wavelength (nm)	Connector	Fiber type and diameter (μm)	Modal bandwidth (MHz × km)	Max transmission distance
-SM1550			9/125		miles)
SFP-XG-LH40 -SM1330-BIDI	1330	LC	Single mode, 9/125	N/A	40 km (24.86 miles)
SFP-XG-LH80 -SM1550-BIDI	1550	LC	Single mode, 9/125	N/A	80 km (49.71 miles)
SFP-XG-LH80 -SM1490-BIDI	1490	LC	Single mode, 9/125	N/A	80 km (49.71 miles)
SFP-XG-LH80 -SM1550	1550	LC	Single mode, 9/125	N/A	80 km (49.71 miles)

Table4-9 SFP+ copper cables available for the SFP28 ports

SFP+ copper cable	Max transmission distance
LSWM1STK	0.65 m (2.13 ft)
LSWM2STK	1.2 m (3.94 ft)
LSWM3STK	3 m (9.84 ft)
LSTM1STK	5 m (16.40 ft)

Table4-10 SFP+ fiber cables available for the SFP28 ports

SFP+ fiber cable	Max transmission distance
SFP-XG-D-AOC-7M	7 m (22.97 ft)
SFP-XG-D-AOC-10M	10 m (32.81 ft)
SFP-XG-D-AOC-20M	20 m (65.62 ft)

IMPORTANT:

- BIDI transceiver modules transmit and receive different central wavelengths for bidirectional transmission of optical signals on a single fiber.
- BIDI transceiver modules must be used in matched pairs. For example, if one end uses an SFP-XG-LX-SM1270-BIDI transceiver module, the other end must use an SFP-XG-LX-SM1330-BIDI transceiver module.

QSFP+ ports

Table4-11 QSFP+ port specifications

Item	Specification
Interface type	QSFP+ port
Compatible transceiver modules and cables	QSFP+ transceiver modules and cables in Table4-12, Table4-13, Table4-14, and Table4-15
Compatible devices	S6550X-32Q-HI
Restrictions and guidelines	You can use a QSFP-40G-SR4-MM850 or QSFP-40G-CSR4-MM850 transceiver module to connect one 40G QSFP+ port to four 10G SFP+ ports.

Item	Specification
	The QSFP+ transceiver module and SFP+ transceiver modules to be connected must be the same in specifications, including central wavelength and fiber type.

Table4-12 QSFP+ transceiver modules available for the QSFP+ ports

QSFP+ transceiver module	Central wavelength (nm)	Connector	Fiber type and diameter (μm)	Modal bandwidth (MHz × km)	Max transmission distance
QSFP-40G-SR4-MM850	850	MPO (PC-polished, 12-core)	Multimode, 50/125	2000	100 m (328.08 ft)
				4700	150 m (492.13 ft)
QSFP-40G-CSR4-MM850	850	MPO (PC-polished, 12-core)	Multimode, 50/125	2000	300 m (984.25 ft)
				4700	400 m (1312.34 ft)
QSFP-40G-BIDI-SR-MM850	850	LC	Multimode, 50/125	2000	100 m (328.08 ft)
				4700	150 m (492.13 ft)
QSFP-40G-BIDI-WDM850	Four lanes: • 850 • 880 • 910 • 940	LC	Multimode, 50/125	2000	240 m (787.40 ft)
				4700	350 m (1148.29 ft)
QSFP-40G-LR4-WDM1300	Four lanes: • 1271 • 1291 • 1311 • 1331	LC	Single mode, 9/125	N/A	10 km (6.21 miles)
QSFP-40G-LR4L-WDM1300	Four lanes: • 1271 • 1291 • 1311 • 1331	LC	Single mode, 9/125	N/A	2 km (1.24 miles)
QSFP-40G-ER4-WDM1300	Four lanes: • 1271 • 1291 • 1311 • 1331	LC	Single mode, 9/125	N/A	40 km (24.86 miles)

Table4-13 QSFP+ copper cables available for the QSFP+ ports

QSFP+ copper cable	Max transmission distance
LSWM1QSTK0	1 m (3.28 ft)
LSWM1QSTK1	3 m (9.84 ft)
LSWM1QSTK2	5 m (16.40 ft)

Table4-14 QSFP+ fiber cables available for the QSFP+ ports

QSFP+ fiber cable	Cable length
QSFP-40G-D-AOC-3M	3 m (9.84 ft)
QSFP-40G-D-AOC-7M	7 m (22.97 ft)
QSFP-40G-D-AOC-10M	10 m (32.81 ft)
QSFP-40G-D-AOC-20M	20 m (65.62 ft)

Table4-15 QSFP+ to SFP+ copper cables available for the QSFP+ ports

QSFP+ to SFP+ copper cable	Max transmission distance
LSWM1QSTK3	1 m (3.28 ft)
LSWM1QSTK4	3 m (9.84 ft)
LSWM1QSTK5	5 m (16.40 ft)

QSFP28 ports

Table4-16 QSFP28 port specifications

Item	Specification
Interface type	QSFP28 port
Compatible transceiver modules and cables	• QSFP+ transceiver modules and cables in Table4-12, Table4-13, Table4-14, and Table4-15 • QSFP28 transceiver modules and cables in Table4-17, Table4-18, Table4-19, and Table4-20
Compatible devices	All device models
Restrictions and guidelines	• You can use a QSFP-100G-SR4-MM850 transceiver module to connect one 100G QSFP28 port to four 25G SFP28 ports. The QSFP28 transceiver module and SFP28 transceiver modules to be connected must be the same in specifications, including central wavelength and fiber type. • Interfaces numbered 29, 31, and 32 on the front panel of the S6550X-32H-HI or S6550X-32Q-HI switch do not support port split.

Table4-17 QSFP28 transceiver modules available for the QSFP28 ports

QSFP28 transceiver module or cable	Central wavelength (nm)	Connector	Fiber type and diameter (μm)	Modal bandwidth (MHz*km)	Maximum transmission distance
QSFP-100G-SR4-MM850	850	MPO (PC polished, 12-fiber)	Multimode, 50/125	2000	70 m (229.66 ft)
				4700	100 m (328.08 ft)
QSFP-100G-LR4-WDM1300	Four lanes: • 1295 • 1300 • 1304 • 1309	LC	Single mode, 9/125	N/A	10 km (6.21 miles)

QSFP28 transceiver module or cable	Central wavelength (nm)	Connector	Fiber type and diameter (µm)	Modal bandwidth (MHz*km)	Maximum transmission distance
QSFP-100G-LR4L-WDM1300	Four lanes: • 1264.5 to 1277.5 • 1284.5 to 1297.5 • 1304.5 to 1317.5 • 1324.5 to 1337.5	LC	Single mode, 9/125	N/A	2 km (1.24 miles)
QSFP-100G-ER4L-WDM1300	Four lanes: • 1295.56 • 1300.05 • 1304.58 • 1309.14	LC	Single mode, 9/125	N/A	40 km (24.86 miles)

Table4-18 QSFP28 copper cables available for the QSFP28 ports

QSFP28 copper cable	Cable length
QSFP-100G-D-CAB-1M	1 m (3.28 ft)
QSFP-100G-D-CAB-3M	3 m (9.84 ft)
QSFP-100G-D-CAB-5M	5 m (16.40 ft)

Table4-19 QSFP28 fiber cables available for the QSFP28 ports

QSFP28 fiber cable	Cable length
QSFP-100G-D-AOC-7M	7 m (22.97 ft)
QSFP-100G-D-AOC-10M	10 m (32.81 ft)
QSFP-100G-D-AOC-20M	20 m (65.62 ft)

Table4-20 QSFP28 to SFP28 copper cables available for the QSFP28 ports

QSFP28 to SFP28 copper cable	Cable length
QSFP-100G-4SFP-25G-CAB-1M	1 m (3.28 ft)
QSFP-100G-4SFP-25G-CAB-3M	3 m (9.84 ft)
QSFP-100G-4SFP-25G-CAB-5M	5 m (16.40 ft)

NOTE:

MPO connectors include physical contact (PC) connectors with a flat-polished face and angle-polished contact (APC) connectors with an angle-polished face (8°).

LEDs

System status LED

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

Table4-21 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 has failed to pass POST or has problems such as fan failure.
	Off	The switch is powered off or has failed to start up.

QSFP28 port LEDs

Table4-22 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	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 LEDs

Table4-23 QSFP+ port LED description

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

SFP28 port LEDs

Table4-24 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 25 Gbps.
Flashing green	The port is sending or receiving data at 25 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.

Management Ethernet port LEDs

The switch provides two status LEDs LINK and ACT for the copper management Ethernet port.

Table4-25 Copper management Ethernet port LED description

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.

Expansion module status LEDs

The switch provides an expansion module status LED to indicate the operating status of the expansion module.

Table4-26 Expansion module status LED description

LED mark	Status	Description
SLOT	Steady green	The expansion module is operating correctly.
	Flashing yellow	The expansion module in the slot is not supported or the expansion module is faulty.
	Off	No expansion module is installed.

Fan tray alarm LEDs

The FAN-40B-1-A and FAN-40F-1-A fan trays each provide an alarm LED. For more information about the LED, see the user guide for the fan tray.

Power supply alarm LEDs

The PSR450-12A, PSR450-12A1, PSR450-12AHD, and PSR450-12D power supplies each provide an alarm LED. For more information about the LED, see the user manual for the power supply.

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 provide adequate heat dissipation and ensure system stability. Consider the site ventilation design when you plan the installation site for the switch.

Table5-1 Cooling system for the switch

Available fan trays	Airflow direction
FAN-40F-1-A	From the power supply side to the port side
FAN-40B-1-A	From the port side to the power supply side

Figure5-1 Airflow from the power supply side to the port side (with FAN-40F-1-A fan trays)

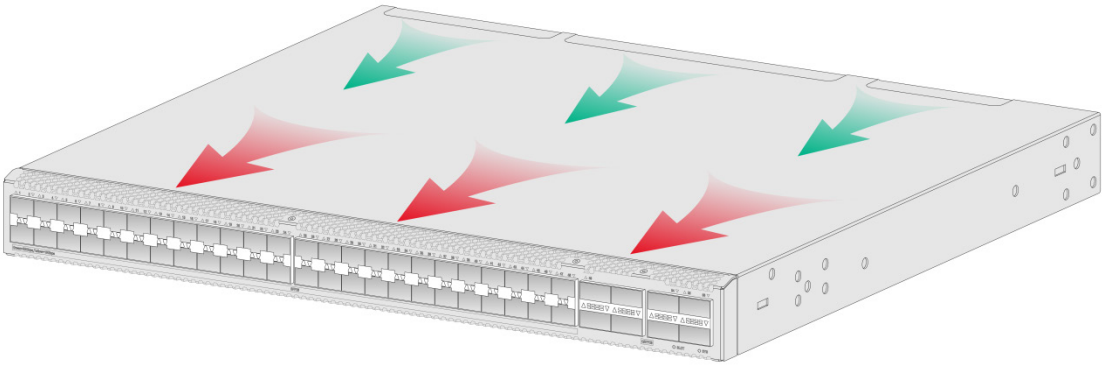


Figure5-2 Airflow from the port side to the power supply side (with FAN-40B-1-A fan trays)