4 Chassis

4.1 Chassis Overview

The S series fixed Ethernet switches integrate the access and transmission functions to provide reliable access/aggregation and high-quality transmission of services on enterprise networks. The switches are built on an integrated hardware platform, and their hardware system consists of the chassis, power module, fan module, and Switch Control Unit (SCU).

The S110 series are unmanaged switches and do not support web-based or SNMP-based management.

4.2 Naming Conventions

Figure 4-1 Switch naming conventions

NOTE

The uplink and downlink ports mentioned in this document refer to the recommended usage of the ports, and do not indicate that the corresponding ports can be used only for the downlink or uplink.

Table 4-1 Switch naming convention description

Identifier	Description
A	Product series (4 characters) • S110: S110 series • S220: S220 series • S310: S310 series • S530: S530 series
B	Number of downlink ports (1 or 2 characters)
C	Downlink port type (1 or 2 characters) • **T**: GE electrical port • **S**: GE optical port • **P**: GE electrical port, supporting PoE+ • **PN**: 2.5GE electrical port, supporting PoE+ • **LP**: GE electrical port, supporting PoE+ and low PoE power • **ST**: GE optical port and GE electrical port or combo port
D	Number of uplink ports (1 character)
E	Uplink port type (1 or 2 characters) • **T**: GE electrical port • **S**: GE optical port • **ST**: GE optical port and GE electrical port or combo port • **X**: 10GE optical port
F	Special function type (0 or 1 character) • By default, this field is left empty. • **R**: indicates a rack-mounted model, which is involved only in the S110 series. • **E**: the switch supports independent stack ports.

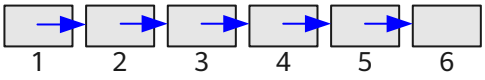
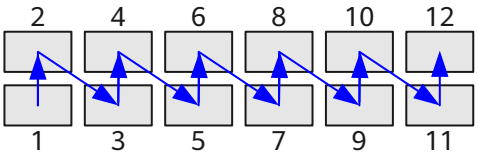
4.3 Port Numbering Conventions (Applicable to S110 Devices)

Physical ports are numbered in the following way:

A single switch uses slot ID/subcard ID/port sequence number to identify physical ports.

- Slot ID: indicates the slot where the switch is located. The value is 0.
- Subcard ID: indicates the ID of a subcard. The default value is 0 for models without subcards.
- Port sequence number: indicates the sequence number of a port on the switch.

Table 4-2 Port numbering conventions

Port Numbering Diagram	Description
	There is one rows of service ports on the device. These ports are numbered from left to right, starting from 1.
	There are two rows of service ports on the device. These ports are numbered from bottom to top and left to right, starting from 1. For example, the port on the top left is numbered 0/0/2.

4.4 Port Numbering Conventions (Applicable to S220, S310, and S530 Devices)

Physical ports are numbered in the following way:

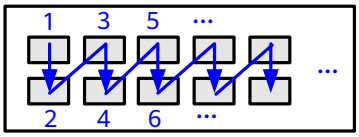
A single switch uses slot ID/subcard ID/port sequence number to identify physical ports.

- Slot ID: indicates the slot where the switch is located. The value is 1.
- Subcard ID: indicates the ID of a subcard. The default value is 0 for models without subcards.
- Port sequence number: indicates the sequence number of a port on the switch.

A stacked switch uses stack ID/subcard ID/port sequence number to identify physical ports.

- Stack ID: indicates the ID of a stacked switch. The value ranges from 1 to 9.
- Subcard ID: indicates the ID of a subcard. The default value is 0 for models without subcards.
- Port sequence number: indicates the sequence number of a port on the switch.

Table 4-3 Port numbering conventions

Port Numbering Diagram	Description
	There are two rows of service ports on the device. These ports are numbered from top to bottom and left to right, starting from 1. For example, the port on the top left is numbered 1/0/1. Ports of different speeds are numbered separately. For example, the first GE port is numbered GE1/0/1, the first 10GE port is numbered 10GE1/0/1. Ports with the same rate are numbered in ascending order.

4.5 S110

4.5.1 S110-8T2ST

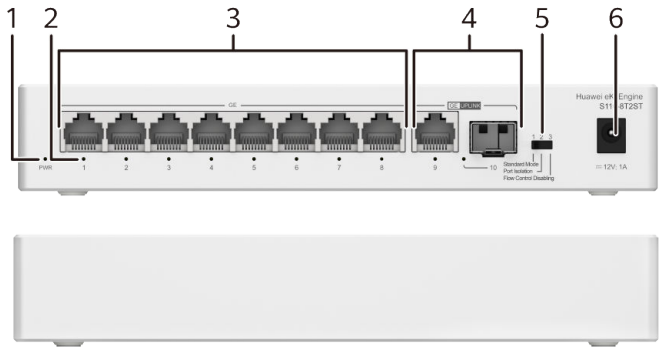
Overview

Table 4-4 Basic information about the S110-8T2ST

Item	Details
Description	S110-8T2ST (8*10/100/1000BASE-T ports, 1*GE SFP port, 1*10/100/1000BASE-T port, with 1*AC power adapter, fanless)
Part Number	98012199
Model	S110-8T2ST

Components

Figure 4-2 S110-8T2ST appearance



1	PWR indicator	2	Port indicator
3	Eight GE electrical ports	4	One GE electrical port and one GE optical port
5	Port mode switch button **NOTE** Standard Mode: All ports are in the same VLAN, and the flow control function is enabled. Port Isolation: All downlink ports are isolated from each other and cannot communicate with each other. Downlink ports can communicate only with uplink ports. Uplink ports are not isolated or aggregated. Flow Control Disabling: All ports are in the same VLAN and flow control is disabled.	6	Power adapter socket **NOTE** Use the power adapter (12 V 1 A) delivered with the device.

Ports

Table 4-5 Ports on the S110-8T2ST

Port	Connector Type	Description	Available Components
GE electrical port	RJ45	A GE electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
GE optical port	SFP	A GE optical port can send and receive data at 100/1000 Mbit/s.	• **FE SFP/eSFP optical modules (only optical modules with transmission distances less than or equal to 15 km are supported)** • **GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported)**

Indicators and Buttons

Table 4-6 Description of indicators on the device

Indicator	Color	Status	Description
PWR indicator	-	Off	The device is powered off.
	Green	Steady on	The power supply is normal.
Port indicator	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port. **NOTE** During device startup, all port indicators are steady green for about 2 seconds and then off, indicating that service initialization is complete.
	Green	Blinking	The port is sending or receiving data.

Power Supply System

The device is powered by the power adapter delivered with the device.

Heat Dissipation System

The device has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-7 Technical specifications of the S110-8T2ST

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 35 mm x 210.0 mm x 130.0 mm (1.38 in. x 8.27 in. x 5.12 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 36.5 mm x 210.0 mm x 131.7 mm (1.44 in. x 8.27 in. x 5.19 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 285.0 mm x 180.0 mm (3.54 in. x 11.22 in. x 7.09 in.)
Chassis height [U]	0.8 U
Chassis material	PC+ABS
Weight without packaging [kg(lb)]	0.46 kg (1.01 lb)
Weight with packaging [kg(lb)]	0.70 kg (1.54 lb)
Typical power consumption [W]	8 W
Typical heat dissipation [BTU/hour]	27.30 BTU/hour
Maximum power consumption [W]	8.4 W
Maximum heat dissipation [BTU/hour]	28.66 BTU/hour
Static power consumption [W]	2 W
MTBF [years]	86.16 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans), < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans), < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0

Item	Specification
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Uplink ports	1 x GE SFP port and 1 x 10/100/1000BASE-T port
Downlink ports	8 x 10/100/1000BASE-T ports
Working mode	• Standard mode • Port isolation • Flow control disabling
MAC address entry	2K
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Power adapter
Rated input voltage [V]	Power adapter input: 100–240 V AC; 50/60 Hz Power adapter output: 12 V DC
Input voltage range [V]	Power adapter input: 90 V AC to 264 V AC; 47 Hz to 63 Hz
Maximum input current [A]	1 A
Memory	-
Flash memory	-
Console port	Not supported

Item	Specification
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±4 kV
Power supply surge protection [kV]	±2 kV in differential mode, ±4 kV in common mode
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.5.2 S110-8P2ST (98012195)

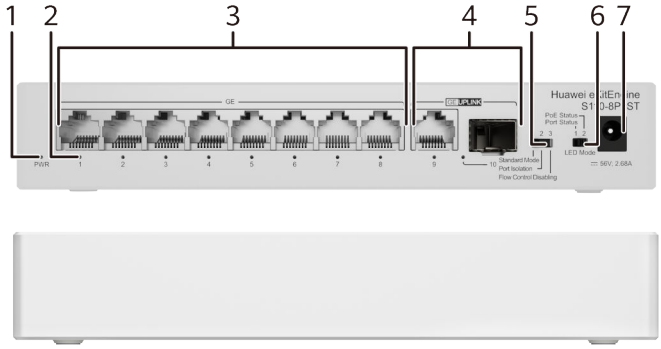
Overview

Table 4-8 Basic information about the S110-8P2ST

Item	Details
Description	S110-8P2ST (8*10/100/1000BASE-T ports, PoE+, 1*GE SFP port, 1*10/100/1000BASE-T port, AC power, power adapter)
Part Number	98012195
Model	S110-8P2ST

Components

Figure 4-3 S110-8P2ST appearance



1	PWR indicator	2	Port indicator
3	Eight GE PoE+ electrical ports	4	One GE electrical port and one GE optical port
5	Port mode switch button **NOTE** Standard Mode: All ports are in the same VLAN, and the flow control function is enabled. Port Isolation: All downlink ports are isolated from each other and cannot communicate with each other. Downlink ports can communicate only with uplink ports. Uplink ports are not isolated or aggregated. Flow Control Disabling: All ports are in the same VLAN and flow control is disabled.	6	Port indicator status switch button **NOTE** Port status: The port indicator indicates the data transmission status of the port. PoE status: The port indicator indicates the PoE status of the port.
7	Power adapter socket **NOTE** Use the power adapter (56 V 2.68 A) delivered with the device.	-	-

Ports

Table 4-9 Ports on the S110-8P2ST

Port	Connector Type	Description	Available Components
GE PoE+ electrical port	RJ45	A GE PoE+ electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	**Ethernet cable**
GE electrical port	RJ45	A GE electrical port sends and receives service data at 10/100/1000 Mbit/s.	**Ethernet cable**
GE optical port	SFP	A GE optical port can send and receive data at 100/1000 Mbit/s.	• **FE SFP/eSFP optical modules (only optical modules with transmission distances less than or equal to 15 km are supported)** • **GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported)**

Indicators and Buttons

Table 4-10 Description of indicators on the device

Indicator	Color	Status	Description
PWR indicator	-	Off	The device is powered off.
	Green	Steady on	The power supply is normal.
Port indicator (Port status)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port. **NOTE** During device startup, all port indicators are steady green for about 2 seconds and then off, indicating that service initialization is complete.
	Green	Blinking	The port is sending or receiving data.
Port indicator (PoE status)	-	Off	The port is not supplying PoE power.
	Green	Steady on	The port is supplying power to the connected PD.
	Green	Blinking	The PoE power of the device is insufficient, and the port cannot provide power to the PD.

Power Supply System

The device uses the power adapter delivered with the device to supply power to the device and the connected PD. The power adapter can provide 124 W PoE power, which ensures full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at.

Heat Dissipation System

The device has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-11 Technical specifications of the S110-8P2ST

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 35 mm x 210.0 mm x 130.0 mm (1.38 in. x 8.27 in. x 5.12 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 36.5 mm x 210.0 mm x 131.7 mm (1.44 in. x 8.27 in. x 5.19 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	150.0 mm x 270.0 mm x 200.0 mm (5.91 in. x 10.63 in. x 7.87 in.)
Chassis height [U]	0.8 U
Chassis material	PC+ABS
Weight without packaging [kg(lb)]	1.11 kg (2.45 lb)
Weight with packaging [kg(lb)]	1.46 kg (3.22 lb)
Typical power consumption [W]	11 W
Typical heat dissipation [BTU/hour]	37.53 BTU/hour
Maximum power consumption [W]	Without PoE: 11 W Full PoE load: 155 W (PoE: 124 W)
Maximum heat dissipation [BTU/hour]	• Without PoE: 37.53 • Full PoE load: 528.88
Static power consumption [W]	4 W
MTBF [years]	78.77 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans), < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans), < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0

Item	Specification
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Uplink ports	1 x GE SFP port and 1 x 10/100/1000BASE-T port
Downlink ports	8 x 10/100/1000BASE-T ports (124 W PoE+)
Working mode	• Standard mode • Port isolation • Flow control disabling
MAC address entry	2K
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Power adapter
Rated input voltage [V]	Power adapter input: 100–240 V AC; 50/60 Hz Power adapter output: 56 V DC
Input voltage range [V]	Power adapter input: 90 V AC to 264 V AC; 47 Hz to 63 Hz
Maximum input current [A]	2.68 A
Memory	-
Flash memory	-

Item	Specification
Console port	Not supported
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±4 kV
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.5.3 S110-8P2ST (98012269)

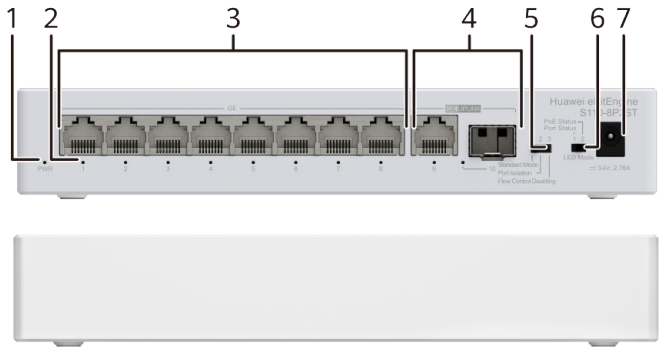
Overview

Table 4-12 Basic information about the S110-8P2ST

Item	Details
Description	S110-8P2ST (8*10/100/1000BASE-T ports, PoE+, 1*GE SFP port, 1*10/100/1000BASE-T port, AC power, power adapter)
Part Number	98012269
Model	S110-8P2ST

Components

Figure 4-4 S110-8P2ST appearance



NOTE

The power adapter of this device has been upgraded, and the power input specification has been changed from 56 V, 2.68 A to 54 V, 2.78 A. Devices delivered over different periods may have different appearances.

1	PWR indicator	2	Port indicator
3	Eight GE PoE+ electrical ports	4	One GE electrical port and one GE optical port
5	Port mode switch button **NOTE** Standard Mode: All ports are in the same VLAN, and the flow control function is enabled. Port Isolation: All downlink ports are isolated from each other and cannot communicate with each other. Downlink ports can communicate only with uplink ports. Uplink ports are not isolated or aggregated. Flow Control Disabling: All ports are in the same VLAN and flow control is disabled.	6	Port indicator status switch button **NOTE** Port status: The port indicator indicates the data transmission status of the port. PoE status: The port indicator indicates the PoE status of the port.
7	Power adapter socket **NOTE** Use the power adapter (54 V 2.78 A) delivered with the device.	-	-

Ports

Table 4-13 Ports on the S110-8P2ST

Port	Connector Type	Description	Available Components
GE PoE+ electrical port	RJ45	A GE PoE+ electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	**Ethernet cable**
GE electrical port	RJ45	A GE electrical port sends and receives service data at 10/100/1000 Mbit/s.	**Ethernet cable**
GE optical port	SFP	A GE optical port can send and receive data at 100/1000 Mbit/s.	• **FE SFP/eSFP optical modules (only optical modules with transmission distances less than or equal to 15 km are supported)** • **GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported)**

Indicators and Buttons

Table 4-14 Description of indicators on the device

Indicator	Color	Status	Description
PWR indicator	-	Off	The device is powered off.
	Green	Steady on	The power supply is normal.
Port indicator (Port status)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port. **NOTE** During device startup, all port indicators are steady green for about 2 seconds and then off, indicating that service initialization is complete.
	Green	Blinking	The port is sending or receiving data.
Port indicator (PoE status)	-	Off	The port is not supplying PoE power.
	Green	Steady on	The port is supplying power to the connected PD.
	Green	Blinking	The PoE power of the device is insufficient, and the port cannot provide power to the PD.

Power Supply System

The device uses the power adapter delivered with the device to supply power to the device and the connected PD. The power adapter can provide 124 W PoE power, which ensures full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at.

Heat Dissipation System

The device has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-15 Technical specifications of the S110-8P2ST

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 35 mm x 210.0 mm x 130.0 mm (1.38 in. x 8.27 in. x 5.12 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 36.5 mm x 210.0 mm x 131.7 mm (1.44 in. x 8.27 in. x 5.19 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	150.0 mm x 270.0 mm x 200.0 mm (5.91 in. x 10.63 in. x 7.87 in.)
Chassis height [U]	0.8 U
Chassis material	PC+ABS
Weight without packaging [kg(lb)]	0.91 kg (2.01 lb)
Weight with packaging [kg(lb)]	1.46 kg (3.22 lb)
Typical power consumption [W]	11 W
Typical heat dissipation [BTU/hour]	37.53 BTU/hour
Maximum power consumption [W]	Without PoE: 11 W Full PoE load: 155 W (PoE: 124 W)
Maximum heat dissipation [BTU/hour]	• Without PoE: 37.53 • Full PoE load: 528.88
Static power consumption [W]	3 W
MTBF [years]	78.77 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans), < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans), < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0

Item	Specification
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Uplink ports	1 x GE SFP port and 1 x 10/100/1000BASE-T port
Downlink ports	8 x 10/100/1000BASE-T ports (124 W PoE+)
Working mode	• Standard mode • Port isolation • Flow control disabling
MAC address entry	2K
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Power adapter
Rated input voltage [V]	Power adapter input: 170 V AC to 240 V AC; 50/60 Hz Power adapter output: 54 V DC
Input voltage range [V]	Power adapter input: 170 V AC to 264 V AC; 47 Hz to 63 Hz
Maximum input current [A]	2.78 A
Memory	-
Flash memory	-

Item	Specification
Console port	Not supported
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±4 kV
Power supply surge protection [kV]	±4 kV in differential mode and ±4 kV in common mode
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.5.4 S110-16T2S

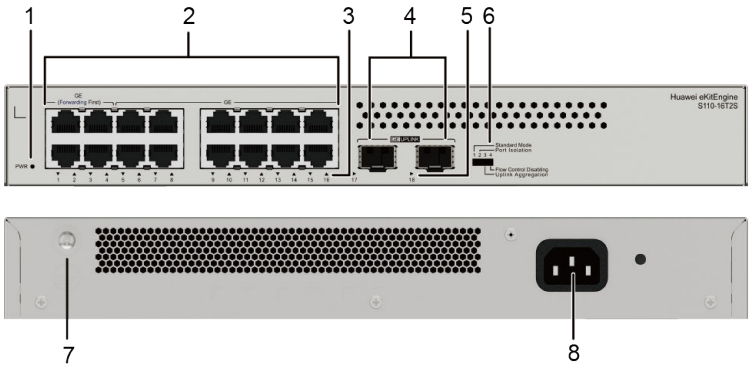
Overview

Table 4-16 Basic information about the S110-16T2S

Item	Details
Description	S110-16T2S (16*10/100/1000BASE-T ports, 2*GE SFP ports, built-in AC power, fanless)
Part Number	98012200
Model	S110-16T2S

Components

Figure 4-5 S110-16T2S appearance



1	PWR indicator	2	Sixteen GE electrical ports **NOTE** This function is available on ports 1 to 4. With this function, traffic on ports 1 to 4 is preferentially forwarded when traffic congestion occurs on uplink ports.
3	Electrical port indicator	4	Two GE optical ports
5	Optical port indicator	6	Port mode switch button **NOTE** Standard Mode: All ports are in the same VLAN, and the flow control function is enabled. Port Isolation: All downlink ports are isolated from each other and cannot communicate with each other. Downlink ports can communicate only with uplink ports. (The last two downlink electrical ports are not isolated.) Uplink ports are not isolated or aggregated. Uplink Aggregation: Two uplink optical ports are aggregated into a trunk interface. Eth-Trunk supports load balancing only based on source physical ports. Flow Control Disabling: All ports are in the same VLAN and flow control is disabled.
7	Ground screw	8	AC socket **NOTE** Use the power cable delivered with the device.

Ports

Table 4-17 Ports on the S110-16T2S

Port	Connector Type	Description	Available Components
GE electrical port	RJ45	A GE electrical port sends and receives service data at 10/100/1000 Mbit/s.	**Ethernet cable**
GE optical port	SFP	A GE optical port can send and receive data at 100/1000 Mbit/s.	• **FE SFP/eSFP optical modules (only optical modules with transmission distances less than or equal to 15 km are supported)** • **GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported)**

Indicators and Buttons

Table 4-18 Description of indicators on the device

Indicator	Color	Status	Description
PWR indicator	-	Off	The device is powered off.
	Green	Steady on	The power supply is normal.
Port indicator	-	Off	The port is not connected or has been shut down.

Indicator	Color	Status	Description
	Green	Steady on	A link has been established on the port. **NOTE** During device startup, all port indicators are steady green for about 2 seconds and then off, indicating that service initialization is complete.
	Green	Blinking	The port is sending or receiving data.

Power Supply System

The device is powered by the power cable delivered with the device.

Heat Dissipation System

The device has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-19 Technical specifications of the S110-16T2S

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 320.0 mm x 210.0 mm (1.72 in. x 12.6 in. x 8.27 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 320.0 mm x 217.0 mm (1.72 in. x 12.6 in. x 8.54 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 460.0 mm x 280.0 mm (3.54 in. x 18.11 in. x 11.02 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	1.74 kg (3.84 lb)
Weight with packaging [kg(lb)]	2.30 kg (5.07 lb)
Typical power consumption [W]	11.0 W
Typical heat dissipation [BTU/hour]	37.5 BTU/hour
Maximum power consumption [W]	12 W
Maximum heat dissipation [BTU/hour]	40.9 BTU/hour

Item	Specification
Static power consumption [W]	3 W
MTBF [years]	78.75 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans), < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans), < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Uplink ports	2 x GE SFP ports
Downlink ports	16 x 10/100/1000BASE-T ports
Working mode	• Standard mode • Port isolation • Uplink aggregation • Flow control disabling
MAC address entry	8K
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)

Item	Specification
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100–240 V AC; 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC; 45 Hz to 65 Hz
Maximum input current [A]	1 A
Memory	-
Flash memory	-
Console port	Not supported
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±6 kV
Power supply surge protection [kV]	±2 kV in differential mode, ±4 kV in common mode
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.5.5 S110-16LP2SR

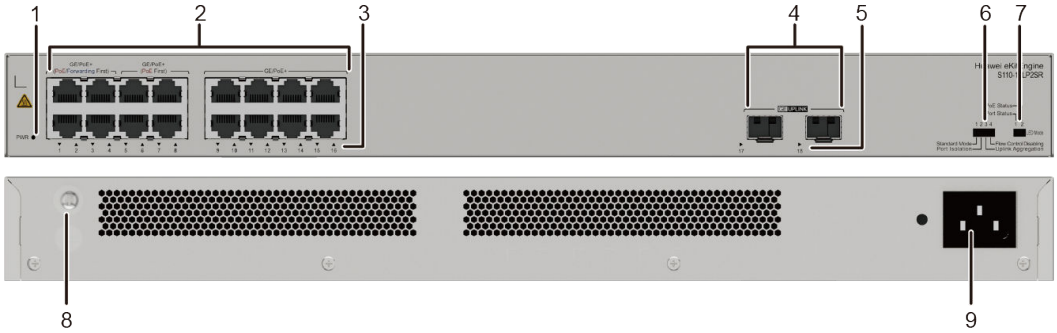
Overview

Table 4-20 Basic information about the S110-16LP2SR

Item	Details
Description	S110-16LP2SR (16*10/100/1000BASE-T ports, 2*GE SFP ports, PoE+, AC power)
Part Number	98012197
Model	S110-16LP2SR

Components

Figure 4-6 S110-16LP2SR appearance



NOTE

To offer better experience, this model has had changes to its functions and appearance. On the new model, some ports support the Forwarding First (with the Forwarding First silkscreen on the front panel) and PoE First (with the PoE First silkscreen on the front panel) functions. The old model (without these silkscreens) does not support the two functions.

1	PWR indicator	2	Sixteen GE PoE+ electrical ports **NOTE** Only the new model with the Forwarding First and PoE First silkscreens on the front panel supports the following functions: Forwarding First: This function is available on ports 1 to 4. With this function, traffic on ports 1 to 4 is preferentially forwarded when traffic congestion occurs on uplink ports. PoE First: This function is available on ports 1 to 8. With this function, terminals connected to other ports will not preempt the power of ports 1 to 8 when the device cannot supply full PoE power to connected terminals; additionally, the power of these ports will be preferentially restored after the device restarts.
3	Electrical port indicator	4	Two GE optical ports
5	Optical port indicator	6	Port mode switch button **NOTE** Standard Mode: All ports are in the same VLAN, and the flow control function is enabled. Port Isolation: All downlink ports are isolated from each other and cannot communicate with each other. Downlink ports can communicate only with uplink ports. (The last two downlink electrical ports are not isolated.) Uplink ports are not isolated or aggregated. Uplink Aggregation: Two uplink optical ports are aggregated into a trunk interface. Eth-Trunk supports load balancing only based on source physical ports. Flow Control Disabling: All ports are in the same VLAN and flow control is disabled.
7	Port indicator status switch button **NOTE** Port status: The port indicator indicates the data transmission status of the port. PoE status: The port indicator indicates the PoE status of the port.	8	Ground screw

9	AC socket **NOTE** Use the power cable delivered with the device.	-	-

Ports

Table 4-21 Ports on the S110-16LP2SR

Port	Connector Type	Description	Available Components
GE PoE+ electrical port	RJ45	A GE PoE+ electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	**Ethernet cable**
GE optical port	SFP	A GE optical port can send and receive data at 100/1000 Mbit/s.	• **FE SFP/eSFP optical modules (only optical modules with transmission distances less than or equal to 15 km are supported)** • **GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported)**

Indicators and Buttons

Table 4-22 Description of indicators on the device

Indicator	Color	Status	Description
PWR indicator	-	Off	The device is powered off.
	Green	Steady on	The power supply is normal.
Port indicator (Port status)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port. **NOTE** During device startup, all port indicators are steady green for about 2 seconds and then off, indicating that service initialization is complete.
	Green	Blinking	The port is sending or receiving data.
Port indicator (PoE status)	-	Off	The port is not supplying PoE power.
	Green	Steady on	The port is supplying power to the connected PD.
	Green	Blinking	The PoE power of the device is insufficient, and the port cannot provide power to the PD.

Power Supply System

The device uses the power adapter delivered with the device to supply power to the device and the connected PD. The power adapter can provide 124 W PoE power, which ensures full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at.

Heat Dissipation System

The device has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-23 Technical specifications of the S110-16LP2SR

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 260.0 mm (1.72 in. x 17.40 in. x 10.24 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 267.0 mm (1.72 in. x 17.40 in. x 10.51 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 555.0 mm x 400.0 mm (3.54 in. x 21.85 in. x 15.75 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	3.0 kg (6.61 lb)
Weight with packaging [kg(lb)]	3.7 kg (8.16 lb)
Typical power consumption [W]	22.0 W
Typical heat dissipation [BTU/hour]	75.07 BTU/hour
Maximum power consumption [W]	Without PoE: 22.0 W Full PoE load: 160.0 W (PoE: 124 W)
Maximum heat dissipation [BTU/hour]	Without PoE: 75.07 Full PoE load: 545.94
Static power consumption [W]	12.0 W
MTBF [years]	57.77 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans), < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans), < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0

Item	Specification
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Uplink ports	2 x GE SFP ports
Downlink ports	16 x 10/100/1000BASE-T ports (124 W PoE+)
Working mode	• Standard mode • Port isolation • Uplink aggregation • Flow control disabling
MAC address entry	8K
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100–240 V AC; 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 300 V AC; 47 Hz to 63 Hz
Maximum input current [A]	3 A
Memory	-
Flash memory	-
Console port	Not supported
Eth Management port	Not supported

Item	Specification
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±4 kV
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.5.6 S110-24T2SR

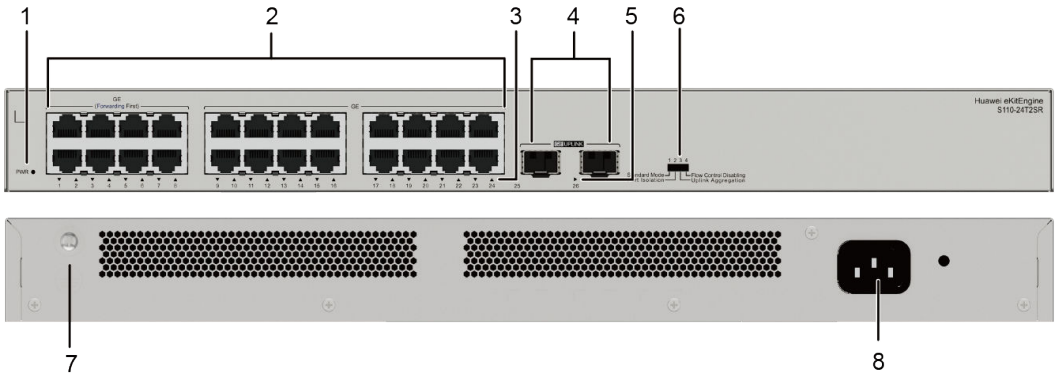
Overview

Table 4-24 Basic information about the S110-24T2SR

Item	Details
Description	S110-24T2SR (24*10/100/1000BASE-T ports, 2*GE SFP ports, AC power)
Part Number	98012196
Model	S110-24T2SR

Components

Figure 4-7 S110-24T2SR appearance



1	PWR indicator	2	Twenty-four GE electrical ports **NOTE** Only the new model with the Forwarding First silkscreen on the front panel supports the Forwarding First function. This function is available on ports 1 to 8. With this function, traffic on ports 1 to 8 is preferentially forwarded when traffic congestion occurs on uplink ports.
3	Electrical port indicator	4	Two GE optical ports
5	Optical port indicator	6	Port mode switch button **NOTE** Standard Mode: All ports are in the same VLAN, and the flow control function is enabled. Port Isolation: All downlink ports are isolated from each other and cannot communicate with each other. Downlink ports can communicate only with uplink ports. (The last two downlink electrical ports are not isolated.) Uplink ports are not isolated or aggregated. Uplink Aggregation: Two uplink optical ports are aggregated into a trunk interface. Eth-Trunk supports load balancing only based on source physical ports. Flow Control Disabling: All ports are in the same VLAN and flow control is disabled.

7	Ground screw	8	AC socket **NOTE** Use the power cable delivered with the device.

Ports

Table 4-25 Ports on the S110-24T2SR

Port	Connector Type	Description	Available Components
GE electrical port	RJ45	A GE electrical port sends and receives service data at 10/100/1000 Mbit/s.	**Ethernet cable**
GE optical port	SFP	A GE optical port can send and receive data at 100/1000 Mbit/s.	• **FE SFP/eSFP optical modules (only optical modules with transmission distances less than or equal to 15 km are supported)** • **GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported)**

Indicators and Buttons

Table 4-26 Description of indicators on the device

Indicator	Color	Status	Description
PWR indicator	-	Off	The device is powered off.

Indicator	Color	Status	Description
	Green	Steady on	The power supply is normal.
Port indicator	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port. **NOTE** During device startup, all port indicators are steady green for about 2 seconds and then off, indicating that service initialization is complete.
	Green	Blinking	The port is sending or receiving data.

Power Supply System

The device is powered by the power cable delivered with the device.

Heat Dissipation System

The device has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-27 Technical specifications of the S110-24T2SR

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 160.0 mm (1.72 in. x 17.40 in. x 6.30 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 167.0 mm (1.72 in. x 17.40 in. x 6.57 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 260.0 mm (3.54 in. x 21.65 in. x 10.24 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	1.8 kg (3.97 lb)
Weight with packaging [kg(lb)]	2.3 kg (5.07 lb)

Item	Specification
Typical power consumption [W]	16 W
Typical heat dissipation [BTU/hour]	54.6 BTU/hour
Maximum power consumption [W]	17 W
Maximum heat dissipation [BTU/hour]	58 BTU/hour
Static power consumption [W]	5 W
MTBF [years]	76.10 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans), < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans), < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Uplink ports	2 x GE SFP ports
Downlink ports	24 x 10/100/1000BASE-T ports
Working mode	• Standard mode • Port isolation • Uplink aggregation • Flow control disabling
MAC address entry	8K
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100–240 V AC; 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC; 45 Hz to 65 Hz
Maximum input current [A]	0.8 A
Memory	-
Flash memory	-
Console port	Not supported
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±1 kV
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.5.7 S110-24LP2SR

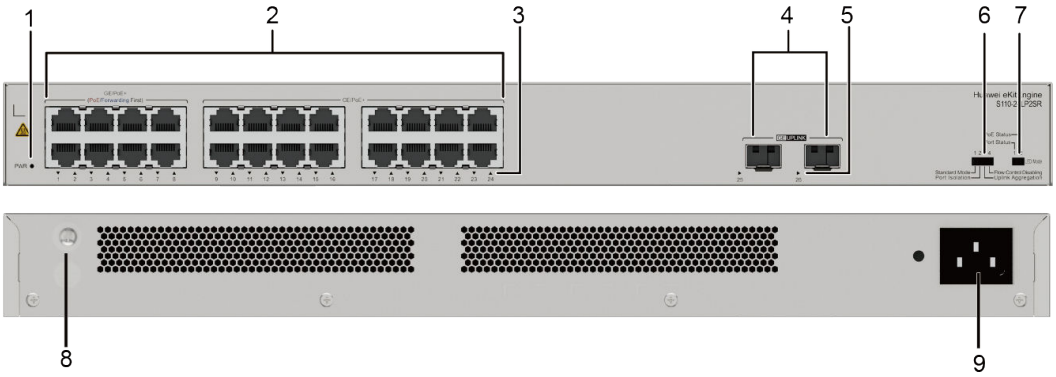
Overview

Table 4-28 Basic information about the S110-24LP2SR

Item	Details
Description	S110-24LP2SR (24*10/100/1000BASE-T ports, 2*GE SFP ports, PoE+, AC power)
Part Number	98012198
Model	S110-24LP2SR

Components

Figure 4-8 S110-24LP2SR appearance



1	PWR indicator	2	Twenty-four GE PoE+ electrical ports **NOTE** Only the new model with the Forwarding First and PoE First silkscreens on the front panel supports the following functions: Forwarding First: This function is available on ports 1 to 8. With this function, traffic on ports 1 to 8 is preferentially forwarded when traffic congestion occurs on uplink ports. PoE First: This function is available on ports 1 to 8. With this function, terminals connected to other ports will not preempt the power of ports 1 to 8 when the device cannot supply full PoE power to connected terminals; additionally, the power of these ports will be preferentially restored after the device restarts.
3	Electrical port indicator	4	Two GE optical ports
5	Optical port indicator	6	Port mode switch button **NOTE** Standard Mode: All ports are in the same VLAN, and the flow control function is enabled. Port Isolation: All downlink ports are isolated from each other and cannot communicate with each other. Downlink ports can communicate only with uplink ports. (The last two downlink electrical ports are not isolated.) Uplink ports are not isolated or aggregated. Uplink Aggregation: Two uplink optical ports are aggregated into a trunk interface. Eth-Trunk supports load balancing only based on source physical ports. Flow Control Disabling: All ports are in the same VLAN and flow control is disabled.
7	Port indicator status switch button **NOTE** Port status: The port indicator indicates the data transmission status of the port. PoE status: The port indicator indicates the PoE status of the port.	8	Ground screw

9	AC socket **NOTE** Use the power cable delivered with the device.	-	-

Ports

Table 4-29 Ports on the S110-24LP2SR

Port	Connector Type	Description	Available Components
GE PoE+ electrical port	RJ45	A GE PoE+ electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	**Ethernet cable**
GE optical port	SFP	A GE optical port can send and receive data at 100/1000 Mbit/s.	• **FE SFP/eSFP optical modules (only optical modules with transmission distances less than or equal to 15 km are supported)** • **GE eSFP optical modules (only optical modules with transmission distances less than or equal to 10 km are supported)**

Indicators and Buttons

Table 4-30 Description of indicators on the device

Indicator	Color	Status	Description
PWR indicator	-	Off	The device is powered off.
	Green	Steady on	The power supply is normal.
Port indicator (Port status)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port. **NOTE** During device startup, all port indicators are steady green for about 2 seconds and then off, indicating that service initialization is complete.
	Green	Blinking	The port is sending or receiving data.
Port indicator (PoE status)	-	Off	The port is not supplying PoE power.
	Green	Steady on	The port is supplying power to the connected PD.
	Green	Blinking	The PoE power of the device is insufficient, and the port cannot provide power to the PD.

Power Supply System

The device uses the power adapter delivered with the device to supply power to the device and the connected PD. The power adapter can provide 124 W PoE power, which ensures full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at.

Heat Dissipation System

The device has no fans and uses natural heat dissipation.

Technical Specifications

Table 4-31 Technical specifications of the S110-24LP2SR

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 260.0 mm (1.72 in. x 17.40 in. x 10.24 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 267.0 mm (1.72 in. x 17.40 in. x 10.51 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 555.0 mm x 400.0 mm (3.54 in. x 21.85 in. x 15.75 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	3.2 kg (7.05 lb)
Weight with packaging [kg(lb)]	3.7 kg (8.16 lb)
Typical power consumption [W]	24 W
Typical heat dissipation [BTU/hour]	81.89 BTU/hour
Maximum power consumption [W]	Without PoE: 24 W Full PoE load: 165 W (PoE: 124 W)
Maximum heat dissipation [BTU/hour]	Without PoE: 81.89 Full PoE load: 563
Static power consumption [W]	13 W
MTBF [years]	42.92 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	Noise-free (no fans), < 30
Noise at normal temperature (acoustic pressure) [dB(A)]	Noise-free (no fans), < 20
Number of card slots	0
Number of power slots	0
Number of fans modules	0

Item	Specification
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Uplink ports	2 x GE SFP ports
Downlink ports	24 x 10/100/1000BASE-T ports (124 W PoE+)
Working mode	• Standard mode • Port isolation • Uplink aggregation • Flow control disabling
MAC address entry	8K
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100–240 V AC; 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 300 V AC; 47 Hz to 63 Hz
Maximum input current [A]	3 A
Memory	-
Flash memory	-
Console port	Not supported
Eth Management port	Not supported

Item	Specification
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±4 kV
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	None
Heat dissipation mode	Natural heat dissipation
Airflow direction	-
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.6 S220

4.6.1 S220-8T4S

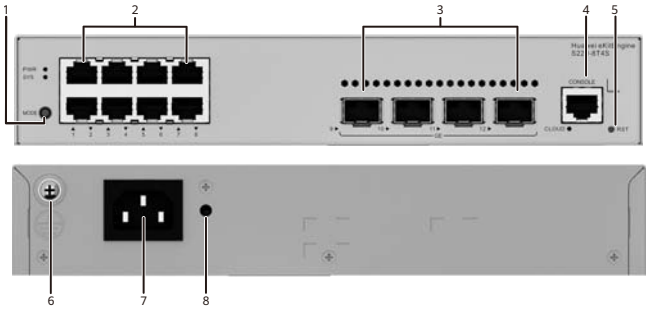
Overview

Table 4-32 Basic information about the S220-8T4S

Item	Details
Description	S220-8T4S(8*10/100/1000BASE-T ports, 4*GE SFP ports, built-in AC power)
Part Number	98012551
Model	S220-8T4S
First supported version	V600R023C10SPC600

Components

Figure 4-9 S220-8T4S appearance



1	One MODE button **NOTE** This button is reserved and is not required currently.	2	Eight 10/100/1000BASE-T ports
3	Four 1000BASE-X ports	4	One console port
5	One RST button **NOTICE** To restore the factory settings and reset the device, hold down the button for at least 6 seconds. To reset the device, press the button. Resetting the device will cause service interruption. Exercise caution when you press the button.	6	Ground screw **NOTE** It is used with a **ground cable**.
7	AC socket **NOTE** It is used with an **AC power cable**.	8	Jack for AC power cable locking strap **NOTE** The AC power cable locking strap is not delivered with the switch.

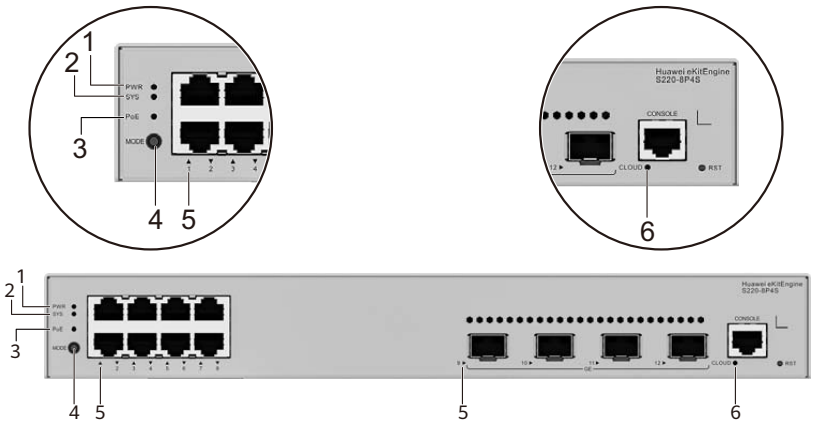
Ports

Table 4-33 Ports on the S220-8T4S

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	**Ethernet cable**
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 1000 Mbit/s.	• **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module**
Console port	RJ45	The console port is connected to a console for on-site configuration.	**Console cable**

Indicators and Buttons

Figure 4-10 Indicators on the Switch



NOTE

The S220-8P4S model is used as an example. Non-PoE models do not have PoE indicator and PoE mode.

Table 4-34 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The power supply is normal.
			Yellow	Steady on	The power supply is abnormal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.

No.	Indicator	Name	Color	Status	Description
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.
4	MODE	Mode switch button	-	-	• When you press this button once, the service port indicators change to the PoE mode and show the PoE status of each service port. • When you press this button a second time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the PoE indicator is off.
5	-	Service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see **Table 4-35**. **NOTE** If a power failure occurs on a device's PCB board, indicators of the last four GE or 10GE optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.
6	CLOUD	Cloud indicator	-		This indicator is reserved.

Table 4-35 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

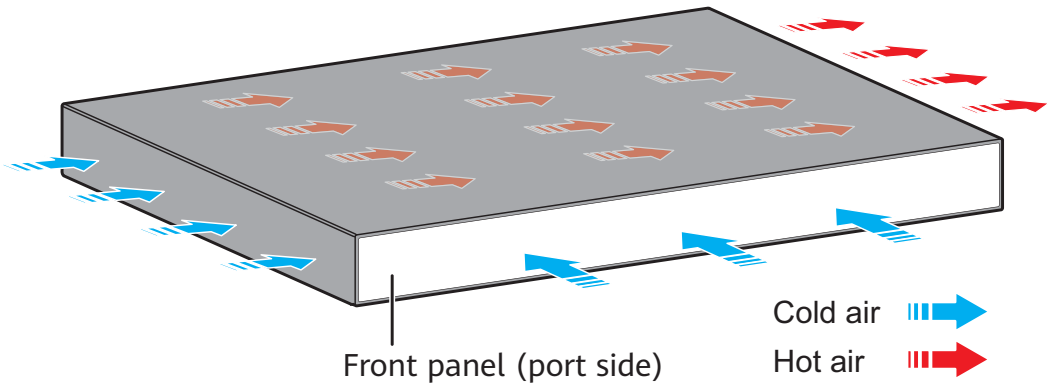
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-36 Technical specifications of the S220-8T4S

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 250.0 mm x 180.0 mm (1.72 in. x 9.84 in. x 7.09 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 250.0 mm x 187.0 mm (1.72 in. x 9.84 in. x 7.36 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 370.0 mm x 380.0 mm (3.54 in. x 14.57 in. x 14.96 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	1.41 kg (3.11 lb)
Weight with packaging [kg(lb)]	2.22 kg (4.89 lb)
Typical power consumption [W]	15.95 W
Typical heat dissipation [BTU/hour]	54.42 BTU/hour
Maximum power consumption [W]	21.52 W
Maximum heat dissipation [BTU/hour]	73.43 BTU/hour
Static power consumption [W]	10.52 W
MTBF [years]	75.32 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	44.5 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	32.5 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1

Item	Specification
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100–240 V AC; 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC; 45 Hz to 65 Hz
Maximum input current [A]	0.8 A
Memory	2 GB
Flash memory	Physical space: 1 GB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV

Item	Specification
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.6.2 S220-8P4S

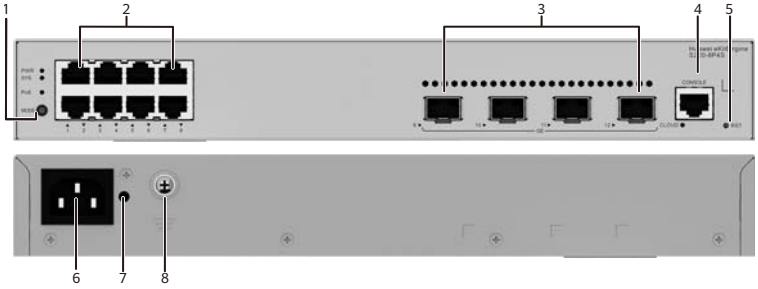
Overview

Table 4-37 Basic information about the S220-8P4S

Item	Details
Description	S220-8P4S(8*10/100/1000BASE-T ports(125W PoE+),4*GE SFP ports, built-in AC power)
Part Number	98012552
Model	S220-8P4S
First supported version	V600R023C10SPC600

Components

Figure 4-11 S220-8P4S appearance



1	One MODE button	2	Eight 10/100/1000BASE-T PoE+ ports
3	Four 1000BASE-X ports	4	One console port
5	One RST button **NOTICE** To restore the factory settings and reset the device, hold down the button for at least 6 seconds. To reset the device, press the button. Resetting the device will cause service interruption. Exercise caution when you press the button.	6	AC socket **NOTE** It is used with an **AC power cable**.
7	Jack for AC power cable locking strap **NOTE** The AC power cable locking strap is not delivered with the switch.	8	Ground screw **NOTE** It is used with a **ground cable**.

Ports

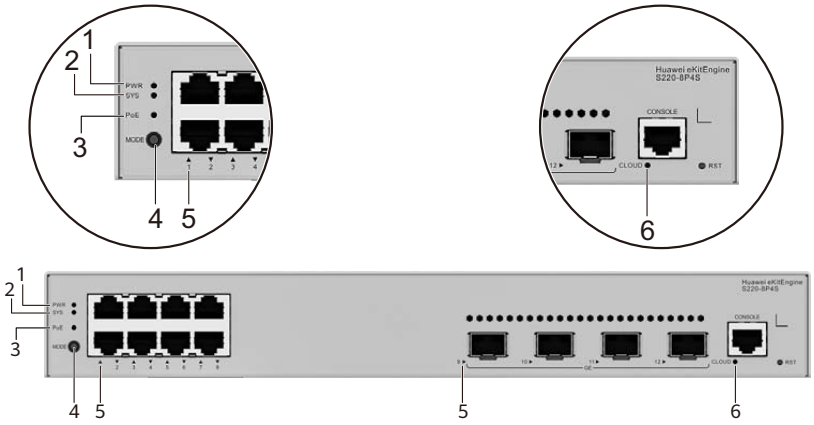
Table 4-38 Ports on the S220-8P4S

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	**Ethernet cable**
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 1000 Mbit/s.	• **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module**

Port	Connector Type	Description	Available Components
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

Figure 4-12 Indicators on the Switch



NOTE

The S220-8P4S model is used as an example. Non-PoE models do not have PoE indicator and PoE mode.

Table 4-39 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The power supply is normal.
			Yellow	Steady on	The power supply is abnormal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.
4	MODE	Mode switch button	-	-	• When you press this button once, the service port indicators change to the PoE mode and show the PoE status of each service port. • When you press this button a second time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the PoE indicator is off.
5	-	Service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see **Table 4-40**. **NOTE** If a power failure occurs on a device's PCB board, indicators of the last four GE or 10GE optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.

No.	Indicator	Name	Color	Status	Description
6	CLOUD	Cloud indicator	-		This indicator is reserved.

Table 4-40 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

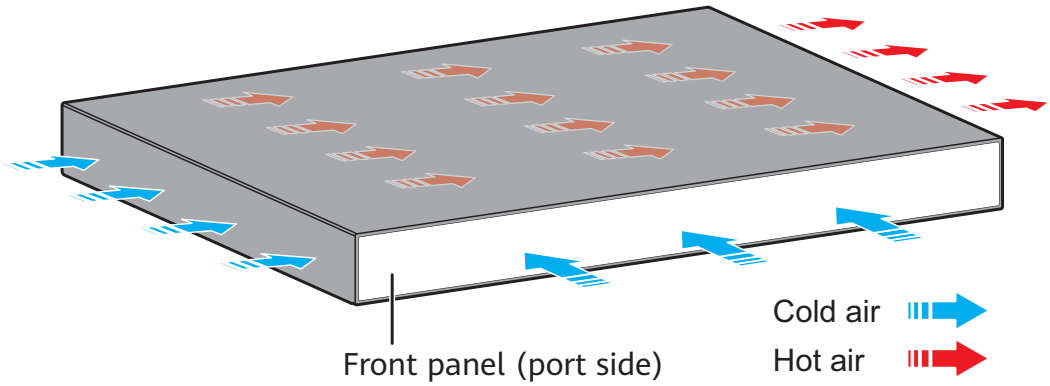
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 125 W PoE power, which ensures full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-41 Technical specifications of the S220-8P4S

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 320.0 mm x 210.0 mm (1.72 in. x 12.6 in. x 8.27 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 320.0 mm x 217.0 mm (1.72 in. x 12.6 in. x 8.54 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 465.0 mm x 380.0 mm (3.54 in. x 18.31 in. x 14.96 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	2.5 kg (5.51 lb)
Weight with packaging [kg(lb)]	3.05 kg (6.72 lb)
Typical power consumption [W]	19.99 W
Typical heat dissipation [BTU/hour]	68.21 BTU/hour
Maximum power consumption [W]	• Without PoE: 25.09 W • Full PoE load: 166.65 W (PoE: 125 W)
Maximum heat dissipation [BTU/hour]	• Without PoE: 85.61 • Full PoE load: 568.63

Item	Specification
Static power consumption [W]	17.19 W
MTBF [years]	69.71 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	47 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	35 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100–240 V AC; 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 300 V AC; 47 Hz to 63 Hz

Item	Specification
Maximum input current [A]	3 A
Memory	2 GB
Flash memory	Physical space: 1 GB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.6.3 S220-24T4X

Overview

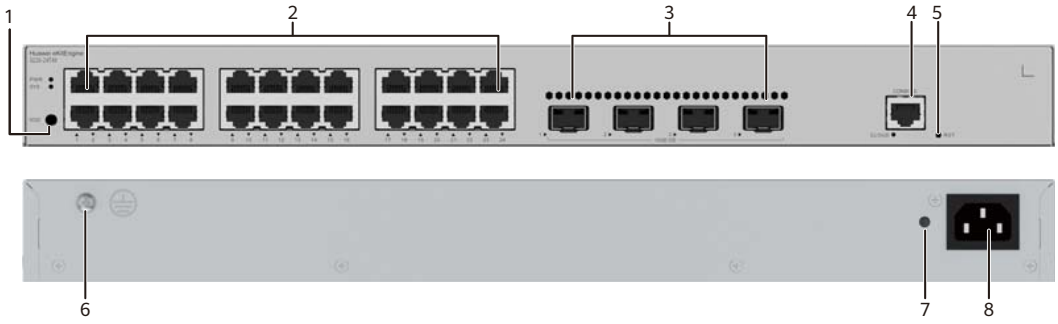
Table 4-42 Basic information about the S220-24T4X

Item	Details
Description	S220-24T4X (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, built-in AC power)
Part Number	98012375

Item	Details
Model	S220-24T4X
First supported version	V600R023C00

Components

Figure 4-13 S220-24T4X appearance



1	One MODE button **NOTE** This button is reserved and is not required currently.	2	Twenty-four 10/100/1000BASE-T ports
3	Four 10GE SFP+ ports	4	One console port
5	One RST button **NOTICE** To restore the factory settings and reset the device, hold down the button for at least 6 seconds. To reset the device, press the button. Resetting the device will cause service interruption. Exercise caution when you press the button.	6	Ground screw **NOTE** It is used with a **ground cable**.
7	Jack for AC power cable locking strap **NOTE** The AC power cable locking strap is not delivered with the switch.	8	AC socket **NOTE** It is used with an **AC power cable**.

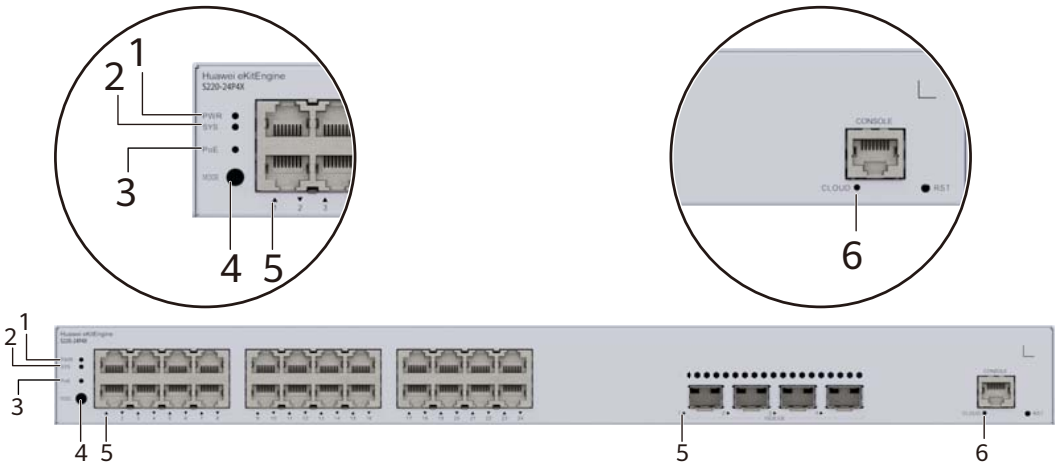
Ports

Table 4-43 Ports on the S220-24T4X

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	**Ethernet cable**
10GE SFP+ port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	• **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module** • **10GE SFP+ optical modules** • **10GE-CWDM SFP+ optical modules** • **10GE-DWDM SFP+ optical modules** • **1 m and 3 m SFP+ high-speed copper cables** • **10 m SFP+ AOC cables**
Console port	RJ45	The console port is connected to a console for on-site configuration.	**Console cable**

Indicators and Buttons

Figure 4-14 Indicators on the Switch



NOTE

The S220-24P4X model is used as an example. Non-PoE models do not have PoE indicator and PoE mode.

Table 4-44 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	PoE	PoE indicator	-	Off	The PoE mode is not selected.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.
4	MODE	Mode switch button	-	-	• When you press this button once, the service port indicators change to the PoE mode and show the PoE status of each service port. • When you press this button a second time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the PoE indicator is off.
5	-	Service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see **Table 4-45**. **NOTE** If a power failure occurs on a device's PCB board, indicators of the last four GE or 10GE optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.
6	CLOUD	Cloud indicator	-		This indicator is reserved.

Table 4-45 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.

Display Mode	Color	Status	Description
	Green	Blinking	The port is sending or receiving data.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

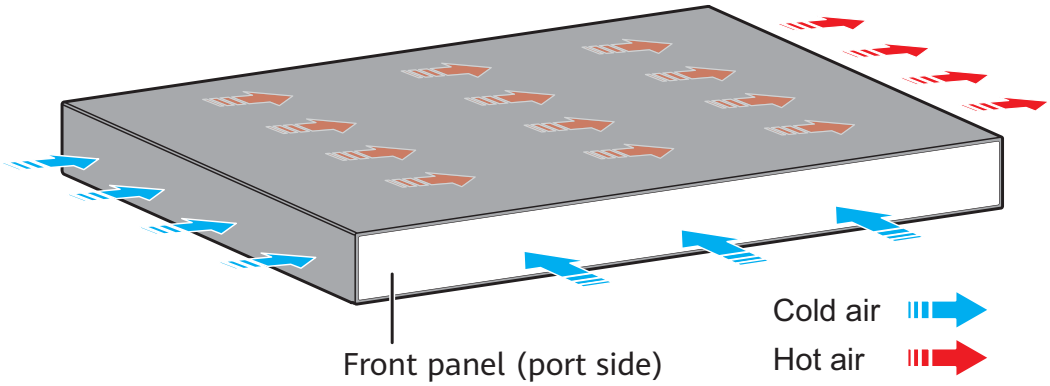
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-46 Technical specifications of the S220-24T4X

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	2.32 kg (5.11 lb)
Weight with packaging [kg(lb)]	3.44 kg (7.58 lb)
Typical power consumption [W]	27.27 W
Typical heat dissipation [BTU/hour]	93.05 BTU/hour
Maximum power consumption [W]	35.04 W
Maximum heat dissipation [BTU/hour]	119.56 BTU/hour
Static power consumption [W]	19.00 W
MTBF [years]	70.75 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	47 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	35 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.

Item	Specification
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Uplink ports	4 x 10GE SFP+ ports
Downlink ports	24 x 10/100/1000BASE-T ports
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100–240 V AC; 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC; 45 Hz to 65 Hz
Maximum input current [A]	0.8 A
Memory	2 GB
Flash memory	Physical space: 1 GB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV

Item	Specification
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.6.4 S220-24P4X

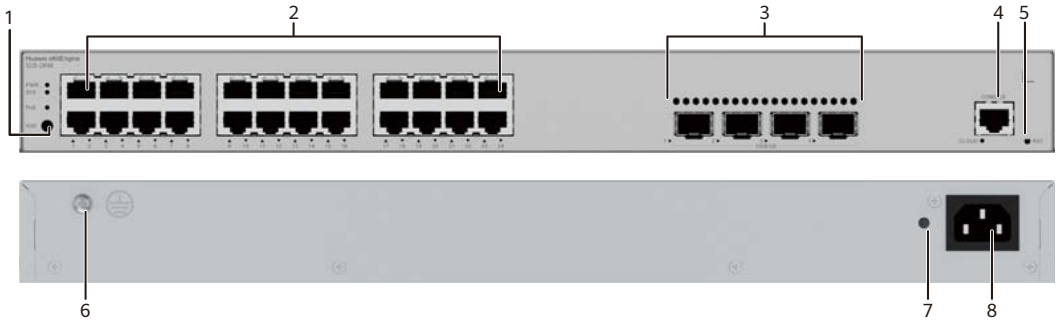
Overview

Table 4-47 Basic information about the S220-24P4X

Item	Details
Description	S220-24P4X (24*10/100/1000BASE-T ports(400W PoE+), 4*10GE SFP+ ports, built-in AC power)
Part Number	98012376
Model	S220-24P4X
First supported version	V600R023C00

Components

Figure 4-15 S220-24P4X appearance



1	One MODE button	2	Twenty-four 10/100/1000BASE-T PoE+ ports
3	Four 10GE SFP+ ports	4	One console port
5	One RST button **NOTICE** To restore the factory settings and reset the device, hold down the button for at least 6 seconds. To reset the device, press the button. Resetting the device will cause service interruption. Exercise caution when you press the button.	6	Ground screw **NOTE** It is used with a **ground cable**.
7	Jack for AC power cable locking strap **NOTE** The AC power cable locking strap is not delivered with the switch.	8	AC socket **NOTE** It is used with an **AC power cable**.

Ports

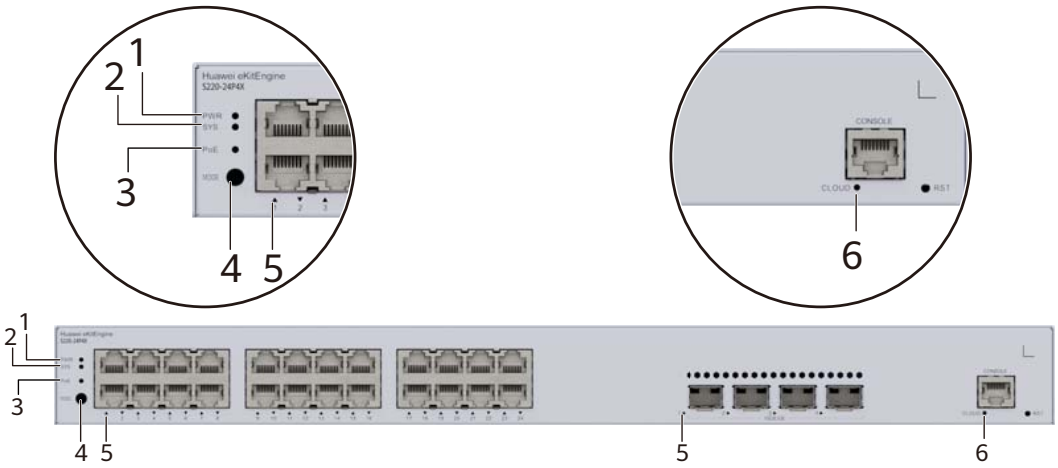
Table 4-48 Ports on the S220-24P4X

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	**Ethernet cable**

Port	Connector Type	Description	Available Components
10GE SFP+ port port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	• **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module** • **10GE SFP+ optical modules** • **10GE-CWDM SFP+ optical modules** • **10GE-DWDM SFP+ optical modules** • **1 m and 3 m SFP+ high-speed copper cables** • **10 m SFP+ AOC cables**
Console port	RJ45	The console port is connected to a console for on-site configuration.	**Console cable**

Indicators and Buttons

Figure 4-16 Indicators on the Switch



NOTE

The S220-24P4X model is used as an example. Non-PoE models do not have PoE indicator and PoE mode.

Table 4-49 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	PoE	PoE indicator	-	Off	The PoE mode is not selected.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.
4	MODE	Mode switch button	-	-	• When you press this button once, the service port indicators change to the PoE mode and show the PoE status of each service port. • When you press this button a second time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the PoE indicator is off.
5	-	Service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see **Table 4-50**. **NOTE** If a power failure occurs on a device's PCB board, indicators of the last four GE or 10GE optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.
6	CLOUD	Cloud indicator	-		This indicator is reserved.

Table 4-50 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.

Display Mode	Color	Status	Description
	Green	Blinking	The port is sending or receiving data.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

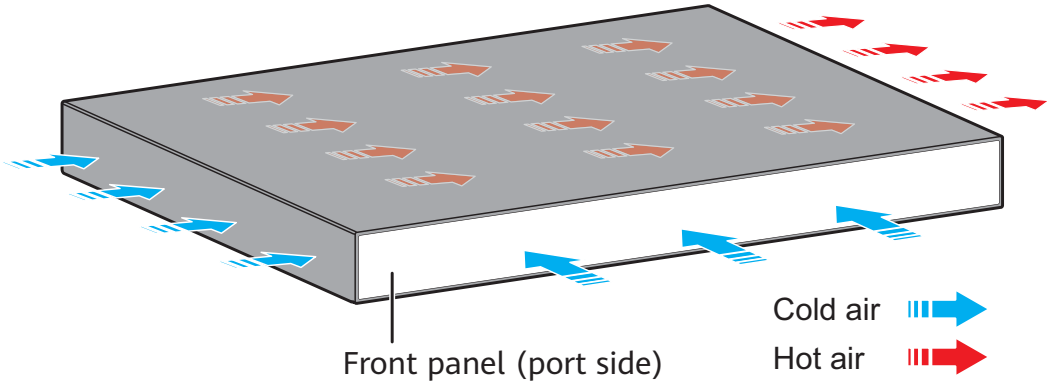
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 400 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 13 ports in compliance with 802.3at.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-51 Technical specifications of the S220-24P4X

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	2.92 kg (6.44 lb)
Weight with packaging [kg(lb)]	3.79 kg (8.36 lb)
Typical power consumption [W]	37.12 W
Typical heat dissipation [BTU/hour]	126.65 BTU/hour
Maximum power consumption [W]	• Without PoE: 44.35 W • Full PoE load: 485.91 W (PoE: 400 W)
Maximum heat dissipation [BTU/hour]	• Without PoE: 151.32 • Full PoE load: 1657.92
Static power consumption [W]	27.07 W
MTBF [years]	60.18 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	49.3 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	37.3 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2

Item	Specification
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Uplink ports	4 x 10GE SFP+ ports
Downlink ports	24 x 10/100/1000BASE-T ports (400 W, PoE+)
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	• AC input: 100 V AC to 240 V AC, 50/60 Hz • High-voltage DC input: 240 V DC
Input voltage range [V]	• AC input: 90 V AC to 290 V AC; 45 Hz to 65 Hz • High-voltage DC input: 190 V DC to 290 V DC
Maximum input current [A]	6 A
Memory	2 GB
Flash memory	Physical space: 1 GB
Console port	RJ45
Eth Management port	Not supported

Item	Specification
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.6.5 S220-48T4S

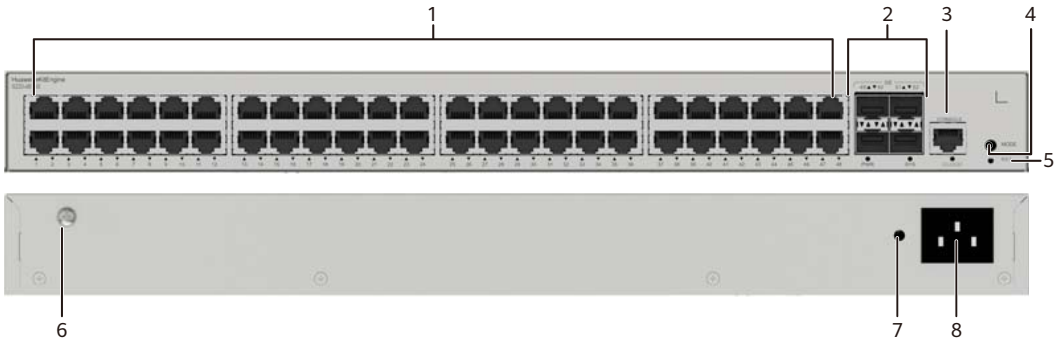
Overview

Table 4-52 Basic information about the S220-48T4S

Item	Details
Description	S220-48T4S (48*10/100/1000BASE-T ports, 4*GE SFP ports, built-in AC power)
Part Number	98012380
Model	S220-48T4S
First supported version	V600R023C00

Components

Figure 4-17 S220-48T4S appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 1000BASE-X ports
3	One console port	4	One MODE button **NOTE** This button is reserved and is not required currently.
5	One RST button **NOTICE** To restore the factory settings and reset the device, hold down the button for at least 6 seconds. To reset the device, press the button. Resetting the device will cause service interruption. Exercise caution when you press the button.	6	Ground screw **NOTE** It is used with a **ground cable**.
7	Jack for AC power cable locking strap **NOTE** The AC power cable locking strap is not delivered with the switch.	8	AC socket **NOTE** It is used with an **AC power cable**.

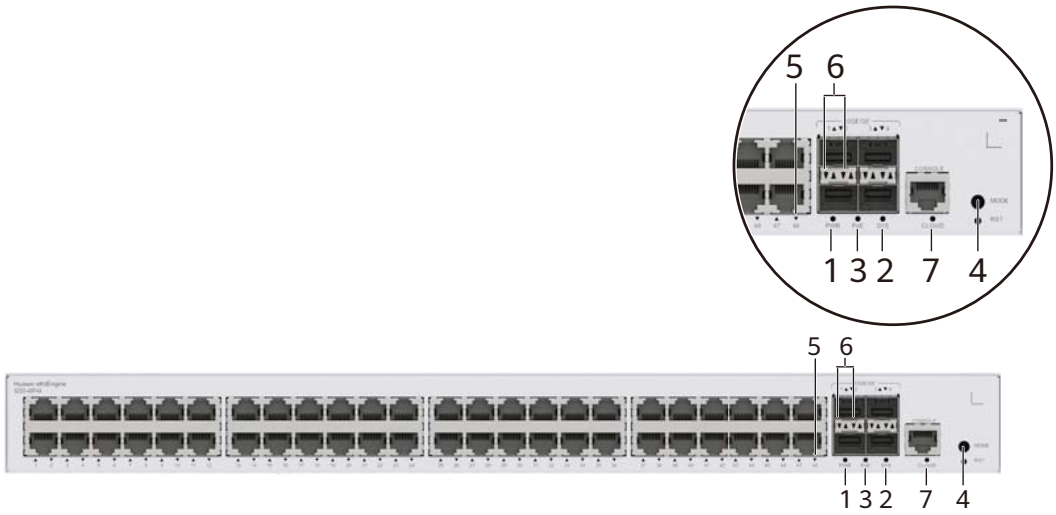
Ports

Table 4-53 Ports on the S220-48T4S

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	**Ethernet cable**
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 1000 Mbit/s.	• **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module**
Console port	RJ45	The console port is connected to a console for on-site configuration.	**Console cable**

Indicators and Buttons

Figure 4-18 Indicators on the Switch



NOTE

The S220-48P4X model is used as an example. Non-PoE models do not have PoE indicator and PoE mode.

Table 4-54 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
3	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.
4	MODE	Mode switch button	-	-	• When you press this button once, the service port indicators change to the PoE mode and show the PoE status of each service port. • When you press this button a second time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the PoE indicator is off.
5	-	Electrical service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see **Table 4-55** and **Table 4-56**. **NOTE** If a power failure occurs on a device's PCB board, indicators of the last four GE or 10GE optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.

No.	Indicator	Name	Color	Status	Description
6	-	Optical service port indicator (two indicators for each port)	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
7	CLOUD	Cloud indicator	-		This indicator is reserved.

Table 4-55 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.

Display Mode	Color	Status	Description
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Table 4-56 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.

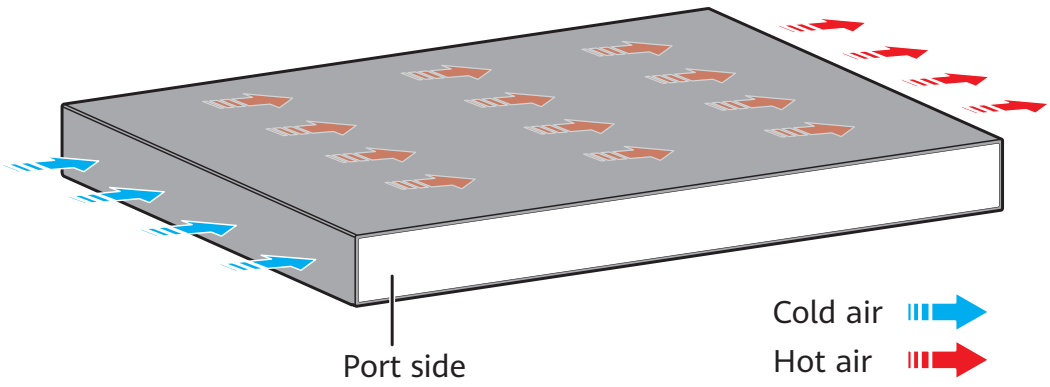
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-57 Technical specifications of the S220-48T4S

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	2.71 kg (5.97 lb)
Weight with packaging [kg(lb)]	3.59 kg (7.91 lb)
Typical power consumption [W]	36.15 W
Typical heat dissipation [BTU/hour]	123.35 BTU/hour
Maximum power consumption [W]	43.3 W
Maximum heat dissipation [BTU/hour]	147.74 BTU/hour
Static power consumption [W]	18.8 W
MTBF [years]	40.61 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	46.6 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	34.6 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1

Item	Specification
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Uplink ports	4 x GE SFP ports
Downlink ports	48 x 10/100/1000BASE-T ports
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F). The operating temperature ranges from –5°C (23°F) to +45°C (113°F) when optical modules with transmission distances greater than or equal to 60 km are used. The device does not support dying gasp when the ambient temperature is higher than 40°C (104°F).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100–240 V AC; 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC; 45 Hz to 65 Hz
Maximum input current [A]	1.6 A
Memory	2 GB
Flash memory	Physical space: 1 GB

Item	Specification
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and air exhaust from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.6.6 S220-48T4X

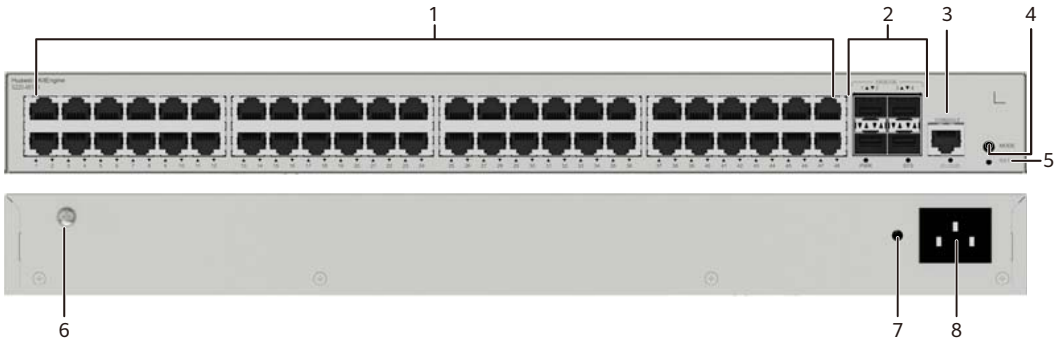
Overview

Table 4-58 Basic information about the S220-48T4X

Item	Details
Description	S220-48T4X (48*10/100/1000BASE-T ports, 4*10GE SFP+ ports, built-in AC power)
Part Number	98012377
Model	S220-48T4X
First supported version	V600R023C00

Components

Figure 4-19 S220-48T4X appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports
3	One console port	4	One MODE button **NOTE** This button is reserved and is not required currently.
5	One RST button **NOTICE** To restore the factory settings and reset the device, hold down the button for at least 6 seconds. To reset the device, press the button. Resetting the device will cause service interruption. Exercise caution when you press the button.	6	Ground screw **NOTE** It is used with a **ground cable**.
7	Jack for AC power cable locking strap **NOTE** The AC power cable locking strap is not delivered with the switch.	8	AC socket **NOTE** It is used with an **AC power cable**.

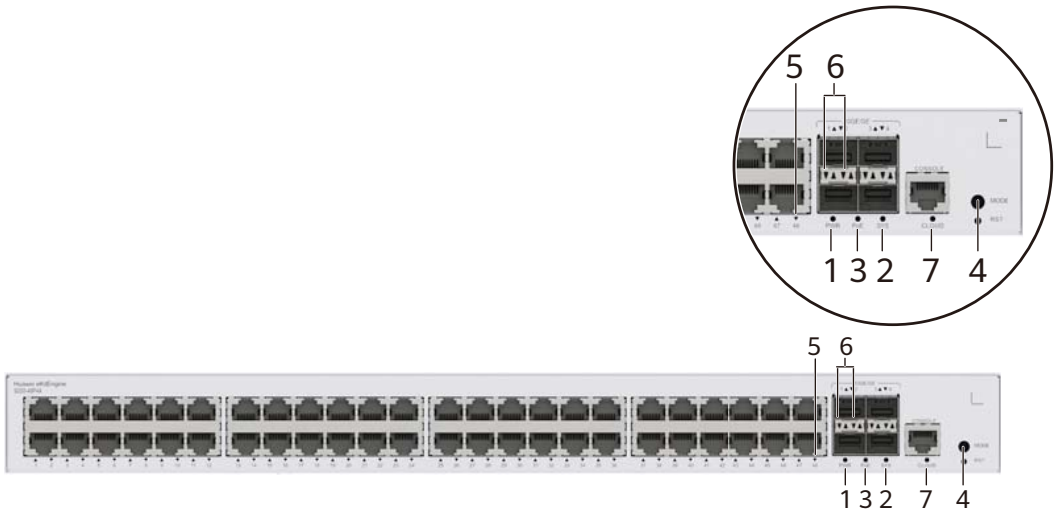
Ports

Table 4-59 Ports on the S220-48T4X

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	**Ethernet cable**
10GE SFP+ port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	• **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module** • **10GE SFP+ optical modules** • **10GE-CWDM SFP+ optical modules** • **10GE-DWDM SFP+ optical modules** • **1 m and 3 m SFP+ high-speed copper cables** • **10 m SFP+ AOC cables**
Console port	RJ45	The console port is connected to a console for on-site configuration.	**Console cable**

Indicators and Buttons

Figure 4-20 Indicators on the Switch



NOTE

The S220-48P4X model is used as an example. Non-PoE models do not have PoE indicator and PoE mode.

Table 4-60 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
3	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.
4	MODE	Mode switch button	-	-	• When you press this button once, the service port indicators change to the PoE mode and show the PoE status of each service port. • When you press this button a second time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the PoE indicator is off.
5	-	Electrical service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see **Table 4-61** and **Table 4-62**. **NOTE** If a power failure occurs on a device's PCB board, indicators of the last four GE or 10GE optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.

No.	Indicator	Name	Color	Status	Description
6	-	Optical service port indicator (two indicators for each port)	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
7	CLOUD	Cloud indicator	-		This indicator is reserved.

Table 4-61 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.

Display Mode	Color	Status	Description
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Table 4-62 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.

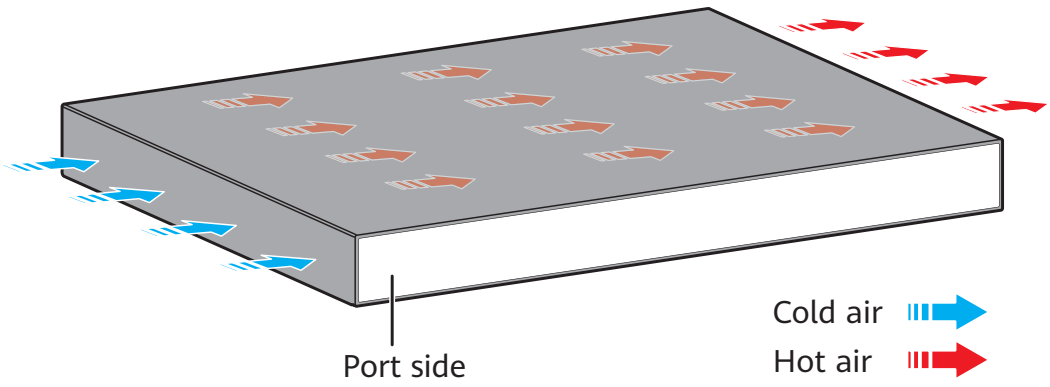
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-63 Technical specifications of the S220-48T4X

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	2.71 kg (5.97 lb)
Weight with packaging [kg(lb)]	3.59 kg (7.91 lb)
Typical power consumption [W]	36.95 W
Typical heat dissipation [BTU/hour]	126.07 BTU/hour
Maximum power consumption [W]	44.3 W
Maximum heat dissipation [BTU/hour]	151.15 BTU/hour
Static power consumption [W]	18.8 W
MTBF [years]	40.61 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	46.6 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	34.6 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1

Item	Specification
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Uplink ports	4 x 10GE SFP+ ports
Downlink ports	48 x 10/100/1000BASE-T ports
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F). The operating temperature ranges from –5°C (23°F) to +45°C (113°F) when optical modules with transmission distances greater than or equal to 60 km are used. The device does not support dying gasp when the ambient temperature is higher than 40°C (104°F).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100–240 V AC; 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC; 45 Hz to 65 Hz
Maximum input current [A]	1.6 A
Memory	2 GB
Flash memory	Physical space: 1 GB

Item	Specification
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and air exhaust from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.6.7 S220-48P4S

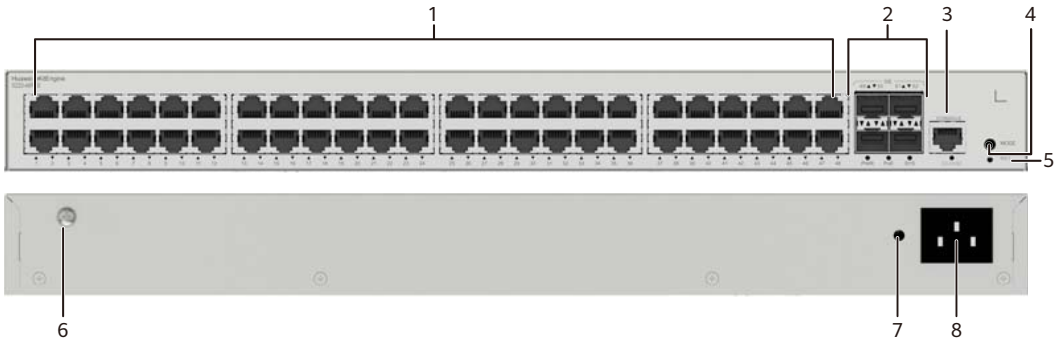
Overview

Table 4-64 Basic information about the S220-48P4S

Item	Details
Description	S220-48P4S (48*10/100/1000BASE-T ports(380W PoE+), 4*GE SFP ports, built-in AC power)
Part Number	98012379
Model	S220-48P4S
First supported version	V600R023C00

Components

Figure 4-21 S220-48P4S appearance



1	Forty-eight 10/100/1000BASE-T PoE + ports	2	Four 1000BASE-X ports
3	One console port	4	One MODE button
5	One RST button **NOTICE** To restore the factory settings and reset the device, hold down the button for at least 6 seconds. To reset the device, press the button. Resetting the device will cause service interruption. Exercise caution when you press the button.	6	Ground screw **NOTE** It is used with a **ground cable**.
7	Jack for AC power cable locking strap **NOTE** The AC power cable locking strap is not delivered with the switch.	8	AC socket **NOTE** It is used with an **AC power cable**.

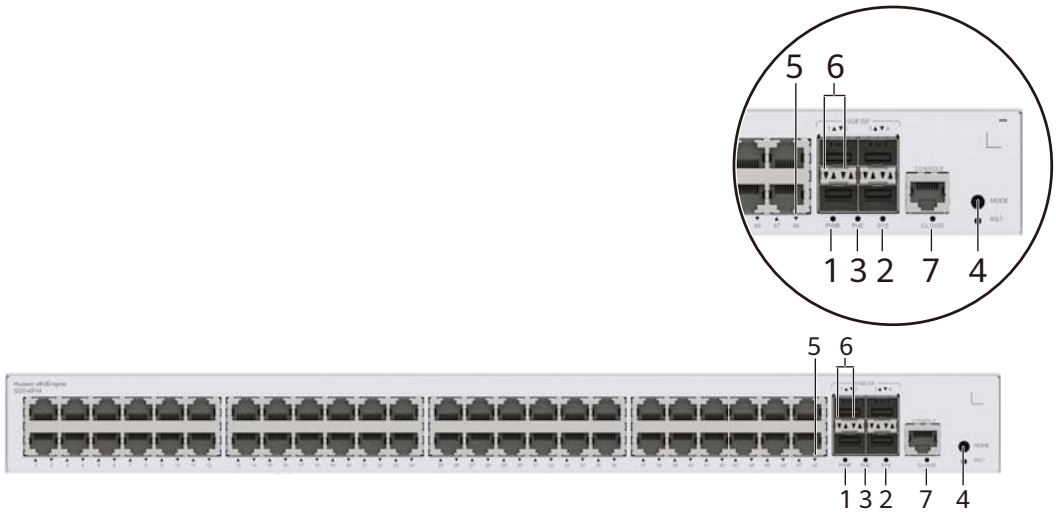
Ports

Table 4-65 Ports on the S220-48P4S

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	**Ethernet cable**
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 1000 Mbit/s.	• **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module**
Console port	RJ45	The console port is connected to a console for on-site configuration.	**Console cable**

Indicators and Buttons

Figure 4-22 Indicators on the Switch



NOTE

The S220-48P4X model is used as an example. Non-PoE models do not have PoE indicator and PoE mode.

Table 4-66 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
3	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.
4	MODE	Mode switch button	-	-	• When you press this button once, the service port indicators change to the PoE mode and show the PoE status of each service port. • When you press this button a second time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the PoE indicator is off.
5	-	Electrical service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see **Table 4-67** and **Table 4-68**. **NOTE** If a power failure occurs on a device's PCB board, indicators of the last four GE or 10GE optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.

No.	Indicator	Name	Color	Status	Description
6	-	Optical service port indicator (two indicators for each port)	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
7	CLOUD	Cloud indicator	-		This indicator is reserved.

Table 4-67 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.

Display Mode	Color	Status	Description
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Table 4-68 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.

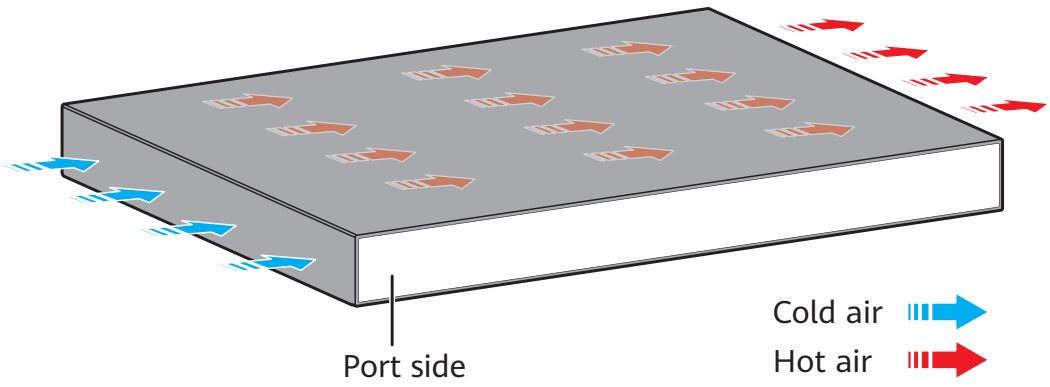
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-69 Technical specifications of the S220-48P4S

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	3.24 kg (7.14 lb)
Weight with packaging [kg(lb)]	4.29 kg (9.46 lb)
Typical power consumption [W]	48.64 W
Typical heat dissipation [BTU/hour]	165.96 BTU/hour
Maximum power consumption [W]	• Without PoE: 63.70 W • Full PoE load: 462.80 W (PoE: 380 W)
Maximum heat dissipation [BTU/hour]	• Without PoE: 217.35 • Full PoE load: 1579.12
Static power consumption [W]	34.04 W
MTBF [years]	48.14 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	49.3 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	37.3 dB(A)

Item	Specification
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Uplink ports	4 x GE SFP ports
Downlink ports	48 x 10/100/1000BASE-T ports (380 W, PoE+)
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F). The operating temperature ranges from –5°C (23°F) to +45°C (113°F) when optical modules with transmission distances greater than or equal to 60 km are used.
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	• AC input: 100 V AC to 240 V AC, 50/60 Hz • High-voltage DC input: 240 V DC

Item	Specification
Input voltage range [V]	• AC input: 90 V AC to 290 V AC; 45 Hz to 65 Hz • High-voltage DC input: 190 V DC to 290 V DC
Maximum input current [A]	6 A
Memory	2 GB
Flash memory	Physical space: 1 GB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and air exhaust from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.6.8 S220-48P4X

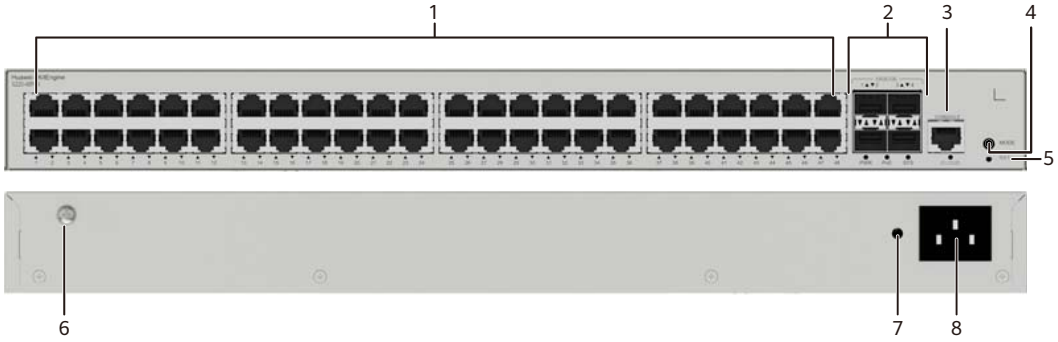
Overview

Table 4-70 Basic information about the S220-48P4X

Item	Details
Description	S220-48P4X (48*10/100/1000BASE-T ports(380W PoE+), 4*10GE SFP+ ports, built-in AC power)
Part Number	98012378
Model	S220-48P4X
First supported version	V600R023C00

Components

Figure 4-23 S220-48P4X appearance



1	Forty-eight 10/100/1000BASE-T PoE + ports	2	Four 10GE SFP+ ports
3	One console port	4	One MODE button
5	One RST button **NOTICE** To restore the factory settings and reset the device, hold down the button for at least 6 seconds. To reset the device, press the button. Resetting the device will cause service interruption. Exercise caution when you press the button.	6	Ground screw **NOTE** It is used with a **ground cable**.

7	Jack for AC power cable locking strap **NOTE** The AC power cable locking strap is not delivered with the switch.	8	AC socket **NOTE** It is used with an **AC power cable**.

Ports

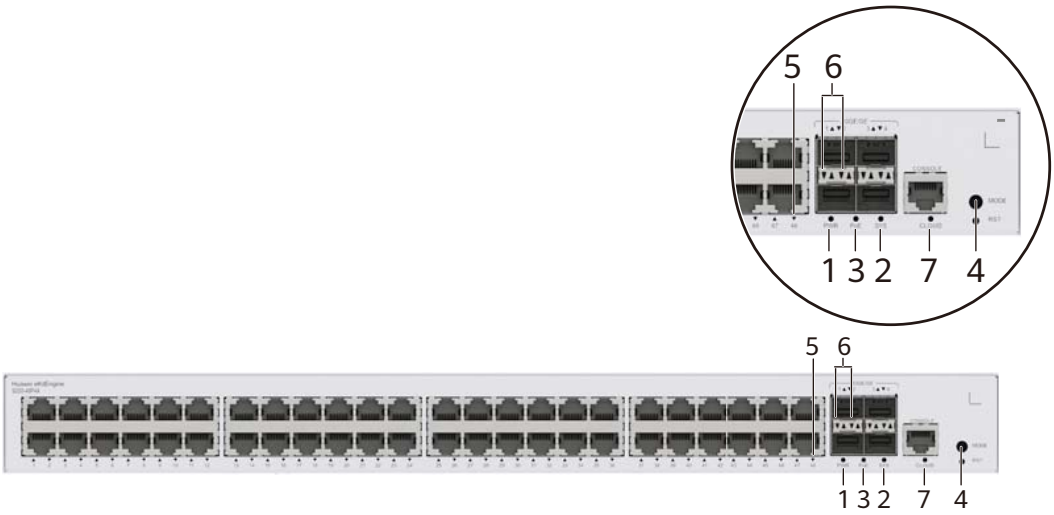
Table 4-71 Ports on the S220-48P4X

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	**Ethernet cable**
10GE SFP+ port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	• **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module** • **10GE SFP+ optical modules** • **10GE-CWDM SFP+ optical modules** • **10GE-DWDM SFP+ optical modules** • **1 m and 3 m SFP+ high-speed copper cables** • **10 m SFP+ AOC cables**

Port	Connector Type	Description	Available Components
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

Figure 4-24 Indicators on the Switch



NOTE

The S220-48P4X model is used as an example. Non-PoE models do not have PoE indicator and PoE mode.

Table 4-72 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.
4	MODE	Mode switch button	-	-	• When you press this button once, the service port indicators change to the PoE mode and show the PoE status of each service port. • When you press this button a second time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the PoE indicator is off.
5	-	Electrical service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see **Table 4-73** and **Table 4-74**. **NOTE** If a power failure occurs on a device's PCB board, indicators of the last four GE or 10GE optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.

No.	Indicator	Name	Color	Status	Description
6	-	Optical service port indicator (two indicators for each port)	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
7	CLOUD	Cloud indicator	-		This indicator is reserved.

Table 4-73 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.

Display Mode	Color	Status	Description
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Table 4-74 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.

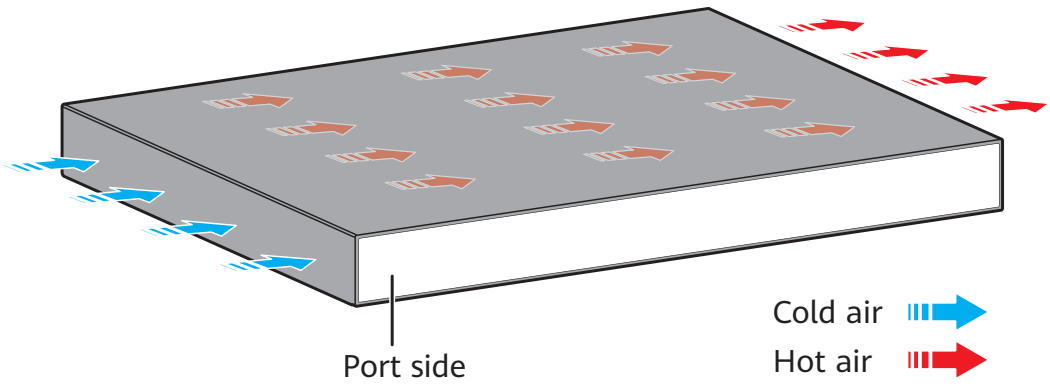
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-75 Technical specifications of the S220-48P4X

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	3.24 kg (7.14 lb)
Weight with packaging [kg(lb)]	4.29 kg (9.46 lb)
Typical power consumption [W]	49.44 W
Typical heat dissipation [BTU/hour]	168.69 BTU/hour
Maximum power consumption [W]	• Without PoE: 64.7 W • Full PoE load: 462.80 W (PoE: 380 W)
Maximum heat dissipation [BTU/hour]	• Without PoE: 220.76 • Full PoE load: 1579.12
Static power consumption [W]	34.04 W
MTBF [years]	48.14 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	49.3 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	37.3 dB(A)

Item	Specification
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Uplink ports	4 x 10GE SFP+ ports
Downlink ports	48 x 10/100/1000BASE-T ports (380 W, PoE+)
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F). The operating temperature ranges from –5°C (23°F) to +45°C (113°F) when optical modules with transmission distances greater than or equal to 60 km are used.
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	• AC input: 100 V AC to 240 V AC, 50/60 Hz • High-voltage DC input: 240 V DC

Item	Specification
Input voltage range [V]	• AC input: 90 V AC to 290 V AC; 45 Hz to 65 Hz • High-voltage DC input: 190 V DC to 290 V DC
Maximum input current [A]	6 A
Memory	2 GB
Flash memory	Physical space: 1 GB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and air exhaust from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.7 S310

4.7.1 S310-24T4S

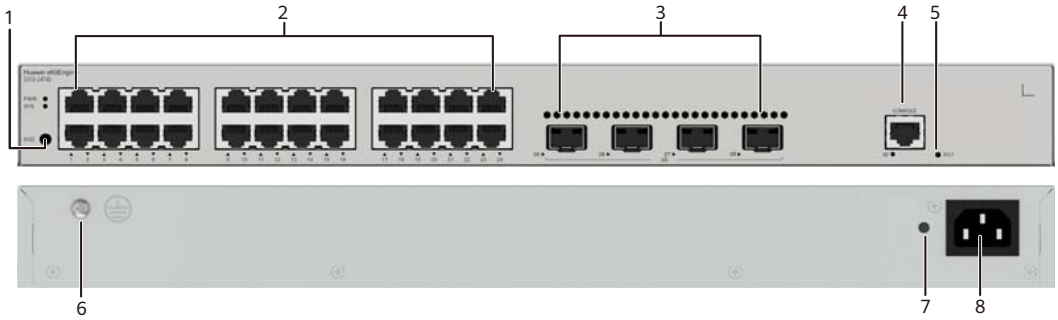
Overview

Table 4-76 Basic information about the S310-24T4S

Item	Details
Description	S310-24T4S (24*10/100/1000BASE-T ports, 4*GE SFP ports, AC power)
Part Number	98012202
Model	S310-24T4S
First supported version	V600R022C10

Components

Figure 4-25 S310-24T4S appearance



NOTE

This model has had changes to its appearance and branding (from CloudEngine to eKitEngine), and devices delivered over different periods may have different appearances but have no differences in functions.

1	One MODE button **NOTE** This button is reserved and is not required currently.	2	Twenty-four 10/100/1000BASE-T ports
3	Four 1000BASE-X ports	4	One console port

5	One RST button **NOTICE** To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	6	Ground screw **NOTE** It is used with a **ground cable**.
7	Jack for AC power cable locking strap **NOTE** The AC power cable locking strap is not delivered with the switch.	8	AC socket **NOTE** It is used with an **AC power cable**.

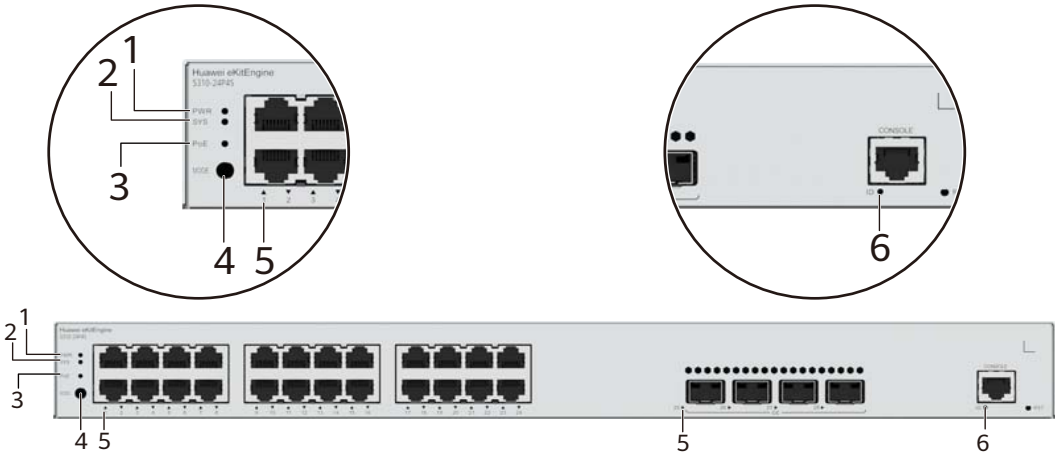
Ports

Table 4-77 Ports on the S310-24T4S

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	**Ethernet cable**
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 1000 Mbit/s.	• **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module**
Console port	RJ45	The console port is connected to a console for on-site configuration.	**Console cable**

Indicators and Buttons

Figure 4-26 Indicators on the Switch



NOTE

The S310-24P4S model is used as an example. Non-PoE models do not have PoE indicator and PoE mode.

Table 4-78 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The power supply is normal.
			Yellow	Steady on	The power supply is abnormal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
3	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.
4	MODE	Mode switch button	-	-	• When you press this button once, the service port indicators change to the PoE mode and show the PoE status of each service port. • When you press this button a second time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the PoE indicator is off.
5	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see **Table 4-79**. **NOTE** If a power failure occurs on a device's PCB board, indicators of the last four optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.		
6	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.

Table 4-79 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.

Display Mode	Color	Status	Description
	Green	Blinking	The port is sending or receiving data.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

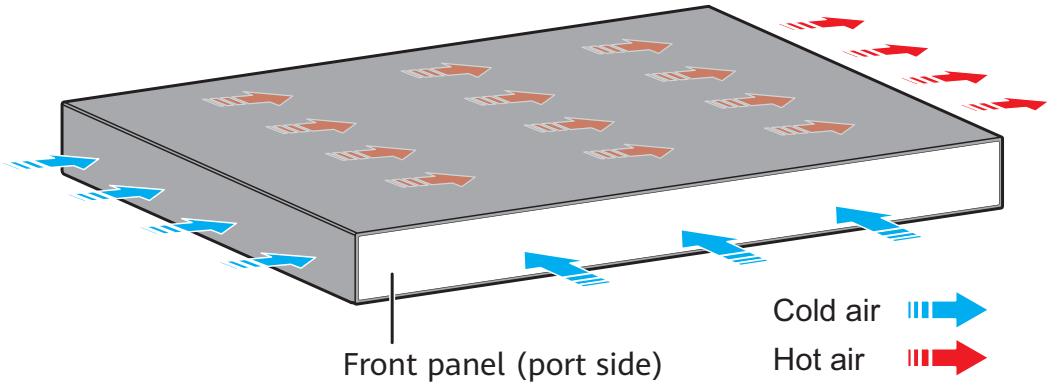
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-80 Technical specifications of the S310-24T4S

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	2.32 kg (5.11 lb)
Weight with packaging [kg(lb)]	3.44 kg (7.58 lb)
Typical power consumption [W]	26.37 W
Typical heat dissipation [BTU/hour]	89.98 BTU/hour
Maximum power consumption [W]	34.04 W
Maximum heat dissipation [BTU/hour]	116.15 BTU/hour
Static power consumption [W]	19.00 W
MTBF [years]	70.75 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	47 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	35 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.

Item	Specification
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Uplink ports	4 x GE SFP ports
Downlink ports	24 x 10/100/1000BASE-T ports
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100–240 V AC; 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC; 45 Hz to 65 Hz
Maximum input current [A]	0.8 A
Memory	2 GB
Flash memory	Physical space: 1 GB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV

Item	Specification
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.7.2 S310-24P4S

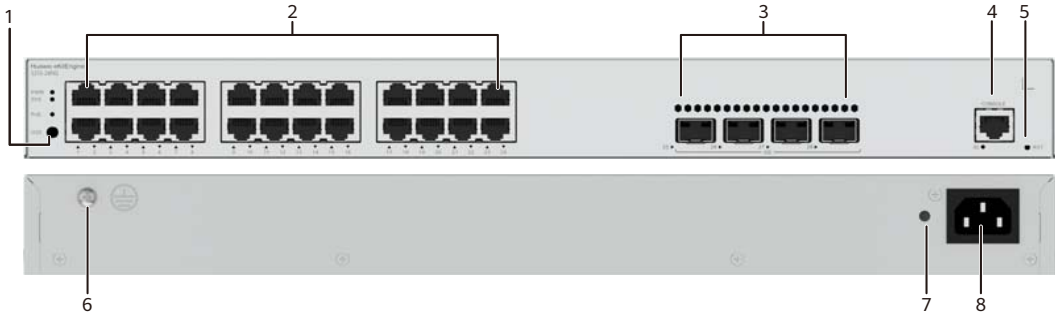
Overview

Table 4-81 Basic information about the S310-24P4S

Item	Details
Description	S310-24P4S (24*10/100/1000BASE-T ports, 4*GE SFP ports, PoE+, AC power)
Part Number	98012201
Model	S310-24P4S
First supported version	V600R022C10

Components

Figure 4-27 S310-24P4S appearance



NOTE

This model has had changes to its appearance and branding (from CloudEngine to eKitEngine), and devices delivered over different periods may have different appearances but have no differences in functions.

1	One MODE button	2	Twenty-four 10/100/1000BASE-T PoE+ ports
3	Four 1000BASE-X ports	4	One console port
5	One RST button **NOTICE** To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	6	Ground screw **NOTE** It is used with a **ground cable**.
7	Jack for AC power cable locking strap **NOTE** The AC power cable locking strap is not delivered with the switch.	8	AC socket **NOTE** It is used with an **AC power cable**.

Ports

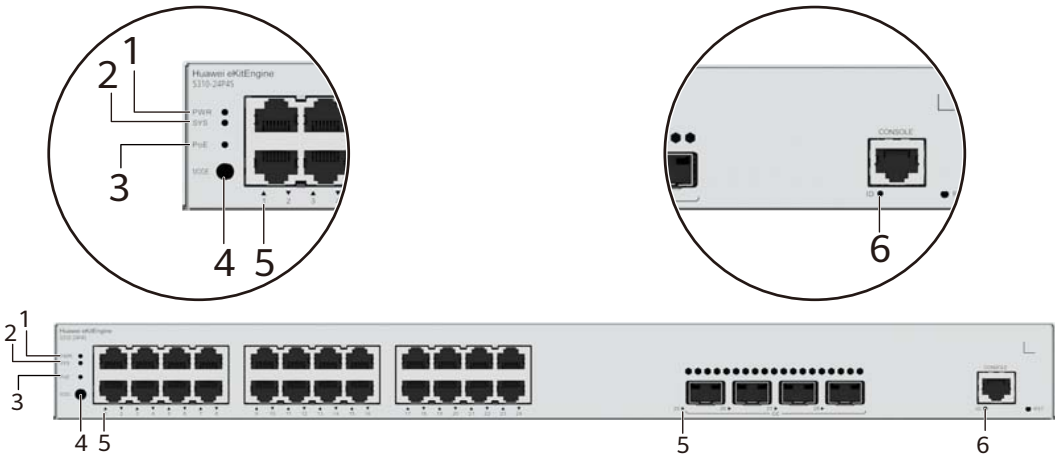
Table 4-82 Ports on the S310-24P4S

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	A 10/100/1000BASE-T PoE+ Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	**Ethernet cable**

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 1000 Mbit/s.	• GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

Figure 4-28 Indicators on the Switch



NOTE

The S310-24P4S model is used as an example. Non-PoE models do not have PoE indicator and PoE mode.

Table 4-83 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The power supply is normal.
			Yellow	Steady on	The power supply is abnormal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.
4	MODE	Mode switch button	-	-	• When you press this button once, the service port indicators change to the PoE mode and show the PoE status of each service port. • When you press this button a second time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the PoE indicator is off.

No.	Indicator	Name	Color	Status	Description
5	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see **Table 4-84**. **NOTE** If a power failure occurs on a device's PCB board, indicators of the last four optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.		
6	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.

Table 4-84 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

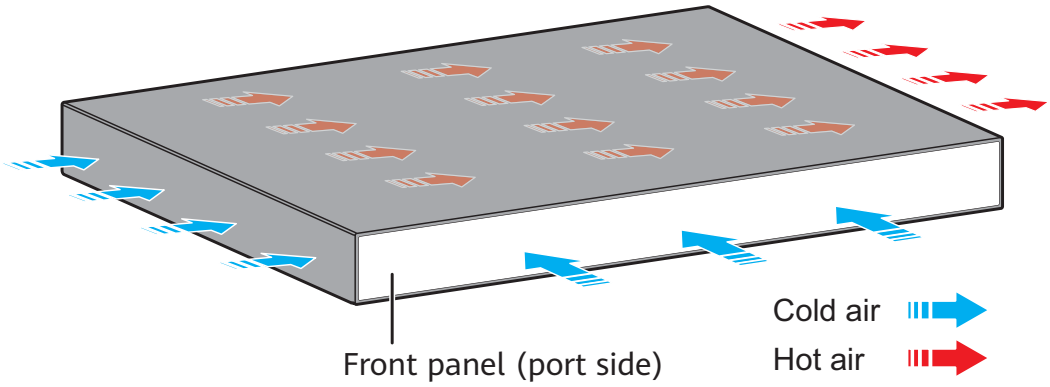
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 400 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 13 ports in compliance with 802.3at.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-85 Technical specifications of the S310-24P4S

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	2.92 kg (6.44 lb)
Weight with packaging [kg(lb)]	3.79 kg (8.36 lb)
Typical power consumption [W]	40.07 W
Typical heat dissipation [BTU/hour]	136.72 BTU/hour

Item	Specification
Maximum power consumption [W]	• Without PoE: 47.1 W • Full PoE load: 491.66 W (PoE: 400 W)
Maximum heat dissipation [BTU/hour]	• Without PoE: 160.71 • Full PoE load: 1677.59
Static power consumption [W]	30.82 W
MTBF [years]	60.18 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	49.3 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	37.3 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Uplink ports	4 x GE SFP ports
Downlink ports	24 x 10/100/1000BASE-T ports (400 W, PoE+)
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)

Item	Specification
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	• AC input: 100 V AC to 240 V AC, 50/60 Hz • High-voltage DC input: 240 V DC
Input voltage range [V]	• AC input: 90 V AC to 290 V AC; 45 Hz to 65 Hz • High-voltage DC input: 190 V DC to 290 V DC
Maximum input current [A]	6 A
Memory	2 GB
Flash memory	Physical space: 1 GB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.7.3 S310-48T4S

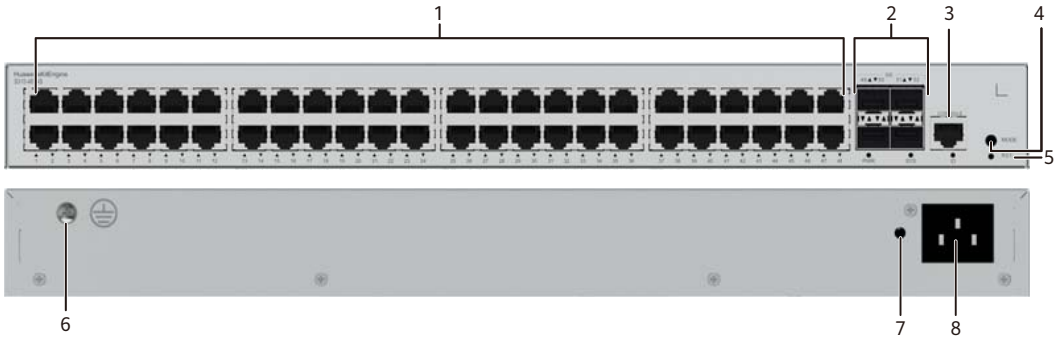
Overview

Table 4-86 Basic information about the S310-48T4S

Item	Details
Description	S310-48T4S (48*10/100/1000BASE-T ports, 4*GE SFP ports, AC power)
Part Number	98012203
Model	S310-48T4S
First supported version	V600R022C10

Components

Figure 4-29 S310-48T4S appearance



NOTE

This model has had changes to its appearance and branding (from CloudEngine to eKitEngine), and devices delivered over different periods may have different appearances but have no differences in functions.

1	Forty-eight 10/100/1000BASE-T ports	2	Four 1000BASE-X ports
3	One console port	4	One MODE button **NOTE** This button is reserved and is not required currently.

5	One RST button **NOTICE** To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	6	Ground screw **NOTE** It is used with a **ground cable**.
7	Jack for AC power cable locking strap **NOTE** The AC power cable locking strap is not delivered with the switch.	8	AC socket **NOTE** It is used with an **AC power cable**.

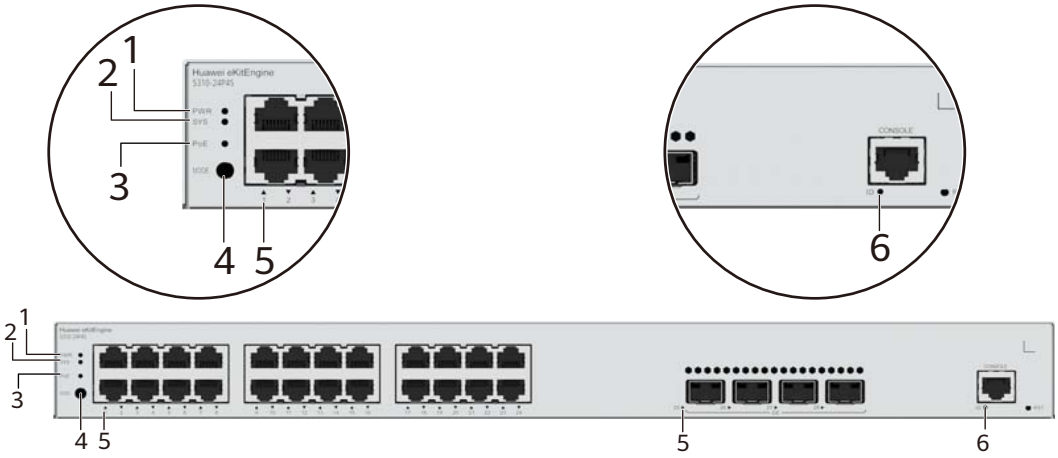
Ports

Table 4-87 Ports on the S310-48T4S

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	**Ethernet cable**
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 1000 Mbit/s.	• **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module**
Console port	RJ45	The console port is connected to a console for on-site configuration.	**Console cable**

Indicators and Buttons

Figure 4-30 Indicators on the Switch



NOTE

The S310-24P4S model is used as an example. Non-PoE models do not have PoE indicator and PoE mode.

Table 4-88 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The power supply is normal.
			Yellow	Steady on	The power supply is abnormal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
3	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.
4	MODE	Mode switch button	-	-	• When you press this button once, the service port indicators change to the PoE mode and show the PoE status of each service port. • When you press this button a second time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the PoE indicator is off.
5	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see **Table 4-89**. **NOTE** If a power failure occurs on a device's PCB board, indicators of the last four optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.		
6	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.

Table 4-89 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.

Display Mode	Color	Status	Description
	Green	Blinking	The port is sending or receiving data.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

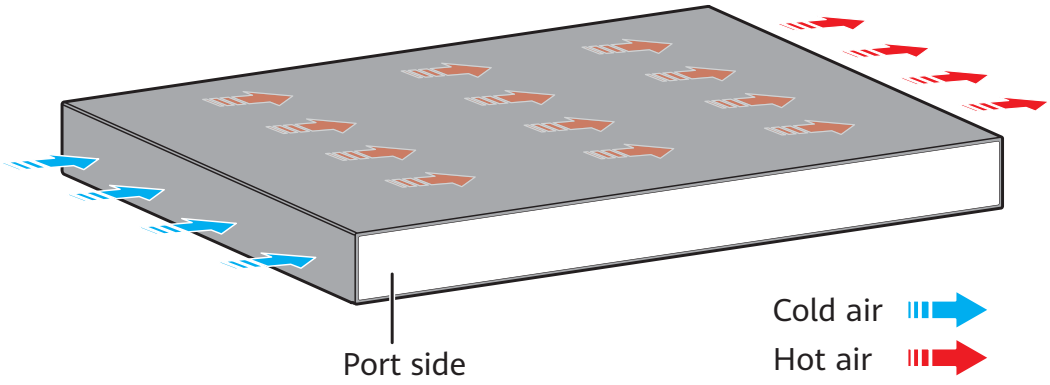
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-90 Technical specifications of the S310-48T4S

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	2.71 kg (5.97 lb)
Weight with packaging [kg(lb)]	3.59 kg (7.91 lb)
Typical power consumption [W]	44.9 W
Typical heat dissipation [BTU/hour]	153.2 BTU/hour
Maximum power consumption [W]	52.05 W
Maximum heat dissipation [BTU/hour]	177.6 BTU/hour
Static power consumption [W]	27.55 W
MTBF [years]	40.61 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	46.6 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	34.6 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.

Item	Specification
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Uplink ports	4 x GE SFP ports
Downlink ports	48 x 10/100/1000BASE-T ports
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F). The operating temperature ranges from –5°C (23°F) to +45°C (113°F) when optical modules with transmission distances greater than or equal to 60 km are used. The device does not support dying gasp when the ambient temperature is higher than 40°C (104°F).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100–240 V AC; 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC; 45 Hz to 65 Hz
Maximum input current [A]	1.6 A
Memory	2 GB
Flash memory	Physical space: 1 GB
Console port	RJ45
Eth Management port	Not supported

Item	Specification
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and air exhaust from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.7.4 S310-24T4X

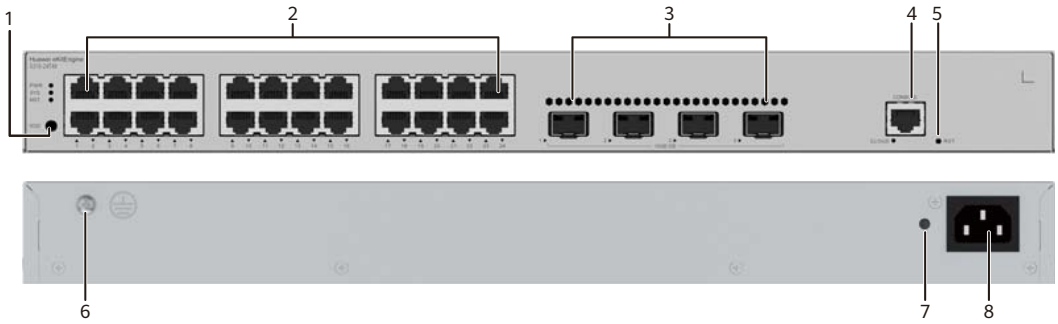
Overview

Table 4-91 Basic information about the S310-24T4X

Item	Details
Description	S310-24T4X (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, built-in AC power)
Part Number	98012381
Model	S310-24T4X
First supported version	V600R023C00

Components

Figure 4-31 S310-24T4X appearance



1	One MODE button	2	Twenty-four 10/100/1000BASE-T ports
3	Four 10GE SFP+ ports	4	One console port
5	One RST button **NOTICE** To restore the factory settings and reset the device, hold down the button for at least 6 seconds. To reset the device, press the button. Resetting the device will cause service interruption. Exercise caution when you press the button.	6	Ground screw **NOTE** It is used with a **ground cable**.
7	Jack for AC power cable locking strap **NOTE** The AC power cable locking strap is not delivered with the switch.	8	AC socket **NOTE** It is used with an **AC power cable**.

Ports

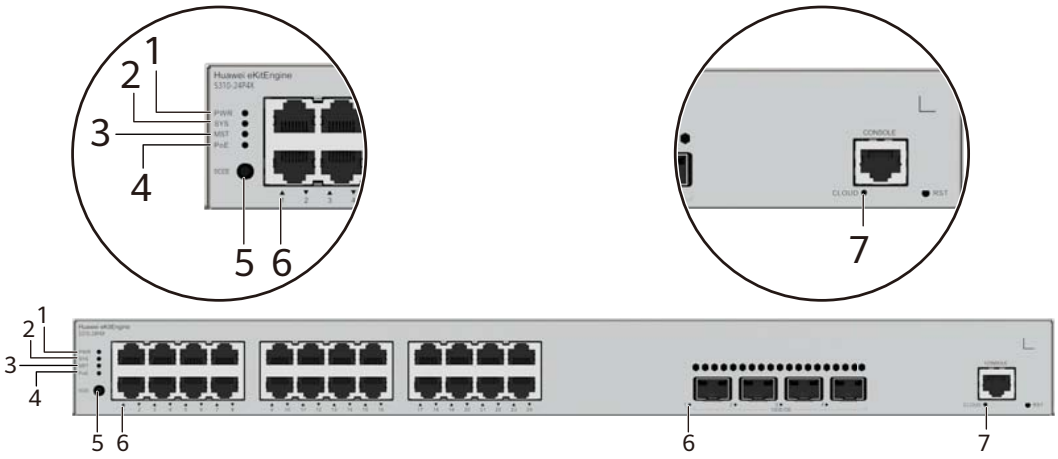
Table 4-92 Ports on the S310-24T4X

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	**Ethernet cable**

Port	Connector Type	Description	Available Components
10GE SFP+ port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	• **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module** • **10GE SFP+ optical modules** • **10GE-CWDM SFP+ optical modules** • **10GE-DWDM SFP+ optical modules** • **1 m and 3 m SFP+ high-speed copper cables** • **10 m SFP+ AOC cables** • **0.5 m and 1.5 m SFP+ dedicated stack cables (zero-configuration stacking supported)**
Console port	RJ45	The console port is connected to a console for on-site configuration.	**Console cable**

Indicators and Buttons

Figure 4-32 Indicators on the Switch



NOTE

The S310-24P4X model is used as an example. Non-PoE models do not have PoE indicator and PoE mode.

Table 4-93 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
3	MST	Stack indicator	-	Off	• If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. • If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	• If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. • If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
5	MODE	Mode switch button	-	-	• When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. • When you press this button a second time, the service port indicators change to the PoE mode and show the PoE status of each service port. • When you press this button a third time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the PoE indicator is off.
6	-	Service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see **Table 4-94**. **NOTE** If a power failure occurs on a device's PCB board, indicators of the last four GE or 10GE optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.
7	CLOUD	Cloud indicator	-		This indicator is reserved.

Table 4-94 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.

Display Mode	Color	Status	Description
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. If the indicator of a port is steady on, the number of this port is the stack ID of the switch.
	Green	Blinking	The switch is the master switch in a stack. If the indicator of a port is blinking, the number of this port is the stack ID of the switch.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

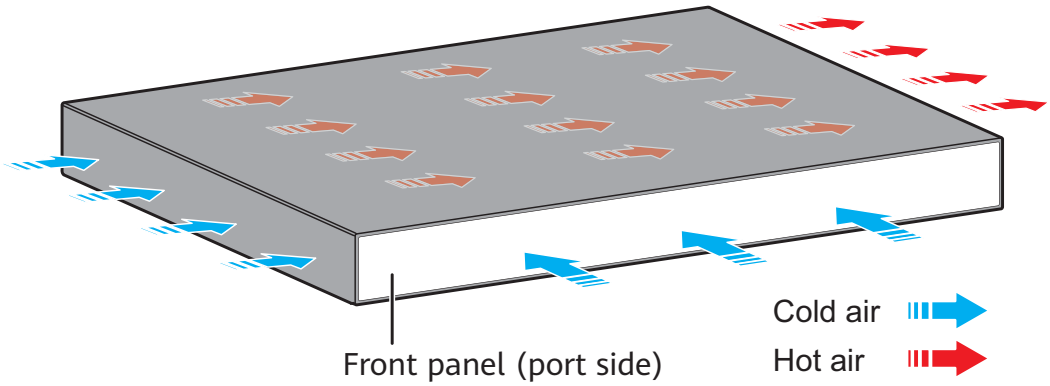
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-95 Technical specifications of the S310-24T4X

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	2.32 kg (5.11 lb)
Weight with packaging [kg(lb)]	3.44 kg (7.58 lb)
Typical power consumption [W]	27.27 W
Typical heat dissipation [BTU/hour]	93.05 BTU/hour
Maximum power consumption [W]	35.04 W
Maximum heat dissipation [BTU/hour]	119.56 BTU/hour
Static power consumption [W]	19.00 W
MTBF [years]	70.75 years
MTTR [hours]	2 hours

Item	Specification
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	47 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	35 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Uplink ports	4 x 10GE SFP+ ports
Downlink ports	24 x 10/100/1000BASE-T ports
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100–240 V AC; 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC; 45 Hz to 65 Hz
Maximum input current [A]	0.8 A

Item	Specification
Memory	2 GB
Flash memory	Physical space: 1 GB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.7.5 S310-24P4X

Overview

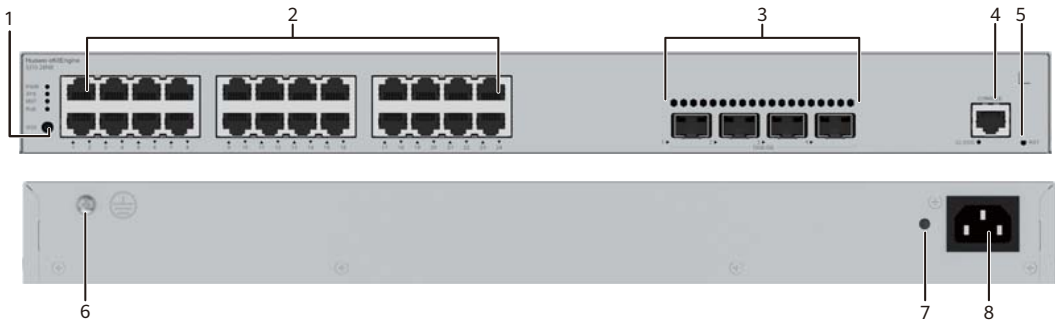
Table 4-96 Basic information about the S310-24P4X

Item	Details
Description	S310-24P4X (24*10/100/1000BASE-T ports(400W PoE+), 4*10GE SFP+ ports, built-in AC power)
Part Number	98012382
Model	S310-24P4X

Item	Details
First supported version	V600R023C00

Components

Figure 4-33 S310-24P4X appearance



1	One MODE button	2	Twenty-four 10/100/1000BASE-T PoE+ ports
3	Four 10GE SFP+ ports	4	One console port
5	One RST button **NOTICE** To restore the factory settings and reset the device, hold down the button for at least 6 seconds. To reset the device, press the button. Resetting the device will cause service interruption. Exercise caution when you press the button.	6	Ground screw **NOTE** It is used with a **ground cable**.
7	Jack for AC power cable locking strap **NOTE** The AC power cable locking strap is not delivered with the switch.	8	AC socket **NOTE** It is used with an **AC power cable**.

Ports

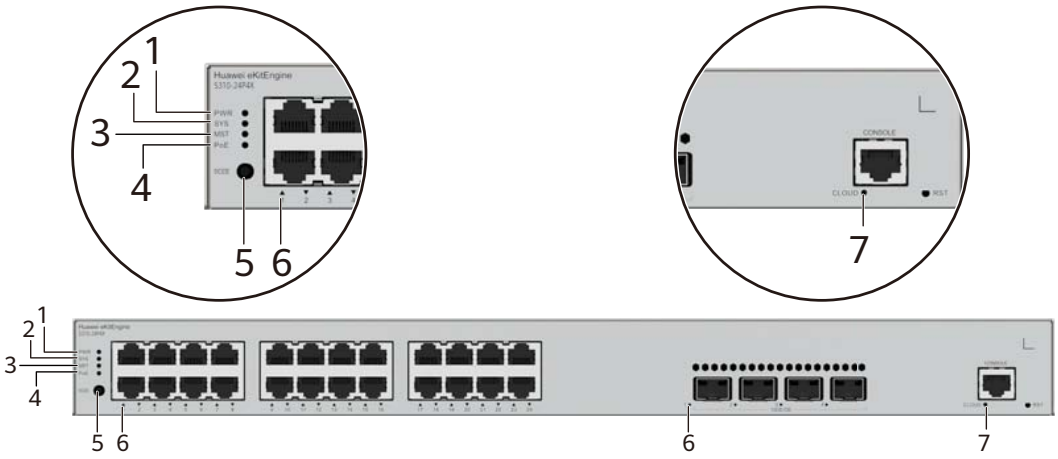
Table 4-97 Ports on the S310-24P4X

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	**Ethernet cable**

Port	Connector Type	Description	Available Components
10GE SFP+ port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	• **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module** • **10GE SFP+ optical modules** • **10GE-CWDM SFP+ optical modules** • **10GE-DWDM SFP+ optical modules** • **1 m and 3 m SFP+ high-speed copper cables** • **10 m SFP+ AOC cables** • **0.5 m and 1.5 m SFP+ dedicated stack cables (zero-configuration stacking supported)**
Console port	RJ45	The console port is connected to a console for on-site configuration.	**Console cable**

Indicators and Buttons

Figure 4-34 Indicators on the Switch



NOTE

The S310-24P4X model is used as an example. Non-PoE models do not have PoE indicator and PoE mode.

Table 4-98 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
3	MST	Stack indicator	-	Off	• If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. • If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	• If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. • If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
5	MODE	Mode switch button	-	-	• When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. • When you press this button a second time, the service port indicators change to the PoE mode and show the PoE status of each service port. • When you press this button a third time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the PoE indicator is off.
6	-	Service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see **Table 4-99**. **NOTE** If a power failure occurs on a device's PCB board, indicators of the last four GE or 10GE optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.
7	CLOUD	Cloud indicator	-		This indicator is reserved.

Table 4-99 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.

Display Mode	Color	Status	Description
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. If the indicator of a port is steady on, the number of this port is the stack ID of the switch.
	Green	Blinking	The switch is the master switch in a stack. If the indicator of a port is blinking, the number of this port is the stack ID of the switch.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

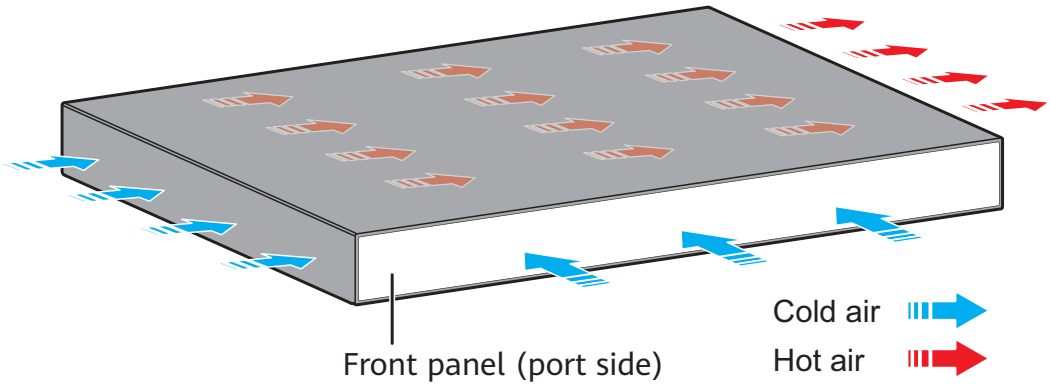
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 400 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 13 ports in compliance with 802.3at.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-100 Technical specifications of the S310-24P4X

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	2.92 kg (6.44 lb)
Weight with packaging [kg(lb)]	3.79 kg (8.36 lb)
Typical power consumption [W]	37.12 W
Typical heat dissipation [BTU/hour]	126.65 BTU/hour
Maximum power consumption [W]	• Without PoE: 44.35 W • Full PoE load: 485.91 W (PoE: 400 W)
Maximum heat dissipation [BTU/hour]	• Without PoE: 151.32 • Full PoE load: 1657.92

Item	Specification
Static power consumption [W]	27.07 W
MTBF [years]	60.18 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	49.3 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	37.3 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Uplink ports	4 x 10GE SFP+ ports
Downlink ports	24 x 10/100/1000BASE-T ports (400 W, PoE+)
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in

Item	Specification
Rated input voltage [V]	• AC input: 100 V AC to 240 V AC, 50/60 Hz • High-voltage DC input: 240 V DC
Input voltage range [V]	• AC input: 90 V AC to 290 V AC; 45 Hz to 65 Hz • High-voltage DC input: 190 V DC to 290 V DC
Maximum input current [A]	6 A
Memory	2 GB
Flash memory	Physical space: 1 GB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.7.6 S310-24ST4X

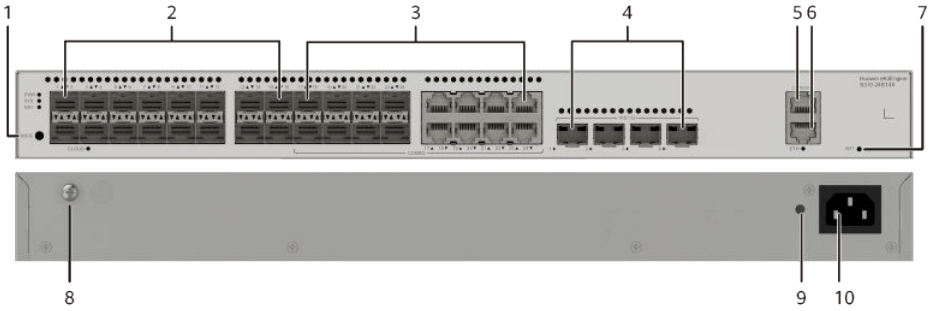
Overview

Table 4-101 Basic information about the S310-24ST4X

Item	Details
Description	S310-24ST4X(24*GE SFP ports, 8 of which are dual-purpose 10/100/1000 or SFP, 4*10GE SFP+ ports, built-in AC power)
Part Number	98012532
Model	S310-24ST4X
First supported version	V600R023C10SPC600

Components

Figure 4-35 S310-24ST4X appearance



1	One MODE button	2	Sixteen 100/1000BASE-X ports
3	Eight Combo ports (100/1000BASE-X optical ports and 10/100/1000BASE-T electrical ports)	4	Four 10GE SFP+ ports
5	One console port	6	One ETH management port
7	One RST button **NOTICE** To restore the factory settings and reset the device, hold down the button for at least 6 seconds. To reset the device, press the button. Resetting the device will cause service interruption. Exercise caution when you press the button.	8	Ground screw **NOTE** It is used with a **ground cable**.

9	Jack for AC power cable locking strap **NOTE** The AC power cable locking strap is not delivered with the switch.	10	AC socket **NOTE** It is used with an **AC power cable**.

Ports

Table 4-102 Ports on the S310-24ST4X

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	A 100/1000BASE-X port can send and receive data at 100/1000 Mbit/s.	• **FE SFP/eSFP optical modules** • **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module**
Combo port (10/100/1000BASE-T + 100/1000BASE-X)	RJ45/SFP	A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.	• **Ethernet cable** • **FE SFP/eSFP optical modules** • **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules**

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	• **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module** • **10GE SFP+ optical modules** • **10GE-CWDM SFP+ optical modules** • **10GE-DWDM SFP+ optical modules** • **1 m, 2 m, and 3 m SFP+ high-speed copper cables** • **10 m SFP+ AOC cables** • **0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)**
Console port	RJ45	The console port is connected to a console for on-site configuration.	**Console cable**

Port	Connector Type	Description	Available Components
ETH management port	RJ45	You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.	Ethernet cable

Indicators and Buttons

Figure 4-36 Indicators on the Switch

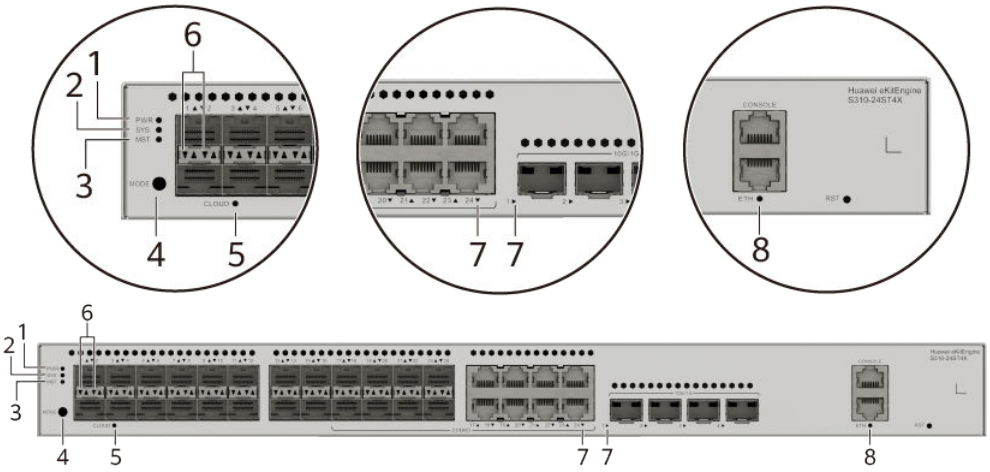


Table 4-103 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	MST	Stack indicator	-	Off	• If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. • If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	• If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. • If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator	Name	Color	Status	Description
4	MODE	Mode switch button	-	-	• When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. • When you press this button a second time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode.
5	CLOUD	Cloud indicator	-		This indicator is reserved.
6	-	Optical service port indicator (two indicators for each port)	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see **Table 4-104** and **Table 4-105**. **NOTE** If a power failure occurs on a device's PCB board, indicators of the last four GE or 10GE optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.

No.	Indicator	Name	Color	Status	Description
7	-	Electrical or optical service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
8	ETH	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.

Table 4-104 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.

Table 4-105 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.

Display Mode	Color	Status	Description
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.
MST stack mode (LINK indicator)	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. If the indicator of a port is steady on, the number of this port is the stack ID of the switch.
	Green	Blinking	The switch is the master switch in a stack. If the indicator of a port is blinking, the number of this port is the stack ID of the switch.
MST stack mode (ACT indicator)	-	Off	Port indicators do not show the stack ID of the switch.

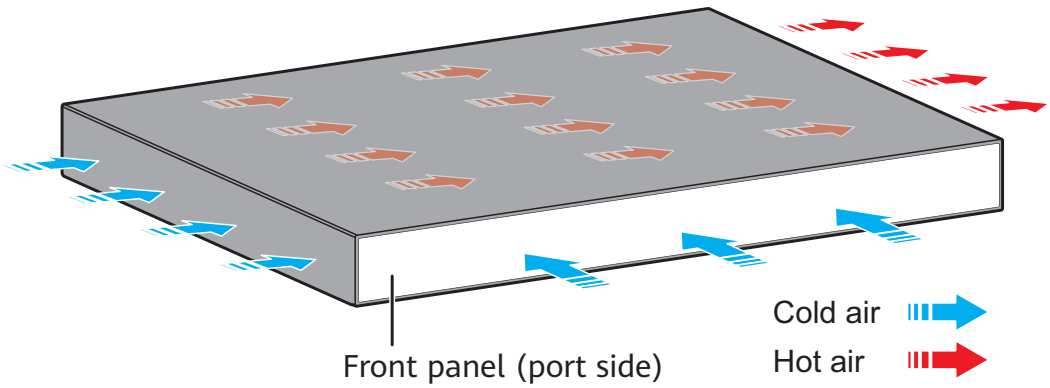
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-106 Technical specifications of the S310-24ST4X

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	2.9 kg (6.39 lb)
Weight with packaging [kg(lb)]	3.55 kg (7.83 lb)
Typical power consumption [W]	32.6 W
Typical heat dissipation [BTU/hour]	111.23 BTU/hour
Maximum power consumption [W]	41.7 W
Maximum heat dissipation [BTU/hour]	142.28 BTU/hour
Static power consumption [W]	17.57 W
MTBF [years]	47.39 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	38.1 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	26.1 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2

Item	Specification
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	• AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 110 V DC to 250 V DC
Input voltage range [V]	• AC input: 90 V AC to 264 V AC; 47 Hz to 63 Hz • High-voltage DC input: 88 V DC to 300 V DC
Maximum input current [A]	2 A
Memory	2 GB
Flash memory	Physical space: 1 GB
Console port	RJ45
Eth Management port	Supported
USB	Not supported
RTC	Not supported

Item	Specification
RPS input	Not supported
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.7.7 S310-24PN4X

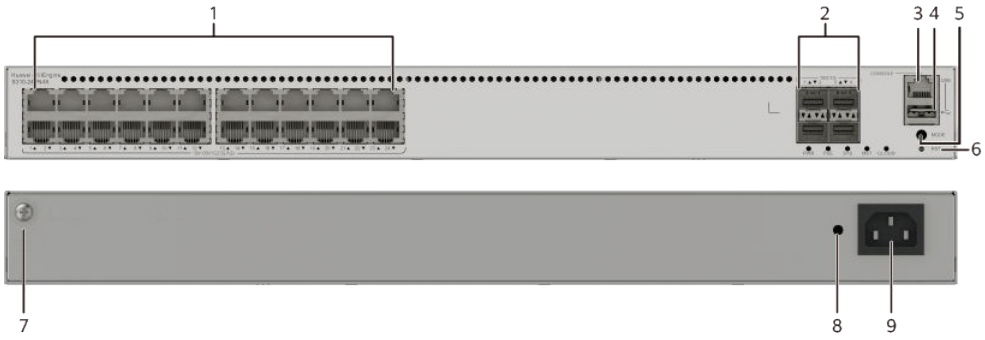
Overview

Table 4-107 Basic information about the S310-24PN4X

Item	Details
Description	S310-24PN4X(24*10/100/1000/2.5GBASE-T ports(400W PoE+), 4*10GE SFP+ ports, built-in AC power)
Part Number	98012534
Model	S310-24PN4X
First supported version	V600R023C10SPC600

Components

Figure 4-37 S310-24PN4X appearance



1	Twenty-four 10M/100M/1000M/2.5GE BASE-T PoE+ ports (multi-GE ports)	2	Four 10GE SFP+ ports
3	One console port	4	One USB port
5	One MODE button	6	One RST button **NOTICE** To restore the factory settings and reset the device, hold down the button for at least 6 seconds. To reset the device, press the button. Resetting the device will cause service interruption. Exercise caution when you press the button.
7	Ground screw **NOTE** It is used with a **ground cable**.	8	Jack for AC power cable locking strap **NOTE** The AC power cable locking strap is not delivered with the switch.
9	AC socket **NOTE** It is used with an **AC power cable**.	-	-

Ports

Table 4-108 Maximum transmission distances of different cables on multi-GE ports

Cable Type (6-a-1 Bundle)	Multi-GE Port (Different Rates)	
	10M/100M/1000M	2.5GE
Category 5e unshielded twisted pair (Cat5e UTP)	100 m	100 m
Category 5e shielded twisted pair (Cat5e STP)	100 m	100 m
Category 6 unshielded twisted pair (Cat6 UTP)	100 m	100 m
Category 6 shielded twisted pair (Cat6 STP)	100 m	100 m
Category 6A unshielded twisted pair (Cat6A U/UTP)	100 m	100 m
Category 6A foiled/unshielded twisted pair (Cat6A F/UTP)	100 m	100 m
Category 6A shielded twisted pair (Cat6A STP)	100 m	100 m
Category 7 twisted pair (Cat7)	100 m	100 m

NOTE

6-a-1 stands for the six-around-one cable bundle mode, with one cable in the center and six cables bundled evenly around it.

Table 4-109 Ports on the S310-24PN4X

Port	Connector Type	Description	Available Components
10M/100M/1G/2.5GE BASE-T PoE + port (multi-GE port)	RJ45	A 10M/100M/1G/2.5GE BASE-T PoE + port (multi-GE port) sends and receives service data at 10 Mbit/s, 100 Mbit/s, 1 Gbit/s, or 2.5 Gbit/s. The port supports the PoE function.	If the 2.5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category.

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	• **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module** • **10GE SFP+ optical modules** • **10GE-CWDM SFP+ optical modules** • **10GE-DWDM SFP+ optical modules** • **1 m and 3 m SFP+ high-speed copper cables** • **10 m SFP+ AOC cables** • **0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)**
Console port	RJ45	The console port is connected to a console for on-site configuration.	**Console cable**

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0. USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor.	USB flash drive

Indicators and Buttons

Figure 4-38 Indicators on the Switch

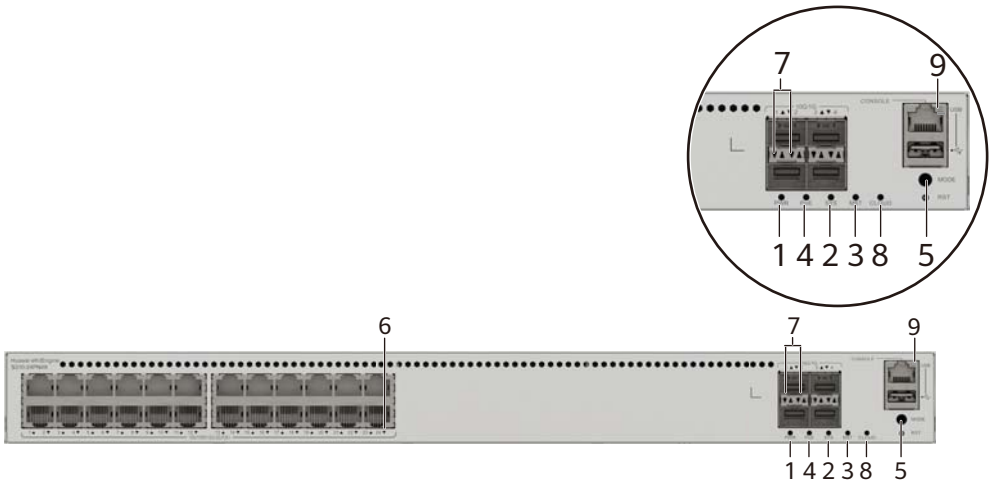


Table 4-110 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	MST	Stack indicator	-	Off	• If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. • If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.

No.	Indicator	Name	Color	Status	Description
			Green	Blinking	• If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. • If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.
5	MODE	Mode switch button	-	-	• When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. • When you press this button a second time, the service port indicators change to the PoE mode and show the PoE status of each service port. • When you press this button a third time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the PoE indicator is off.

No.	Indicator	Name	Color	Status	Description
6	-	Electrical service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see **Table 4-111** and **Table 4-112**. **NOTE** If a power failure occurs on a device's PCB board, indicators of the last four GE or 10GE optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.
7	-	Optical service port indicator (two indicators for each port)	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
8	CLOUD	Cloud indicator	-		This indicator is reserved.
9	USB	USB-based deployment indicator	-	Off	No USB flash drive is installed, or the indicator fails.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	USB-based deployment succeeds. If there is no deployment configuration file, deployment will be repeatedly performed. In this case, the indicator is also steady green.
			Green	Blinking	USB-based deployment is in progress.
			Red	Steady on	USB-based deployment fails.

Table 4-111 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. If the indicator of a port is steady on, the number of this port is the stack ID of the switch.
	Green	Blinking	The switch is the master switch in a stack. If the indicator of a port is blinking, the number of this port is the stack ID of the switch.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.

Display Mode	Color	Status	Description
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Table 4-112 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.

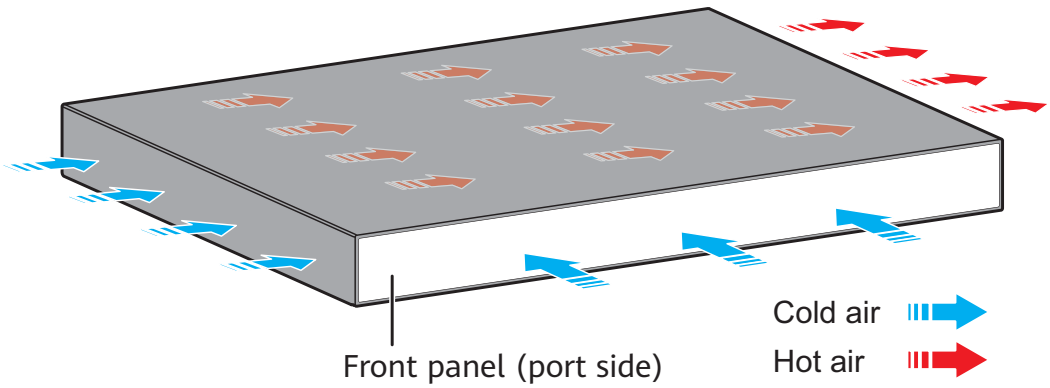
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 400 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 13 ports in compliance with 802.3at.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-113 Technical specifications of the S310-24PN4X

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 446.0 mm (1.72 in. x 17.4 in. x 17.56 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185.0 mm x 650.0 mm x 550.0 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	4.71 kg (10.38 lb)
Weight with packaging [kg(lb)]	6.89 kg (15.19 lb)
Typical power consumption [W]	54.8 W
Typical heat dissipation [BTU/hour]	186.98 BTU/hour
Maximum power consumption [W]	• Without PoE: 77.70 W • Full PoE load: 517.30 W (PoE: 400 W)
Maximum heat dissipation [BTU/hour]	• Without PoE: 265.12 • Full PoE load: 1765.08
Static power consumption [W]	37.1 W
MTBF [years]	54.48 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	47.9 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	34.22 dB(A)

Item	Specification
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	–5°C to +45°C (23°F to 113°F) at an altitude of 0 to 1800 m (0 to 5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F). The operating temperature ranges from –5°C (23°F) to +45°C (113°F) when optical modules with transmission distances greater than or equal to 60 km are used.
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	• AC input: 100 V AC to 240 V AC, 50/60 Hz • High-voltage DC input: 240 V DC
Input voltage range [V]	• AC input: 90 V AC to 290 V AC; 45 Hz to 65 Hz • High-voltage DC input: 190 V DC to 290 V DC
Maximum input current [A]	6 A

Item	Specification
Memory	2 GB
Flash memory	Physical space: 1 GB
Console port	RJ45
Eth Management port	Not supported
USB	Supported
RTC	Not supported
RPS input	Not supported
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.7.8 S310-48T4X

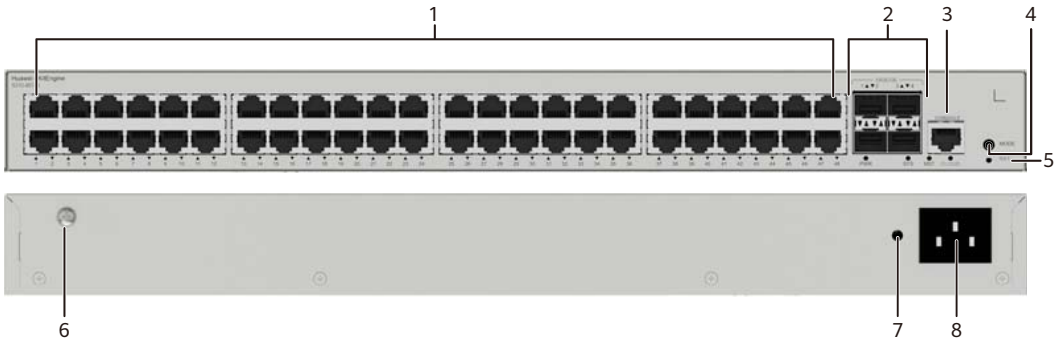
Overview

Table 4-114 Basic information about the S310-48T4X

Item	Details
Description	S310-48T4X (48*10/100/1000BASE-T ports, 4*10GE SFP+ ports, built-in AC power)
Part Number	98012383
Model	S310-48T4X
First supported version	V600R023C00

Components

Figure 4-39 S310-48T4X appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports
3	One console port	4	One MODE button
5	One RST button **NOTICE** To restore the factory settings and reset the device, hold down the button for at least 6 seconds. To reset the device, press the button. Resetting the device will cause service interruption. Exercise caution when you press the button.	6	Ground screw **NOTE** It is used with a **ground cable**.
7	Jack for AC power cable locking strap **NOTE** The AC power cable locking strap is not delivered with the switch.	8	AC socket **NOTE** It is used with an **AC power cable**.

Ports

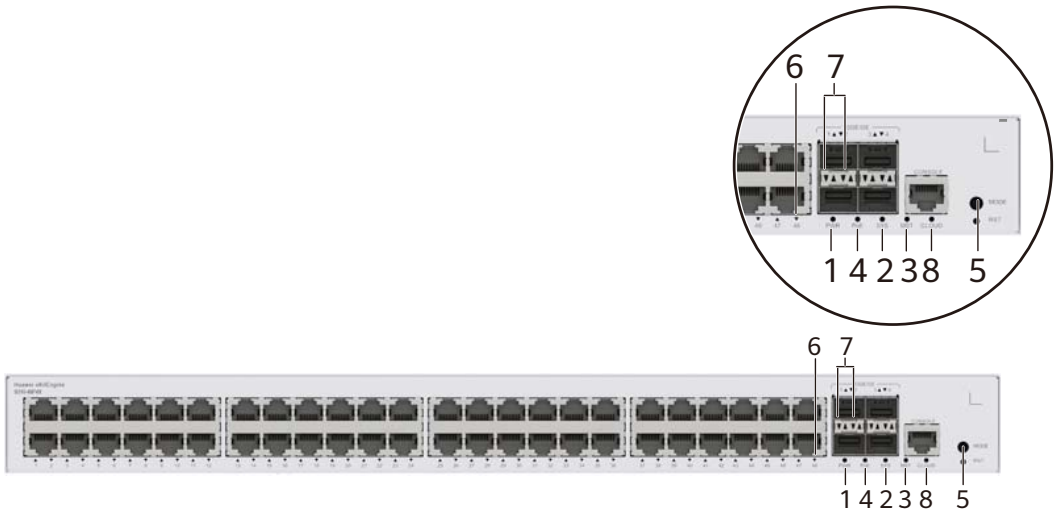
Table 4-115 Ports on the S310-48T4X

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	**Ethernet cable**

Port	Connector Type	Description	Available Components
10GE SFP+ port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	• **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module** • **10GE SFP+ optical modules** • **10GE-CWDM SFP+ optical modules** • **10GE-DWDM SFP+ optical modules** • **1 m and 3 m SFP+ high-speed copper cables** • **10 m SFP+ AOC cables** • **0.5 m and 1.5 m SFP+ dedicated stack cables (zero-configuration stacking supported)**
Console port	RJ45	The console port is connected to a console for on-site configuration.	**Console cable**

Indicators and Buttons

Figure 4-40 Indicators on the Switch



NOTE

The S310-48P4X model is used as an example. Non-PoE models do not have PoE indicator and PoE mode.

Table 4-116 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
3	MST	Stack indicator	-	Off	• If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. • If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	• If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. • If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
5	MODE	Mode switch button	-	-	• When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. • When you press this button a second time, the service port indicators change to the PoE mode and show the PoE status of each service port. • When you press this button a third time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the PoE indicator is off.
6	-	Electrical service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see **Table 4-117** and **Table 4-118**. **NOTE** If a power failure occurs on a device's PCB board, indicators of the last four GE or 10GE optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.

No.	Indicator	Name	Color	Status	Description
7	-	Optical service port indicator (two indicators for each port)	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
8	CLOUD	Cloud indicator	-		This indicator is reserved.

Table 4-117 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green	Steady on	The switch is not the master switch in a stack. If the indicator of a port is steady on, the number of this port is the stack ID of the switch.
	Green	Blinking	The switch is the master switch in a stack. If the indicator of a port is blinking, the number of this port is the stack ID of the switch.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Table 4-118 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.

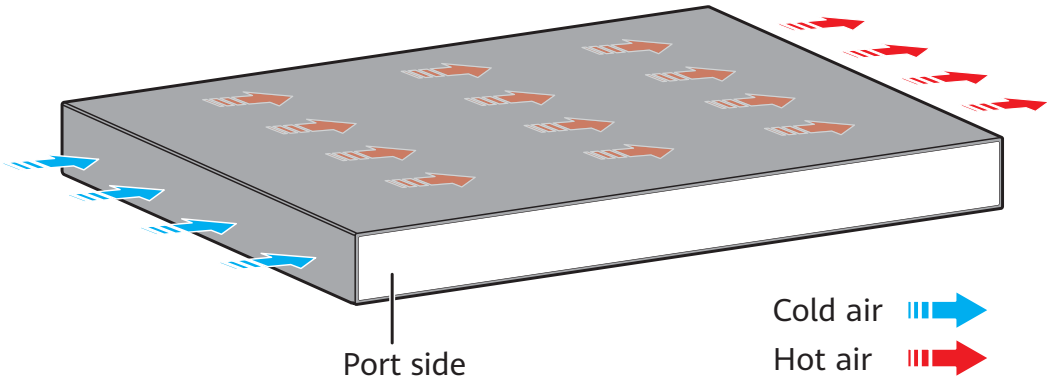
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation System

The switch has a built-in fan for forced air cooling. Air flows in from the left side, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-119 Technical specifications of the S310-48T4X

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	2.71 kg (5.97 lb)
Weight with packaging [kg(lb)]	3.59 kg (7.91 lb)
Typical power consumption [W]	36.95 W
Typical heat dissipation [BTU/hour]	126.07 BTU/hour

Item	Specification
Maximum power consumption [W]	44.3 W
Maximum heat dissipation [BTU/hour]	151.15 BTU/hour
Static power consumption [W]	18.8 W
MTBF [years]	40.61 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	46.6 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	34.6 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	1
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Uplink ports	4 x 10GE SFP+ ports
Downlink ports	48 x 10/100/1000BASE-T ports
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F). The operating temperature ranges from –5°C (23°F) to +45°C (113°F) when optical modules with transmission distances greater than or equal to 60 km are used. The device does not support dying gasp when the ambient temperature is higher than 40°C (104°F).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	AC input: 100–240 V AC; 50/60 Hz
Input voltage range [V]	AC input: 90 V AC to 264 V AC; 45 Hz to 65 Hz
Maximum input current [A]	1.6 A
Memory	2 GB
Flash memory	Physical space: 1 GB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV
Ingress protection level (dustproof/ waterproof)	IP20

Item	Specification
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and air exhaust from right
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.7.9 S310-48P4S

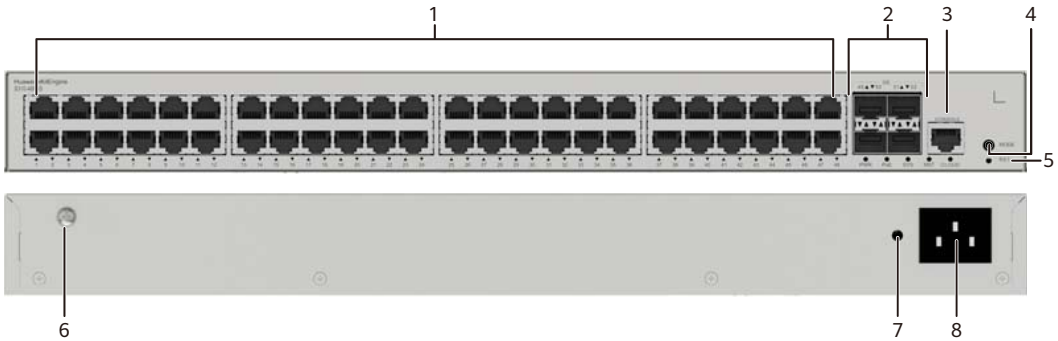
Overview

Table 4-120 Basic information about the S310-48P4S

Item	Details
Description	S310-48P4S (48*10/100/1000BASE-T ports(380W PoE+), 4*GE SFP ports, built-in AC power)
Part Number	98012384
Model	S310-48P4S
First supported version	V600R023C00

Components

Figure 4-41 S310-48P4S appearance



1	Forty-eight 10/100/1000BASE-T PoE + ports	2	Four 1000BASE-X ports
3	One console port	4	One MODE button
5	One RST button **NOTICE** To restore the factory settings and reset the device, hold down the button for at least 6 seconds. To reset the device, press the button. Resetting the device will cause service interruption. Exercise caution when you press the button.	6	Ground screw **NOTE** It is used with a **ground cable**.
7	Jack for AC power cable locking strap **NOTE** The AC power cable locking strap is not delivered with the switch.	8	AC socket **NOTE** It is used with an **AC power cable**.

Ports

Table 4-121 Ports on the S310-48P4S

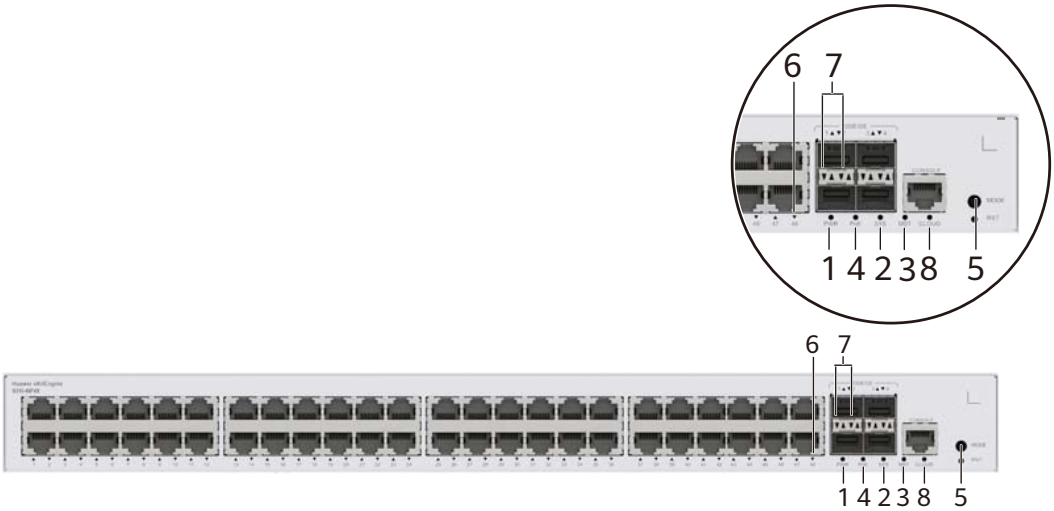
Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	**Ethernet cable**

Port	Connector Type	Description	Available Components
1000BASE-X port	SFP	A 1000BASE-X port can send and receive data at 1000 Mbit/s.	• GE eSFP optical modules • GE-CWDM eSFP optical modules • GE-DWDM eSFP optical modules • GE SFP copper module • 10GE SFP+ optical modules (only used for stack connection) • 10GE-CWDM SFP+ optical modules (only used for stack connection) • 10GE-DWDM SFP+ optical modules (only used for stack connection) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection) • 10 m SFP+ AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack cables (only used for stack connection; zero-configuration

Port	Connector Type	Description	Available Components
			stacking supported)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Indicators and Buttons

Figure 4-42 Indicators on the Switch



NOTE

The S310-48P4X model is used as an example. Non-PoE models do not have PoE indicator and PoE mode.

Table 4-122 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	MST	Stack indicator	-	Off	• If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. • If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	• If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. • If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
5	MODE	Mode switch button	-	-	• When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. • When you press this button a second time, the service port indicators change to the PoE mode and show the PoE status of each service port. • When you press this button a third time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the PoE indicator is off.
6	-	Electrical service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see **Table 4-123** and **Table 4-124**. **NOTE** If a power failure occurs on a device's PCB board, indicators of the last four GE or 10GE optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.

No.	Indicator	Name	Color	Status	Description
7	-	Optical service port indicator (two indicators for each port)	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
8	CLOUD	Cloud indicator	-		This indicator is reserved.

Table 4-123 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green	Steady on	The switch is not the master switch in a stack. If the indicator of a port is steady on, the number of this port is the stack ID of the switch.
	Green	Blinking	The switch is the master switch in a stack. If the indicator of a port is blinking, the number of this port is the stack ID of the switch.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Table 4-124 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.

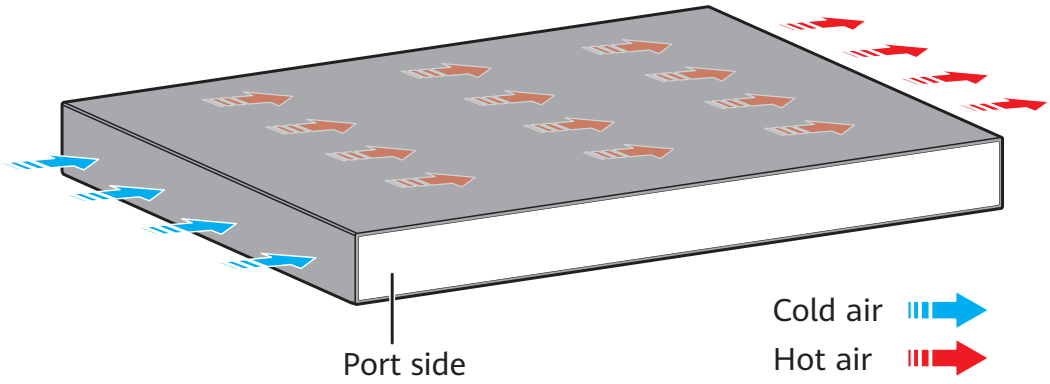
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-125 Technical specifications of the S310-48P4S

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	3.24 kg (7.14 lb)
Weight with packaging [kg(lb)]	4.29 kg (9.46 lb)
Typical power consumption [W]	48.64 W
Typical heat dissipation [BTU/hour]	165.96 BTU/hour

Item	Specification
Maximum power consumption [W]	• Without PoE: 63.7 W • Full PoE load: 462.80 W (PoE: 380 W)
Maximum heat dissipation [BTU/hour]	• Without PoE: 217.34 • Full PoE load: 1579.12
Static power consumption [W]	34.04 W
MTBF [years]	48.14 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	49.3 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	37.3 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Uplink ports	4 x GE SFP ports
Downlink ports	48 x 10/100/1000BASE-T ports (380 W, PoE+)
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F). The operating temperature ranges from –5°C (23°F) to +45°C (113°F) when optical modules with transmission distances greater than or equal to 60 km are used.
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	• AC input: 100 V AC to 240 V AC, 50/60 Hz • High-voltage DC input: 240 V DC
Input voltage range [V]	• AC input: 90 V AC to 290 V AC; 45 Hz to 65 Hz • High-voltage DC input: 190 V DC to 290 V DC
Maximum input current [A]	6 A
Memory	2 GB
Flash memory	Physical space: 1 GB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV

Item	Specification
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and air exhaust from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.7.10 S310-48P4X

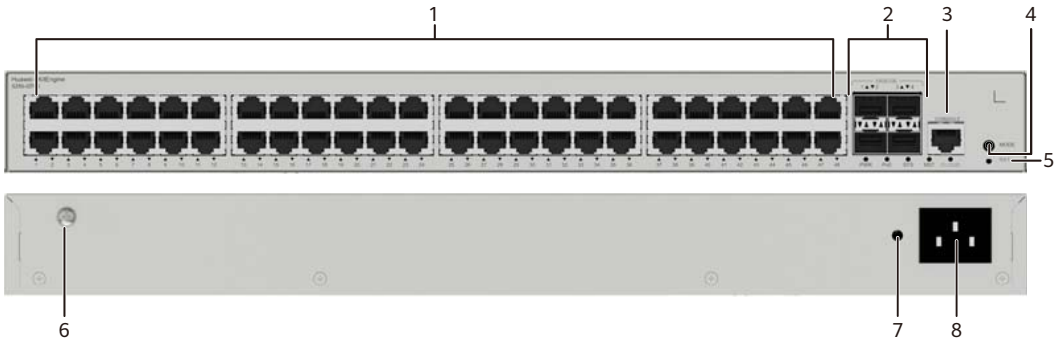
Overview

Table 4-126 Basic information about the S310-48P4X

Item	Details
Description	S310-48P4X (48*10/100/1000BASE-T ports(380W PoE+), 4*10GE SFP+ ports, built-in AC power)
Part Number	98012385
Model	S310-48P4X
First supported version	V600R023C00

Components

Figure 4-43 S310-48P4X appearance



1	Forty-eight 10/100/1000BASE-T PoE + ports	2	Four 10GE SFP+ ports
3	One console port	4	One MODE button
5	One RST button **NOTICE** To restore the factory settings and reset the device, hold down the button for at least 6 seconds. To reset the device, press the button. Resetting the device will cause service interruption. Exercise caution when you press the button.	6	Ground screw **NOTE** It is used with a **ground cable**.
7	Jack for AC power cable locking strap **NOTE** The AC power cable locking strap is not delivered with the switch.	8	AC socket **NOTE** It is used with an **AC power cable**.

Ports

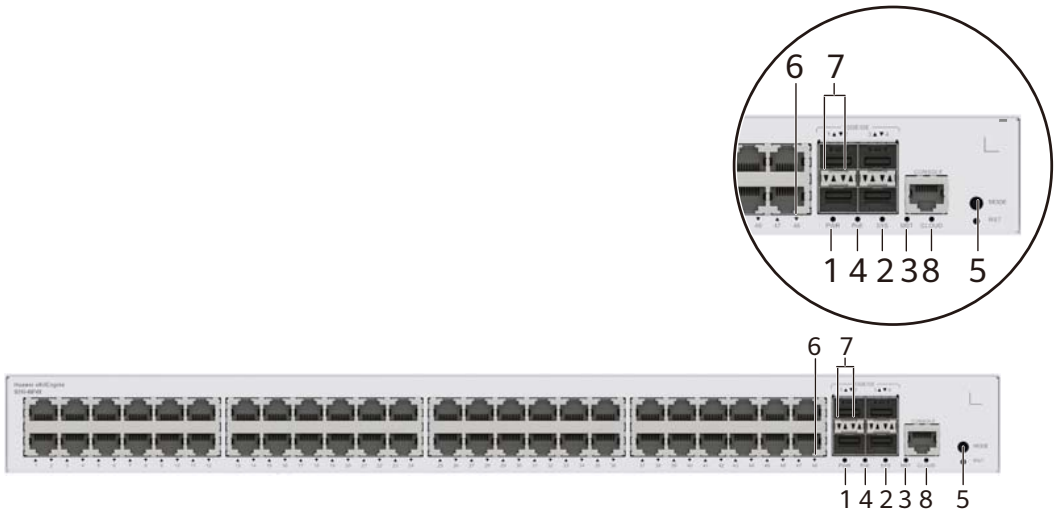
Table 4-127 Ports on the S310-48P4X

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	**Ethernet cable**

Port	Connector Type	Description	Available Components
10GE SFP+ port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	• **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module** • **10GE SFP+ optical modules** • **10GE-CWDM SFP+ optical modules** • **10GE-DWDM SFP+ optical modules** • **1 m and 3 m SFP+ high-speed copper cables** • **10 m SFP+ AOC cables** • **0.5 m and 1.5 m SFP+ dedicated stack cables (zero-configuration stacking supported)**
Console port	RJ45	The console port is connected to a console for on-site configuration.	**Console cable**

Indicators and Buttons

Figure 4-44 Indicators on the Switch



NOTE

The S310-48P4X model is used as an example. Non-PoE models do not have PoE indicator and PoE mode.

Table 4-128 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
3	MST	Stack indicator	-	Off	• If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. • If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	• If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. • If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
5	MODE	Mode switch button	-	-	• When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. • When you press this button a second time, the service port indicators change to the PoE mode and show the PoE status of each service port. • When you press this button a third time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the PoE indicator is off.
6	-	Electrical service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see **Table 4-129** and **Table 4-130**. **NOTE** If a power failure occurs on a device's PCB board, indicators of the last four GE or 10GE optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.

No.	Indicator	Name	Color	Status	Description
7	-	Optical service port indicator (two indicators for each port)	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
8	CLOUD	Cloud indicator	-		This indicator is reserved.

Table 4-129 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green	Steady on	The switch is not the master switch in a stack. If the indicator of a port is steady on, the number of this port is the stack ID of the switch.
	Green	Blinking	The switch is the master switch in a stack. If the indicator of a port is blinking, the number of this port is the stack ID of the switch.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Table 4-130 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.

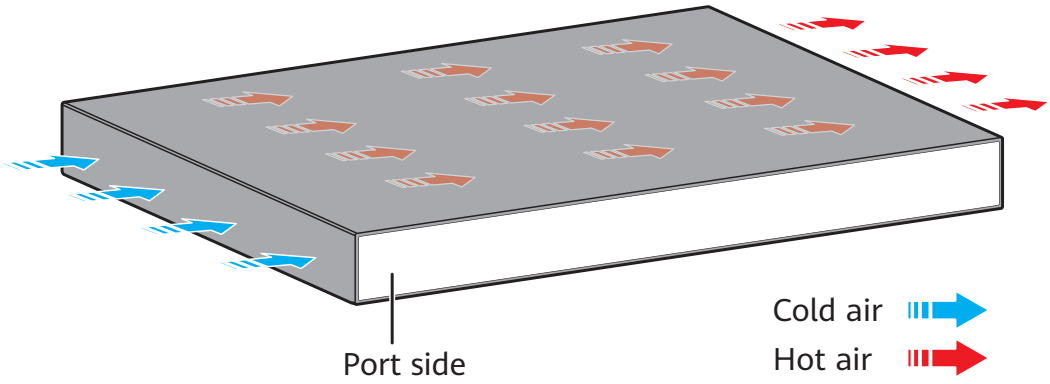
Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left side, and exhausts from the right side.

When working properly at a normal temperature, the device meets the desktop-class noise requirements. However, the fan speed may be high and the noise may be loud during device startup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-131 Technical specifications of the S310-48P4X

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90.0 mm x 550.0 mm x 360.0 mm (3.54 in. x 21.65 in. x 14.17 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	3.24 kg (7.14 lb)
Weight with packaging [kg(lb)]	4.29 kg (9.46 lb)
Typical power consumption [W]	49.44 W
Typical heat dissipation [BTU/hour]	168.69 BTU/hour

Item	Specification
Maximum power consumption [W]	• Without PoE: 64.7 W • Full PoE load: 462.80 W (PoE: 380 W)
Maximum heat dissipation [BTU/hour]	• Without PoE: 220.76 • Full PoE load: 1579.12
Static power consumption [W]	34.04 W
MTBF [years]	48.14 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	49.3 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	37.3 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans modules	2
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Uplink ports	4 x 10GE SFP+ ports
Downlink ports	48 x 10/100/1000BASE-T ports (380 W, PoE+)
Redundant power supply	Not supported
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F). The operating temperature ranges from –5°C (23°F) to +45°C (113°F) when optical modules with transmission distances greater than or equal to 60 km are used.
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	• AC input: 100 V AC to 240 V AC, 50/60 Hz • High-voltage DC input: 240 V DC
Input voltage range [V]	• AC input: 90 V AC to 290 V AC; 45 Hz to 65 Hz • High-voltage DC input: 190 V DC to 290 V DC
Maximum input current [A]	6 A
Memory	2 GB
Flash memory	Physical space: 1 GB
Console port	RJ45
Eth Management port	Not supported
USB	Not supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	Differential mode: ±6 kV; common mode: ±6 kV

Item	Specification
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left and air exhaust from right
PoE	Supported
Certification	EMC certification Safety certification Manufacturing certification

4.8 S530

4.8.1 S530-24T4XE

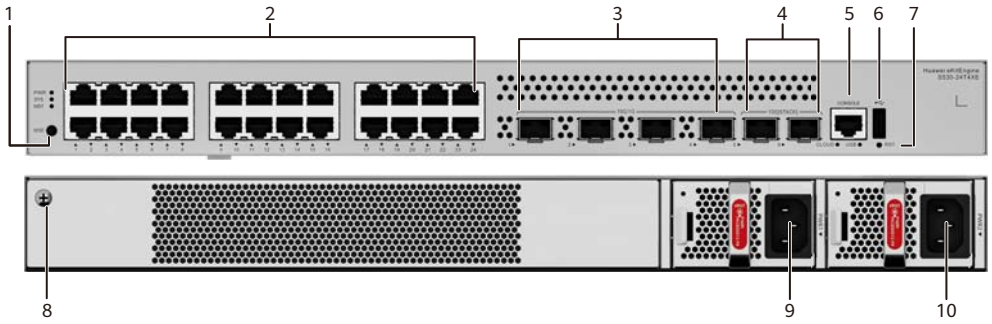
Overview

Table 4-132 Basic information about the S530-24T4XE

Item	Details
Description	S530-24T4XE(24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, 2*12GE stack ports, with 1*AC power module)
Part Number	98012554
Model	S530-24T4XE
First supported version	V600R023C10SPC600

Components

Figure 4-45 S530-24T4XE appearance



1	One MODE button	2	Twenty-four 10/100/1000BASE-T ports
3	Four 10GE SFP+ ports	4	Two stack ports **NOTE** These stack ports are available only in CLI-based O&M scenarios.
5	One console port	6	One USB port
7	One RST button **NOTICE** To restore the factory settings and reset the device, hold down the button for at least 6 seconds. To reset the device, press the button. Resetting the device will cause service interruption. Exercise caution when you press the button.	8	Ground screw **NOTE** It is used with a **ground cable**.
9	Power module slot 1 **NOTE** Applicable power modules: • **PAC180S12-CN** • **PDC1K2S12-CE** • **PAC80S12-CN** • **PAC600S12-PB**	10	Power module slot 2 **NOTE** Applicable power modules: • **PAC180S12-CN** • **PDC1K2S12-CE** • **PAC80S12-CN** • **PAC600S12-PB**

Ports

Table 4-133 Ports on the S530-24T4XE

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	**Ethernet cable**
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	• **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module** • **10GE SFP+ optical modules** • **10GE-CWDM SFP+ optical modules** • **10GE-DWDM SFP+ optical modules** • **1 m and 3 m SFP+ high-speed copper cables** • **10 m SFP+ AOC cables** • **0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)**

Port	Connector Type	Description	Available Components
Stack port	SFP+	A stack port connects multiple switches through stack cables and virtualize them into one switch logically. It is used only in stacking scenarios and does not need to be configured. In a stack, the working rate of a single port is increased to 12 Gbit/s by default. These stack ports are available only in CLI-based O&M scenarios.	• 1 m SFP+ high-speed copper cables • 0.5 m and 1.5 m SFP+ dedicated stack cables
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
USB port	USB 2.0 Type A	The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0. USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor.	USB flash drive

Indicators and Buttons

Figure 4-46 Indicators on the Switch

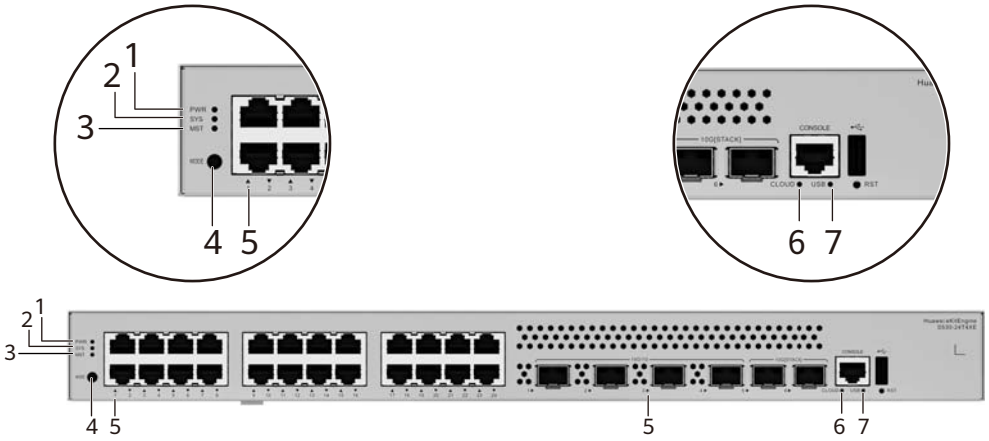


Table 4-134 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The power supply is normal.
			Yellow	Steady on	The switch has multiple power modules installed. Any of the following situations occurs in a power module slot: • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.

No.	Indicator	Name	Color	Status	Description
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	MST	Stack indicator	-	Off	• If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. • If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	• If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. • If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator	Name	Color	Status	Description
4	MODE	Mode switch button	-	-	• When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. • When you press this button a second time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode.
5	-	Service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see **Table 4-135**. **NOTE** If a power failure occurs on a device's PCB board, indicators of the last four GE or 10GE optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.
6	CLOUD	Cloud indicator	-		This indicator is reserved.
7	USB	USB-based deployment indicator	-	Off	No USB flash drive is installed, or the indicator fails.
			Green	Steady on	USB-based deployment succeeds. If there is no deployment configuration file, deployment will be repeatedly performed. In this case, the indicator is also steady green.
			Green	Blinking	USB-based deployment is in progress.
			Red	Steady on	USB-based deployment fails.

Table 4-135 Description of service port indicators in different modes (one indicator for each port)

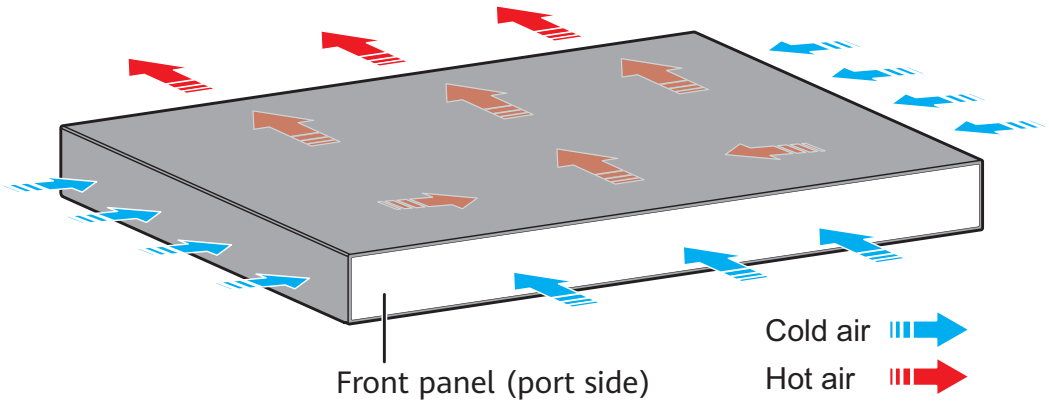
Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. If the indicator of a port is steady on, the number of this port is the stack ID of the switch.
	Green	Blinking	The switch is the master switch in a stack. If the indicator of a port is blinking, the number of this port is the stack ID of the switch.

Power Supply System

The switch can use a single power module or two power modules for 1+1 power redundancy. The power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation System

The switch has one built-in fan for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-136 Technical specifications of the S530-24T4XE

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.40 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 446.0 mm (1.72 in. x 17.40 in. x 17.56 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185.0 mm x 650.0 mm x 550.0 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	5.4 kg (11.9 lb)
Weight with packaging [kg(lb)]	7.3 kg (16.09 lb)
Typical power consumption [W]	26.20 W
Typical heat dissipation [BTU/hour]	89.40 BTU/hour
Maximum power consumption [W]	• 33.10 W (with two 80 W AC power modules) • 45.75 W (with two 180 W AC power modules) • 85.20 W (with two 1200 W DC power modules)
Maximum heat dissipation [BTU/hour]	• 112.94 (with two 80 W AC power modules) • 156.10 (with two 180 W AC power modules) • 290.71 (with two 1200 W DC power modules)
Static power consumption [W]	23.2 W
MTBF [years]	168.93 years
MTTR [hours]	2 hours

Item	Specification
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	47 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	35 dB(A)
Number of card slots	0
Number of power slots	2
Number of fans modules	1
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Redundant power supply	1+1 Power modules without fans and power modules with fans cannot be installed in the same chassis.
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	• AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 240 V DC • DC input: –48 V DC to –60 V DC

Item	Specification
Input voltage range [V]	• AC input: 90 V AC to 290 V AC; 45–65 Hz • High-voltage DC input: 190 V DC to 290 V DC • DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.
Memory	2 GB
Flash memory	Physical space: 1 GB
Console port	RJ45
Eth Management port	Not supported
USB	Supported
RTC	Not supported
RPS input	Not supported
Service port surge protection [kV]	Common mode: ±7 kV
Power supply surge protection [kV]	• Configured with AC power modules: ±6 kV in differential mode and ±6 kV in common mode • Configured with DC power modules: ±2 kV in differential mode and ±4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left, front, and right and air exhaust from rear
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.8.2 S530-24ST4XE

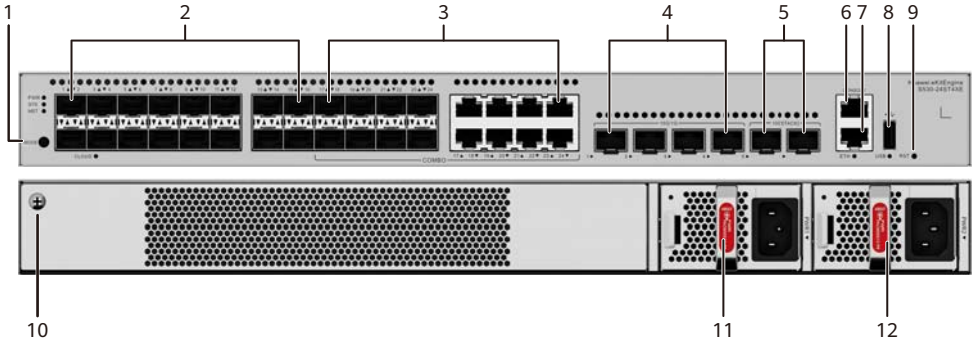
Overview

Table 4-137 Basic information about the S530-24ST4XE

Item	Details
Description	S530-24ST4XE(24*GE SFP ports, 8 of which are dual-purpose 10/100/1000 or SFP, 4*10GE SFP+ ports, 2*12GE stack ports, with 1*AC power module)
Part Number	98012556
Model	S530-24ST4XE
First supported version	V600R023C10SPC600

Components

Figure 4-47 S530-24ST4XE appearance



1	One MODE button	2	Sixteen 100/1000BASE-X ports
3	Eight Combo ports (100/1000BASE-X optical ports and 10/100/1000BASE-T electrical ports)	4	Four 10GE SFP+ ports
5	Two stack ports **NOTE** These stack ports are available only in CLI-based O&M scenarios.	6	One console port
7	One ETH management port	8	One USB port

9	One RST button **NOTICE** To restore the factory settings and reset the device, hold down the button for at least 6 seconds. To reset the device, press the button. Resetting the device will cause service interruption. Exercise caution when you press the button.	10	Ground screw **NOTE** It is used with a **ground cable**.
11	Power module slot 1 **NOTE** Applicable power modules: • **PAC180S12-CN** • **PDC1K2S12-CE** • **PAC80S12-CN** • **PAC600S12-PB**	12	Power module slot 2 **NOTE** Applicable power modules: • **PAC180S12-CN** • **PDC1K2S12-CE** • **PAC80S12-CN** • **PAC600S12-PB**

Ports

Table 4-138 Ports on the S530-24ST4XE

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	A 100/1000BASE-X port can send and receive data at 100/1000 Mbit/s.	• **FE SFP/eSFP optical modules** • **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module**

Port	Connector Type	Description	Available Components
Combo port (10/100/1000BASE-T + 100/1000BASE-X)	RJ45/SFP	A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.	• **Ethernet cable** • **FE SFP/eSFP optical modules** • **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules**

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	• **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module** • **10GE SFP+ optical modules** • **10GE-CWDM SFP+ optical modules** • **10GE-DWDM SFP+ optical modules** • **1 m, 2 m, and 3 m SFP+ high-speed copper cables** • **10 m SFP+ AOC cables** • **0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)**

Port	Connector Type	Description	Available Components
Stack port	SFP+	A stack port connects multiple switches through stack cables and virtualize them into one switch logically. It is used only in stacking scenarios and does not need to be configured. In a stack, the working rate of a single port is increased to 12 Gbit/s by default. These stack ports are available only in CLI-based O&M scenarios.	• 1 m SFP+ high-speed copper cables • 0.5 m and 1.5 m SFP+ dedicated stack cables
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
ETH management port	RJ45	You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0. USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor.	USB flash drive

Indicators and Buttons

Figure 4-48 Indicators on the Switch

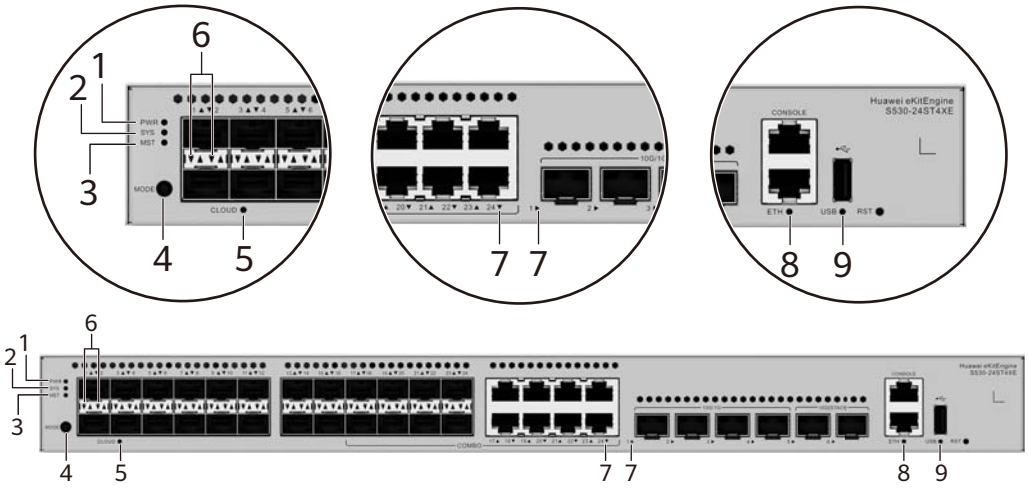


Table 4-139 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The power supply is normal.
			Yellow	Steady on	The switch has multiple power modules installed. Any of the following situations occurs in a power module slot: ● A power module is available in this slot but it is not connected to a power source. ● The power module in this slot has failed.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	MST	Stack indicator	-	Off	● If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. ● If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.

No.	Indicator	Name	Color	Status	Description
			Green	Blinking	• If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. • If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	MODE	Mode switch button	-	-	• When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. • When you press this button a second time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode.
5	CLOUD	Cloud indicator	-		This indicator is reserved.

No.	Indicator	Name	Color	Status	Description
6	-	Optical service port indicator (two indicators for each port)	Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		Meanings of service port indicators vary in different modes. For details, see **Table 4-140** and **Table 4-141**. **NOTE** If a power failure occurs on a device's PCB board, indicators of the last four GE or 10GE optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.
7	-	Electrical or optical service port indicator (one indicator for each port)	Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.		
8	ETH	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
9	USB	USB-based deploym	-	Off	No USB flash drive is installed, or the indicator fails.

No.	Indicator	Name	Color	Status	Description
		ent indicator	Green	Steady on	USB-based deployment succeeds. If there is no deployment configuration file, deployment will be repeatedly performed. In this case, the indicator is also steady green.
			Green	Blinking	USB-based deployment is in progress.
			Red	Steady on	USB-based deployment fails.

Table 4-140 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.

Table 4-141 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.
MST stack mode (LINK indicator)	-	Off	Port indicators do not show the stack ID of the switch.

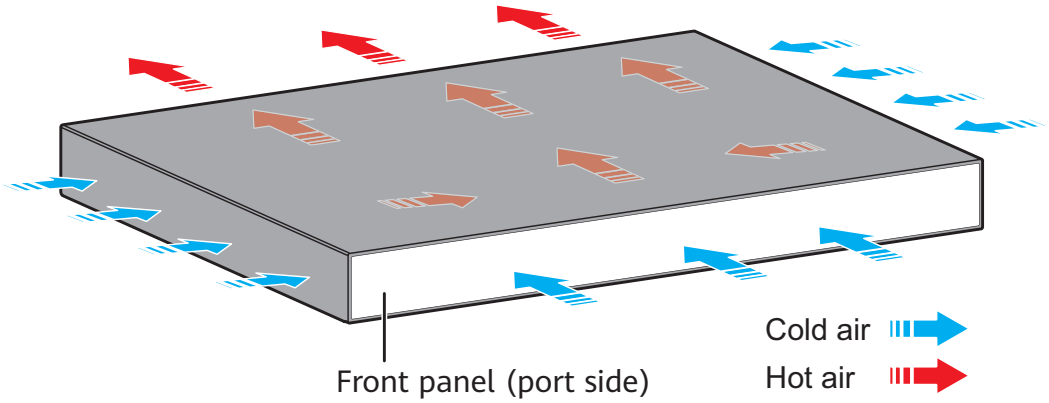
Display Mode	Color	Status	Description
	Green	Steady on	The switch is not the master switch in a stack. If the indicator of a port is steady on, the number of this port is the stack ID of the switch.
	Green	Blinking	The switch is the master switch in a stack. If the indicator of a port is blinking, the number of this port is the stack ID of the switch.
MST stack mode (ACT indicator)	-	Off	Port indicators do not show the stack ID of the switch.

Power Supply System

The switch can use a single power module or two power modules for 1+1 power redundancy. The power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-142 Technical specifications of the S530-24ST4XE

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.40 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 446.0 mm (1.72 in. x 17.40 in. x 17.56 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185.0 mm x 650.0 mm x 550.0 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	5.6 kg (12.35 lb)
Weight with packaging [kg(lb)]	7.4 kg (16.31 lb)
Typical power consumption [W]	31.6 W
Typical heat dissipation [BTU/hour]	107.82 BTU/hour
Maximum power consumption [W]	• 48.70 W (with two 80 W AC power modules) • 85.78 W (with two 1200 W DC power modules)
Maximum heat dissipation [BTU/hour]	• 166.17 (with two 80 W AC power modules) • 292.69 (with two 1200 W DC power modules)
Static power consumption [W]	14 W
MTBF [years]	112.03 years
MTTR [hours]	2 hours
Availability	> 0.99999
Noise at normal temperature (acoustic power) [dB(A)]	38.1 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	26.1 dB(A)
Number of card slots	0

Item	Specification
Number of power slots	2
Number of fans modules	2
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Redundant power supply	1+1 Power modules without fans and power modules with fans cannot be installed in the same chassis.
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	• AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 240 V DC • DC input: –48 V DC to –60 V DC
Input voltage range [V]	• AC input: 90 V AC to 290 V AC; 45–65 Hz • High-voltage DC input: 190 V DC to 290 V DC • DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.

Item	Specification
Memory	2 GB
Flash memory	Physical space: 1 GB
Console port	RJ45
Eth Management port	Supported
USB	Supported
RTC	Not supported
RPS input	Not supported
Power supply surge protection [kV]	• Configured with AC power modules: ±6 kV in differential mode and ±6 kV in common mode • Configured with DC power modules: ±2 kV in differential mode and ±4 kV in common mode
Ingress protection level (dustproof/ waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left, front, and right and air exhaust from rear
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification

4.8.3 S530-48S4XE

Overview

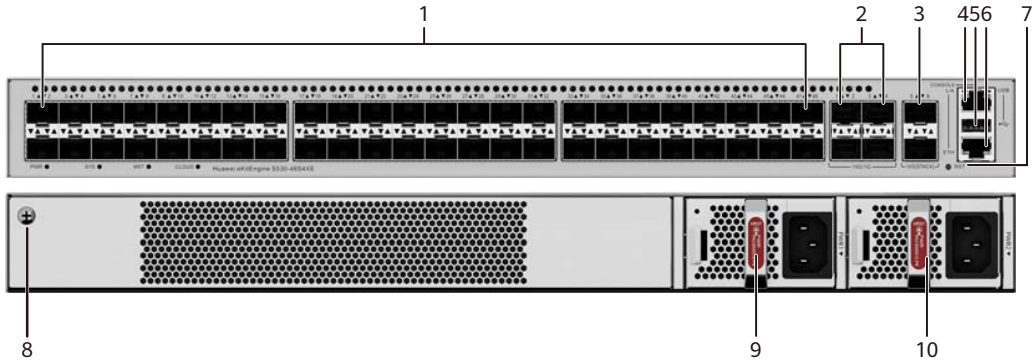
Table 4-143 Basic information about the S530-48S4XE

Item	Details
Description	S530-48S4XE(48*GE SFP ports, 4*10GE SFP+ ports, 2*12GE stack ports, with 1*AC power module)

Item	Details
Part Number	98012558
Model	S530-48S4XE
First supported version	V600R023C10SPC600
Remarks	• When 1000BASE-X Ethernet optical ports use 25 or more GE optical modules with a distance of 40 km or longer, a power module with a minimum power of 180 W is required. • The 1000BASE-X Ethernet optical ports can use a maximum of 24 copper modules at the same time.

Components

Figure 4-49 S530-48S4XE appearance



1	Forty-eight 100/1000BASE-X ports	2	Four 10GE SFP+ ports
3	Two stack ports **NOTE** These stack ports are available only in CLI-based O&M scenarios.	4	One console port
5	One USB port	6	One ETH management port

7	One RST button **NOTICE** To restore the factory settings and reset the device, hold down the button for at least 6 seconds. To reset the device, press the button. Resetting the device will cause service interruption. Exercise caution when you press the button.	8	Ground screw **NOTE** It is used with a **ground cable**.
9	Power module slot 1 **NOTE** Applicable power modules: • **PAC180S12-CN** • **PDC1K2S12-CE** • **PAC80S12-CN** • **PAC600S12-PB** When 1000BASE-X Ethernet optical ports use 25 or more GE optical modules with a distance of 40 km or longer, a power module with a minimum power of 180 W is required.	10	Power module slot 2 **NOTE** Applicable power modules: • **PAC180S12-CN** • **PDC1K2S12-CE** • **PAC80S12-CN** • **PAC600S12-PB** When 1000BASE-X Ethernet optical ports use 25 or more GE optical modules with a distance of 40 km or longer, a power module with a minimum power of 180 W is required.

Ports

Table 4-144 Ports on the S530-48S4XE

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	A 100/1000BASE-X port can send and receive data at 100/1000 Mbit/s.	• **FE SFP/eSFP optical modules** • **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module**

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	• **GE eSFP optical modules** • **GE-CWDM eSFP optical modules** • **GE-DWDM eSFP optical modules** • **GE SFP copper module** • **10GE SFP+ optical modules** • **10GE-CWDM SFP+ optical modules** • **10GE-DWDM SFP+ optical modules** • **1 m, 2 m, and 3 m SFP+ high-speed copper cables** • **10 m SFP+ AOC cables** • **0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)**

Port	Connector Type	Description	Available Components
Stack port	SFP+	A stack port connects multiple switches through stack cables and virtualize them into one switch logically. It is used only in stacking scenarios and does not need to be configured. In a stack, the working rate of a single port is increased to 12 Gbit/s by default. These stack ports are available only in CLI-based O&M scenarios.	• 1 m SFP+ high-speed copper cables • 0.5 m and 1.5 m SFP+ dedicated stack cables
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
ETH management port	RJ45	You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0. USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor.	USB flash drive

Indicators and Buttons

Figure 4-50 Indicators on the Switch

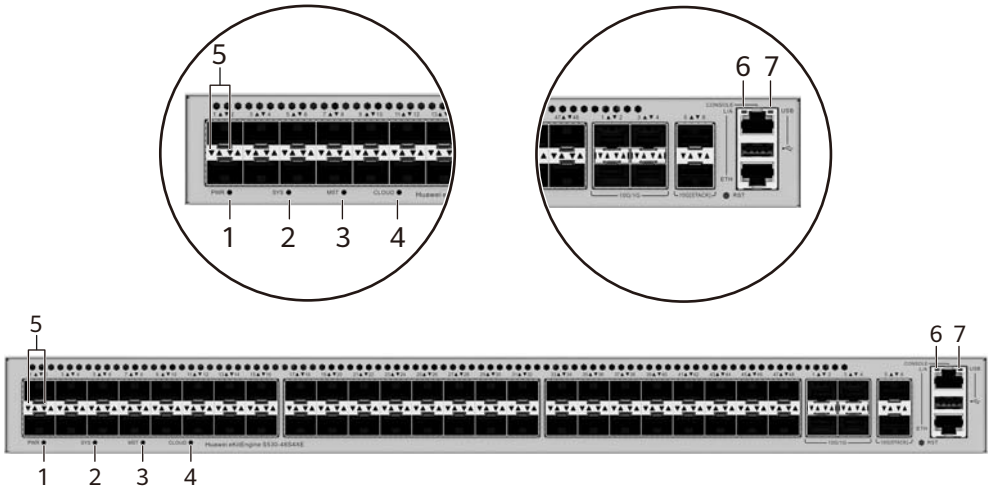


Table 4-145 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The power supply is normal.
			Yellow	Steady on	The switch has multiple power modules installed. Any of the following situations occurs in a power module slot: ● A power module is available in this slot but it is not connected to a power source. ● The power module in this slot has failed.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	MST	Stack indicator	-	Off	The switch is not the master switch in a stack.
			Green	Blinking	The switch is the master switch in a stack or a standalone switch.
4	CLOUD	Cloud indicator	-		This indicator is reserved.

No.	Indicator	Name	Color	Status	Description
5	-	Service port indicator (two indicators for each port) **NOTE** Each optical port has two single-color indicators. The one on the left is the ACT indicator (yellow), and the one on the right is the LINK indicator (green). Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.			Meanings of service port indicators vary in different modes. For details, see **Table 4-146**. **NOTE** If a power failure occurs on a device's PCB board, indicators of the last four GE or 10GE optical ports on the device's front panel blink green cyclically at an interval of 1 second, with each indicator illuminating for 0.25 seconds.
6	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
7	USB	USB-based deployment indicator	-	Off	No USB flash drive is installed, or the indicator fails.
			Green	Steady on	USB-based deployment succeeds. If there is no deployment configuration file, deployment will be repeatedly performed. In this case, the indicator is also steady green.
			Green	Blinking	USB-based deployment is in progress.
			Red	Steady on	USB-based deployment fails.

Table 4-146 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Default mode (LINK indicator)	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.

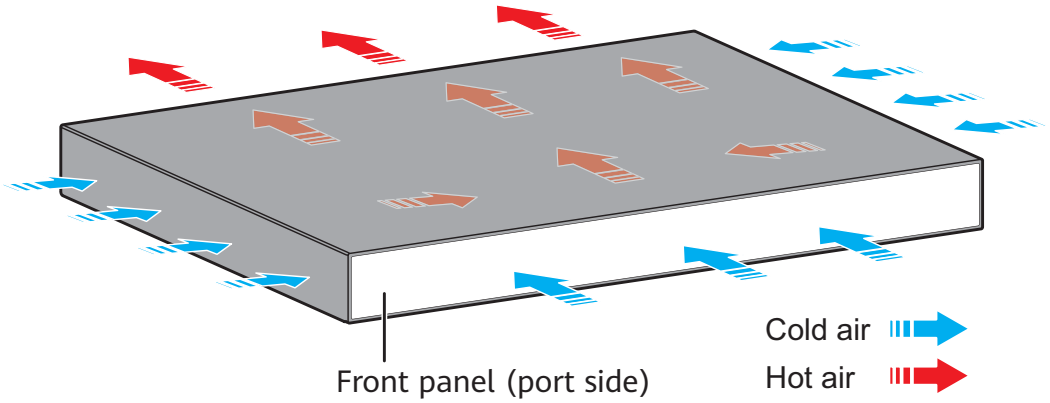
Display Mode	Color	Status	Description
Default mode (ACT indicator)	-	Off	The port is not connected or has been shut down, or no data is transmitted or received.
	Yellow	Blinking	The port is sending or receiving data.

Power Supply System

The switch can use a single power module or two power modules for 1+1 power redundancy. The power modules with natural heat dissipation and the power modules with fan cannot be used at the same time.

Heat Dissipation System

The switch has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 4-147 Technical specifications of the S530-48S4XE

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.40 in. x 16.54 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 446.0 mm (1.72 in. x 17.40 in. x 17.56 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	185.0 mm x 650.0 mm x 550.0 mm (7.28 in. x 25.59 in. x 21.65 in.)
Chassis height [U]	1 U
Chassis material	Metal
Weight without packaging [kg(lb)]	6.0 kg (13.23 lb)
Weight with packaging [kg(lb)]	7.9 kg (17.42 lb)
Typical power consumption [W]	72.3 W
Typical heat dissipation [BTU/hour]	246.69 BTU/hour
Maximum power consumption [W]	• 96.40 W (with two 80 W AC power modules) • 104.70 W (with two 180 W AC power modules) • 130.05 W (with two 1200 W DC power modules)
Maximum heat dissipation [BTU/hour]	• 328.93 (with two 80 W AC power modules) • 357.25 (with two 180 W AC power modules) • 443.74 (with two 1200 W DC power modules)
Static power consumption [W]	31.5 W
MTBF [years]	78.95 years
MTTR [hours]	2 hours
Availability	> 0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	43.8 dB(A)
Noise at normal temperature (acoustic pressure) [dB(A)]	31.80 dB(A)
Number of card slots	0
Number of power slots	2
Number of fans modules	2
Switching capacity	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Packet forwarding rate	To obtain data of this specification item, see the corresponding datasheet or contact the product sales personnel.
Redundant power supply	1+1 Power modules without fans and power modules with fans cannot be installed in the same chassis.
Long-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5905.44 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	When the altitude is 1800–5000 m (5906–16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). Devices cannot start when the temperature is lower than 0°C (32°F).
Storage temperature [°C(°F)]	–40°C to +70°C (–40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH (non-condensing)
Long-term operating altitude [m(ft.)]	0–5000 m (0–16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	• AC input: 100 V AC to 240 V AC; 50/60 Hz • High-voltage DC input: 240 V DC • DC input: –48 V DC to –60 V DC

Item	Specification
Input voltage range [V]	• AC input: 90 V AC to 290 V AC; 45–65 Hz • High-voltage DC input: 190 V DC to 290 V DC • DC input: -38.4 V DC to -72 V DC
Maximum input current [A]	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.
Memory	2 GB
Flash memory	Physical space: 1 GB
Console port	RJ45
Eth Management port	Supported
USB	Supported
RTC	Not supported
RPS input	Not supported
Power supply surge protection [kV]	• Configured with AC power modules: ±6 kV in differential mode and ±6 kV in common mode • Configured with DC power modules: ±2 kV in differential mode and ±4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation mode	Air cooling for heat dissipation, intelligent fan speed adjustment
Airflow direction	Air intake from left, front, and right and air exhaust from rear
PoE	Not supported
Certification	EMC certification Safety certification Manufacturing certification