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## Chapter 1 Introduction

### 1.1 Product Brief

S5750E-28X-SI/S5750E-28P-SI switch:


Fig 1-1 S5750E-28X-SI/S5750E-28P-SI switch

S5750E-52X-SI switch:


Fig 1-2 S5750E-52X-SI switch

S5750E-52P-SI switch:


Fig 1-3 S5750E-52P-SI switch

S5750E-28P-P-SI switch:


Fig 1-4 S5750E-28P-P-SI switch
S5750E-28X-SI-24F-D switch:


Fig 1-5 S5750E-28X-SI-24F-D switch
S5750E-10P-P-SI switch


Fig 1-6 S5750E-10P-P-SI switch
S5750E-28X-P-SI switch


Fig 1-7 S5750E-28X-P-SI switch
S5750E-52X-P-SI switch

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Fig 1-8 S5750E-52X-P-SI switch
S5750E-16X-SI switch


Fig 1-9 S5750E-16X-SI switch

### 1.1.1 Introduction

S5750E series switches are uplink layer 2 switches. S5750E-28P-SI has 28 fixed ports (24 10/100/1000Base-T fixed ports and 4 1000Mb SFP ports). S5750E-28X-SI has 28 fixed ports (24 10/100/1000Base-T fixed ports and 4 10Gb SFP+ ports). S5750E-52P-SI has 52 fixed ports ( 48 10/100/1000Base-T fixed ports and 4 1000Mb SFP ports). S5750E-52X-SI has 52 fixed ports (48 10/100/1000Base-T fixed ports and 4 10000Mb SFP+ ports). S5750E-28P-P-SI has 28 fixed ports (24 10/100/1000Base-T fixed ports and 4 1000Mb SFP ports), support 241000 M ports power supply. S5750E-28X-SI-24F-D has 28 fixed ports ( 24 1000Mb SFP ports, 4 combo ports, and 4 10000Mb SFP+ ports ), S5750E-10P-P-SI has 10 fixed ports (8 10/100/1000Base-T fixed ports and 2 1000BASE-X ports), support 8 1000M ports power supply. S5750E-28X-P-SI has 28 fixed ports (24 10/100/1000Base-T fixed ports and 4 10Gb SFP+ ports), support 24

1000M ports PoE power supply; S5750E-52X-P-SI has 52 fixed ports (48 10/100/1000Base-T fixed ports, 2 10Gb SFP+ ports and 2 1000M SFP ports), support 48 1000M ports PoE power supply. S5750E-16X-SI has 16 SFP+ port. S5750E series switches can serve ideally as distribution layer switches for the 10Gb input device of campus networks, enterprise networks and IP metropolitan networks. S5750E-16X-SI is also used in the Internet bar as the full 10Gb convergence device.

### 1.2 Physical Specifications

- Management Port

1 RJ-45 serial console port
1 RJ-45 management Ethernet interface
1 USB interface which supports USB2.0 (S5750E-16X-SI)

- AC/DC Power Input

AC: $90 \sim 264 \mathrm{VAC}, 47 \sim 63 \mathrm{~Hz}$
DC: -48VDC, 2.5A (S5750E-16X-SI)

- Power Consumption

S5750E-28X-SI: <20W
S5750E-52X-SI: <60W
S5750E-28P-SI: <20W
S5750E-52P-SI: <60W
S5750E-28P-P-SI: 33W to 370W
S5750E-28X-SI-24F-D: 26W
S5750E-10P-P-SI: <149.4W
S5750E-28X-P-SI: 37W to 390W
S5750E-52X-P-SI: 37W to 780W
S5750E-16X-SI: 12W to 24W

- Operating Temperature
$-5^{\circ} \mathrm{C} \sim 50^{\circ} \mathrm{C}$
- Storage Temperature
$-40^{\circ} \mathrm{C} \sim 70^{\circ} \mathrm{C}$
- Relative Humidity

5\% ~ 95\%, no condensate

- Dimension

S5750E-28X-SI: $440 \mathrm{~mm} \times 43.6 \mathrm{~mm} \times 223 \mathrm{~mm}(\mathrm{~W}$ * H * D)
S5750E-28P-SI: $442 \mathrm{~mm} \times 43.6 \mathrm{~mm} \times 220 \mathrm{~mm}(\mathrm{~W} * \mathrm{H} * \mathrm{D})$
S5750E-52X-SI: $442 \mathrm{~mm} \times 43.6 \mathrm{~mm} \times 280 \mathrm{~mm}(\mathrm{~W} * \mathrm{H}$ * D)
S5750E-52P-SI: $442 \mathrm{~mm} \times 43.6 \mathrm{~mm} \times 280 \mathrm{~mm}(\mathrm{~W} * \mathrm{H} * \mathrm{D})$
S5750E-28P-P-SI: $442 \mathrm{~mm} \times 43.6 \mathrm{~mm} \times 329 \mathrm{~mm}\left(\mathrm{~W} * \mathrm{H}^{*} \mathrm{D}\right)$
S5750E-28X-SI-24F-D: $442 \mathrm{~mm} \times 43.6 \mathrm{~mm} \times 220 \mathrm{~mm}(\mathrm{~W} * \mathrm{H}$ * D)
S5750E-10P-P-SI: $320 \mathrm{~mm} \times 43.6 \mathrm{~mm} \times 220 \mathrm{~mm}(\mathrm{~W} * \mathrm{H}$ * D)
S5750E-28X-P-SI: $442 \mathrm{~mm} \times 43.6 \mathrm{~mm} \times 329 \mathrm{~mm}(\mathrm{~W}$ * H * D)

```
    S5750E-52X-P-SI: 442mm\times43.6mm\times329mm (W * H * D)
    S5750E-16X-SI: 440mm\times43.6mm\times240mm (W * H * D)
| Weight
    S5750E-28X-SI: 2.33\pm0.1kg
    S5750E-28P-SI: 2.33\pm0.1kg
    S5750E-52X-SI: 3.80\pm0.1kg
    S5750E-52P-SI: 3.90\pm0.1kg
    S5750E-28P-P-SI: 5.50\pm0.1kg
    S5750E-28X-SI-24F-D: 2.90\pm0.1kg
    S5750E-10P-P-SI: < 3kg
    S5750E-28X-P-SI: 5.50\pm0.1kg
    S5750E-52X-P-SI: 6.30\pm0.1kg
    S5750E-16X-SI: About 3.14kg
■ Mean time between failure
    Minimal MTBF: 50,000 hours
```


### 1.3 Description of Hardware

### 1.3.1 Front Panel

S5750E-28P-SI has 24 10/100/1000Base-T ports, 4 1000Mb SFP ports, 1 Console port, 1 management Ethernet interface, 1 system reset button, 30 LEDs, 1 220V AC power socket and 1 ground screw hole.

The front panel of S5750E-28P-SI is shown below:


Fig 1-10 Front Panel of S5750E-28P-SI
S5750E-28X-SI has 24 10/100/1000Base-T ports, 4 10Gb SFP+ ports, 1 Console port, 1 management Ethernet interface, 1 system reset button, 30 LEDs, 1220 V AC power socket and 1 ground screw hole.

The front panel of S5750E-28X-SI is shown below:


Fig 1-11 Front Panel of S5750E-28X-SI
S5750E-52P-SI has 48 10/100/1000Base-T ports, 4 1000Mb SFP ports, 1 Console port, 1 management Ethernet interface, 1 system reset button, 54 LEDs, 1 220V AC power socket and 1 ground screw hole.

The front panel of S5750E-52P-SI is shown below:


Fig 1-12 Front Panel of S5750E-52P-SI

S5750E-52X-SI has 48 10/100/1000Base-T ports, 4 10Gb SFP+ ports, 1 Console port, 1 management Ethernet interface, 1 system reset button, 54 LEDs, 1 220V AC power socket and 1 ground screw hole.

The front panel of S5750E-52X-SI is shown below:


Fig 1-13 Front Panel of S5750E-52X-SI
S5750E-28P-P-SI has 24 10/100/1000Base-T ports, 4 1000Mb SFP ports, 1 Console port, 1 management Ethernet interface, 1 system reset button, 1 POE buttons, 30 LEDs, 1 220 V AC power socket and 1 ground screw hole.

The front panel of S5750E-28P-SI is shown below:


Fig 1-14 Front Panel of S5750E-28P-SI
S5750E-28X-SI-24F-D has 24 1000Mb SFP ports, 4 Combo ports, 4 10000M SFP+ ports, 1 Console port, 1 management Ethernet interface, 1 system reset button, 34 LEDs, 1 48V DC power socket, 1 220V AC power socket and 1 ground screw hole.

The front panel of S5750E-28X-SI-24F-D is shown below:


Fig 1-15 Front Panel of S5750E-28X-SI-24F-D
S5750E-10P-P-SI has 8 10/100/1000Base-T ports, 2 1000Mb SFP ports, 1 system reset button, 1 POE buttons, 11 LEDs.

The front panel of S5750E-10P-P-SI is shown below:


Fig 1-16 Front Panel of S5750E-10P-P-SI

S5750E-28X-P-SI has 24 10/100/1000Base-T ports, 4 10G SFP+ ports, 1 Console port, 1 management Ethernet interface, 1 system reset button, 1 POE button and 30 LEDs.

The front panel of S5750E-28X-P-SI is shown below:


Fig 1-17 Front Panel of S5750E-28X-P-SI
S5750E-52X-P-SI has 48 10/100/1000Base-T ports, 2 10G SFP+ ports, 2 1000M SFP ports, 1 Console port, 1 management Ethernet interface, 1 system reset button, 1 POE button and 54 LEDs.

The front panel of S5750E-52X-P-SI is shown below:

##  <br> den 

Fig 1-18 Front Panel of S5750E-52X-P-SI

S5750E-16X-SI has 16 10Gb SFP+ ports, 1 Console port, 1 management Ethernet interface, 1 system reset button, 1 USB interface and 19 LEDs.

The front panel of S5750E-16X-SI is shown below:


Fig 1-19 Front Panel of S5750E-16X-SI

### 1.3.2 Back Panel

The back panel of S5750E-28P-SI/S5750E-28X-SI is shown below:


Fig 1-20 Back Panel of S5750E-28P-SI/S5750E-28X-SI

The back panel of S5750E-52P-SI/S5750E-52X-SI/S5750E-28P-P-SI is shown below, there is 1220 V AC power socket and 1 ground screw hole.


Fig 1-21 Back Panel of S5750E-52P-SI/S5750E-52X-SI/S5750E-28P-P-SI

The back panel of S5750E-28X-SI-24F-D is shown below.


Fig 1-22 Back Panel of S5750E-28X-SI-24F-D

The back panel of S5750E-10P-P-SI is shown below, there is 1220 V AC power socket and 1 ground screw hole.


Fig 1-23 Back Panel of S5750E-10P-P-SI
The back panel of S5750E-28X-P-SI is shown below, there is an air outlet, 1220 V AC power socket and 1 ground screw hole.


Fig 1-24 Back Panel of S5750E-28X-P-SI

The back panel of S5750E-52X-P-SI is shown below, there is two air outlets, 1220 V AC power socket and 1 ground screw hole.


Fig 1-25 Back Panel of S5750E-52X-P-SI

The back panel of S5750E-16X-SI is shown below, there is a fan, 1220 V AC power socket, 1 -48V DC power socket and 1 ground screw hole.


Fig 1-26 Back Panel of S5750E-16X-SI

### 1.3.3 Status LEDs

S5750E switches include port indications, system status indication and fan indication. Their status meanings are shown below.

### 1.3.3.1 Port indication Description



Fig 1-27 S5750E-28P-SI LED diagram
Table 1-1 S5750E-28P-SI port indications description

| Panel Symbol | Status | Description |
| :--- | :--- | :--- |
| Port1-24(Link/Act) | On (Green) | ports are in successful link state |
|  | Flash(Green) | ports are in successful link state and <br> receive/send data |
|  | Off | ports are not in link |
| Port | On (Green) | SPF ports are in successful link state |


| $25 / 26 / 27 / 28($ Link/Act) | Flash (Green) | SPF ports are in successful link state and <br> receive/send data |
| :--- | :--- | :--- |
|  | Off | SPF ports are not in link |



Fig 1-28 S5750E-28X-SI LED diagram
Table 1-2 S5750E-28X-SI port indications description

| Panel Symbol | Status | Description |
| :--- | :--- | :--- |
| Port1-24(Link/Act) | On (Green) | ports are in successful link state |
|  | Flash(Green) | ports are in successful link state and <br> receive/send data |
|  | Off | ports are not in link |
|  | Olash (Green) | SPF+ ports are in successful link state and <br> receive/send data |
|  | Off | SPF+ ports are not in link |
|  | Oreen) |  |



Fig 1-29 S5750E-52P-SI LED diagram
Table 1-3 S5750E-52P-SI port indications description

| Panel Symbol | Status | Description |
| :--- | :--- | :--- |
| Port1-48(Link/Act) | On (Green) | ports are in successful link state |
|  | Flash(Green) | ports are in successful link state and <br> receive/send data |
|  | Off | ports are not in link |
|  | On (Green) | SPF ports are in successful link state |


| 49/50/51/52(Link/Act) | Flash (Green) | SPF ports are in successful link state and <br> receive/send data |
| :--- | :--- | :--- |
|  | Off | SPF ports are not in link |



Fig 1-30 S5750E-52X-SI LED diagram
Table 1-4 S5750E-52X-SI port indications description

| Panel Symbol | Status | Description |
| :--- | :--- | :--- |
| Port1-48(Link/Act) | On (Green) | ports are in successful link state |
|  | Flash(Green) | ports are in successful link state and <br> receive/send data |
|  | Off | ports are not in link |
|  | On (Green) | SPF+ ports are in successful link state |
|  | Ofeen) | SPF+ ports are in successful link state and <br> receive/send data |
|  | Off | SPF+ ports are not in link |



Fig 1-31 S5750E-28P-P-SI LED diagram
Table 1-5 S5750E-28P-P-SI port indications description

| Panel Symbol | Status | Description |
| :--- | :--- | :--- |
| Port1-24(Link/Act) | On (Green) | ports are in successful link state |
|  | Flash(Green) | ports are in successful link state and <br> receive/send data |
|  | Off | ports are not in link |
| Port | On (Green) | SPF ports are in successful link state |


| 25/26/27/28(Link/Act) | Flash (Green) | SPF ports are in successful link state and <br> receive/send data |
| :--- | :--- | :--- |
|  | Off | SPF ports are not in link |
| Port1-24 POE(Link/Act) | Flash (Green) | PD are in successful link state and <br> receive/send data |
|  | Off | PD are not in link |



Fig 1-32 S5750E-28X-SI-24F-D LED diagram

Table 1-6 S5750E-28X-SI-24F-D port indications description

| Panel Symbol | Status | Description |
| :--- | :--- | :--- |
| Port1-24(Link/Act) | On (Green) | ports are in successful link state |
|  | Flash(Green) | ports are in successful link state and <br> receive/send data |
|  | Off | ports are not in link |
|  | Flash (Green) | SPF ports are in successful link state and <br> receive/send data |
|  | Off | SPF ports are not in link |
|  | Offe in successful link state |  |
| Port211-24 (Link/Act) | Flash (Green) | ports are in successful link state and <br> receive/send data |
|  | Off | ports are not in link |



Fig 1-33 S5750E-10P-P-SI LED diagram
Table 1-7 S5750E-10P-P-SI port indications description

| Panel Symbol | Status | Description |
| :--- | :--- | :--- |
| Port1-8(Link/Act) | On (Green) | ports are in successful link state |
|  | Flash(Green) | ports are in successful link state and <br> receive/send data |
|  | Off | ports are not in link |
|  | On (Green) | SPF ports are in successful link state |
|  | Flash (Green) | SPF ports are in successful link state and <br> receive/send data |
|  | Off | SPF ports are not in link |
|  | On (Green) | PD is connected successfully |
|  | Flash (Green) | PD is connected successfully and <br> receive/send data |
|  | Off | PD is not connected |



Fig 1-34 S5750E-28X-P-SI LED diagram

Table 1-8 S5750E-28X-P-SI port indications description

| Panel Symbol | Status | Description |
| :--- | :--- | :--- |
| Port 1-24(Link/Act) | On (Green) | ports are in successful link state |
|  | Flash(Green) | ports are in successful link state and <br> receive/send data |
|  | Off | ports are not in link |
|  | On (Green) | ports are in successful link state |
|  | Flash(Green) | ports are in successful link state and <br> receive/send data |
|  | Off | ports are not in link |


|  | On (Green) | PD is connected successfully |
| :--- | :--- | :--- |
| Port 1-24 POE(Link/Act) | Flash(Green) | PD is connected successfully and <br> receive/send data |
|  | Off | PD is not connected |

# ry  

Fig 1-35 S5750E-52X-P-SI LED diagram

Table 1-9 S5750E-52X-P-SI port indications description

| Panel Symbol | Status | Description |
| :--- | :--- | :--- |
| Port 1-48(Link/Act) | On (Green) | ports are in successful link state |
|  | Flash(Green) | ports are in successful link state and <br> receive/send data |
|  | Off | ports are not in link |
|  | Flash(Green) | ports are in successful link state and <br> receive/send data |
|  | Off | ports are not in link |
|  | On (Green) | PD is connected successfully |
| Port 1-48 POE(Link/Act) | Flash(Green) | PD is connected successfully and <br> receive/send data |
|  | Off | PD is not connected |

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Fig 1-36 S5750E-52X-P-SI LED LED diagram

Table 1-10 S5750E-16X-SI port indications description

| Panel Symbol | Status | Description |
| :--- | :--- | :--- |
| Port 1-16(Link/Act) | On (Green) | ports are in successful link state |


|  | Flash(Green) | ports are in successful link state and <br> receive/send data |
| :--- | :--- | :--- |
|  | Off | ports are not in link |

### 1.3.3.2 System Status Indication Description



Fig 1-37 S5750E-28P-SI/ S5750E-28P-P-SI/ S5750E-28X-SI/ S5750E-28X-SI-24F-D/ S5750E-10P-P-SI/S5750E-28X-P-SI diagram

Table 1-11 system indication description

| Panel Symbol | Status | Description |
| :--- | :--- | :--- |
| Power | On (Green) | The internal power is operating normally |
|  | Off | Power is off or error |
|  | On (Green) | System is abnormal |
|  | Flash (Green) | System is in normal |
|  | Off | Power is off or system is abnormal |



Fig 1-38 S5750E-52X-SI/ S5750E-52P-SI/S5750E-52X-P-SI diagram

Table 1-12 system indication description

| Panel Symbol | Status | Description |
| :--- | :--- | :--- |
| Power | On (Green) | The internal power is operating normally |
|  | Off | Power is off or error |
|  | On (Green) | System is abnormal |
|  | Flash (Green) | System is in normal |
|  | Off | Power is off or system is abnormal |



Fig 1-39 S5750E-16X-SI diagram

Table 1-13 system indication description

| Panel Symbol | Status | Description |
| :--- | :--- | :--- |
| PWR | On (Green) | The internal power is operating normally |
|  | Off | Power is off or error |
|  | On (Green) | System is abnormal |
|  | Flash (Green) | System is in normal |
|  | Off | Power is off or system is abnormal |
| FAN | On (Red) | Fan is abnormal |
|  | Off | Fan is normal |

### 1.3.4 Front Panel Port Description

Each port description is shown below:
Table 1-12 S5750E switch port description

| Interface mode | Spec |
| :---: | :---: |
| RJ-45 port | - 10/100/1000Mbps auto negotiation <br> - MDI/MDI-X cable mode auto negotiation <br> - 5 kinds of UTP: 100 m |
| SFP | - SFP-SX-L transceiver <br> 1000Base-SX SFP (850nm, MMF, 550m) <br> - SFP-LX-L transceiver <br> 1000Base-LX SFP interface card module (1310nm, SMF, 10km or MMF, 550m) <br> - SFP-LX-20-L transceiver <br> 1310nm light waves, 9/125um single mode fiber: 20km <br> - SFP-LX-40 transceiver |


|  | 9/125um single mode fiber: 40 km <br> - SFP-LH-70-L transceiver 9/125um single mode fiber: 70 km <br> - SFP-LH-120-L transceiver 9/125um single mode fiber: 120 km |
| :---: | :---: |
| SFP+ | - SFPX-SR: <br> 62.5/125um multimode fiber: 32 m <br> $50.0 / 125 \mathrm{um}, 500 \mathrm{MHz} / \mathrm{km}$ multimode fiber: 85 m <br> 50.0/125um,2000MHz/km multimode fiber: 300 m <br> - SFPX-LR: <br> 9/125um single mode fiber: 10 km <br> - SFPX-ER: <br> 9/125um single mode fiber: 40km |
| DAC-SFPX | - DAC-SFPX-3M <br> - DAC-SFPX-5M |
| AOC-SFPX | - AOC-SFPX-5M <br> - AOC-SFPX-10M |

## Chapter 2 Hardware Installation

### 2.1 Installation Notice

To ensure the proper operation of S5750E series and your physical security, please read carefully the following installation guide.

### 2.1.1 Environmental Requirements

- The switch must be installed in a clean area. Otherwise, the switch may be damaged by electrostatic adherence.
- Maintain the temperature within 0 to $50^{\circ} \mathrm{C}$ and the humidity within $5 \%$ to $95 \%$, non-condensing.
■ The switch must be put in a dry and cool place. Leave sufficient spacing around the switch for good air circulation.
■ The switch must work in the right range of power input (AC power: 90~264VAC (47~ 63 Hz ))
- The switch must be well grounded in order to avoid ESD damage and physical injury of people.
- The switch should avoid the sunlight perpendicular incidence. Keep the switch away from heat sources and strong electromagnetic interference sources.
■ The switch must be mounted to a standard 19" rack or placed on a clean level desktop.


### 2.1.1.1 Dust and Particles

Dust is harmful to the safe operation of S5750E series. Dust can lead to electrostatic adherence, especially likely under low relative humidity, causing poor contact of metal connectors or contacts. Electrostatic adherence will result in not only reduced product lifespan, but also increased chance of communication failures. The recommended value for dust content and particle diameter in the site is shown below:

| Max Diameter $(\mu \mathrm{m})$ | 0.5 | 1 | 3 | 5 |
| :--- | :--- | :--- | :--- | :--- |
| Max Density <br> $\left(\right.$ particles $\left./ \mathrm{m}^{3}\right)$ | $1.4 \times 10^{7}$ | $7 \times 10^{5}$ | $2.4 \times 10^{5}$ | $1.3 \times 10^{5}$ |

Table 2-1Environmental Requirements: Dust

In addition, salt, acid and sulfide in the air are also harmful to the switch. Such harmful gases will aggravate metal corrosion and the aging of some parts. The site should avoid harmful gases, such as $\mathrm{SO}_{2}, \mathrm{H}_{2} \mathrm{~S}, \mathrm{NO}_{2}, \mathrm{NH}_{3}$ and $\mathrm{Cl}_{2}$, etc. The table below details the threshold value.

| Gas | Average $\left(\mathrm{mg} / \mathrm{m}^{3}\right)$ | $\operatorname{Max}\left(\mathrm{mg} / \mathrm{m}^{3}\right)$ |
| :--- | :--- | :--- |
| $\mathrm{SO}_{2}$ | 0.2 | 1.5 |
| $\mathrm{H}_{2} \mathrm{~S}$ | 0.006 | 0.03 |
| $\mathrm{NO}_{2}$ | 0.04 | 0.15 |
| $\mathrm{NH}_{3}$ | 0.05 | 0.15 |
| $\mathrm{Cl}_{2}$ | 0.01 | 0.3 |

Table 2-2 Environmental Requirements: Particles

### 2.1.1.2 Temperature and Humidity

The switch install site should maintain a desirable temperature and humidity. High-humidity conditions can cause electrical resistance degradation or even electric leakage, degradation of mechanical properties and corrosion of internal components. Extreme low relative humidity may cause the insulation spacer to contract, making the fastening screw insecure. Furthermore, in dry environments, static electricity is liable to be produced and cause harm to internal circuits. Temperature extremes can cause reduced reliability and premature aging of insulation materials, thus reducing the switch's working lifespan. In the hot summer, it is recommended to use air-conditioners to cool down the site. And the cold winter, it is recommenced to use heaters.

The recommended temperature and humidity is shown below:

| Temperature: |  | Relative humidity |  |
| :--- | :--- | :--- | :--- |
| Long term condition | Short term condition | Long term condition | Short <br> condition | term $\quad$|  |  | $40 \sim 65 \%$ | $5 \sim 95 \%$ |
| :--- | :--- | :--- | :--- |
| $15 \sim 30^{\circ} \mathrm{C}$ | $0 \sim 50^{\circ} \mathrm{C}$ |  |  |

Table 2-3 Environmental Requirements: Temperature and Humidity

## Caution!

A sample of ambient temperature and humidity should be taken at 1.5 m above the floor and 0.4 m in front of the switch rack, with no protective panel covering the front and rear of the rack. Short term working conditions refer to a maximum of 48 hours of continued operation and an annual cumulative total of less than 15 days. Formidable
operation conditions refers to the ambient temperature and relative humidity value that may occur during an air-conditioning system failure, and normal operation conditions should be recovered within 5 hours.

### 2.1.1.3 Power Supply

It is adopted module switch power for the switch; the input parameter of power is shown below:

The AC input voltage: 90~264VAC
The frequency: $47 \sim 63 \mathrm{~Hz}$
The DC input voltage: $12 \mathrm{~V} / 3.3 \mathrm{~A}$
Before powering on the power supply, please check the power input to ensure proper grounding of the power supply system. The input source for the switch should be reliable and secure; a voltage adaptor can be used if necessary. The building's circuit protection system should include in the circuit a fuse or circuit-breaker of no greater than $240 \mathrm{~V}, 10 \mathrm{~A}$. It is recommended to use a UPS for more reliable power supplying. .

## Caution!

Improper power supply system grounding, extreme fluctuation of the input source, and transients (or spikes) can result in larger error rate, or even hardware damage!

### 2.1.1.4 Preventing Electrostatic Discharge Damage

Static electric discharges can cause damage to internal circuits, even the entire switch. Follow these guidelines for avoiding ESD damage:
■ Ensure proper earth grounding of the device;

- Perform regular cleaning to reduce dust;
- Maintain proper temperature and humidity;
- Always wear an ESD wrist strap and antistatic uniform when in contact with circuit boards.


### 2.1.1.5 Anti-interference

All sources of interference, whether from the device/system itself or the outside environment, will affect operations in various ways, such as capacitive coupling, inductive coupling, electromagnetic radiation, common impedance (including the grounding system) and cables/lines (power cables, signal lines, and output lines). The following should be noted:
■ Precautions should be taken to prevent power source interruptions;
■ Provide the system with a dedicated grounding, rather than sharing the grounding
with the electronic equipment or lightning protection devices.

- Keep away from high power radio transmitters, radar transmitters, and high frequency strong circuit devices.
- Provide electromagnetic shielding if necessary.


### 2.1.1.6 Rack Configuration

The dimensions of the S5750E series are designed to be mounted on a standard 19" rack. The size is $442.9 \mathrm{~mm} \times 44 \mathrm{~mm} \times 230.2 \mathrm{~mm}(\mathrm{~W} * \mathrm{H} * \mathrm{D})$. Please ensure good ventilation for the rack.

- Every device in the rack will generate heat during operation, therefore vent and fans must be provided for an enclosed rack, and devices should not be stacked closely.
- When mounting devices in an open rack, care should be taken to prevent the rack frame from obstructing the switch ventilation openings. Be sure to check the positioning of the switch after installation to avoid the aforementioned.


## Caution!

If a standard 19 " rack is not available, the S5750E series can be placed on a clean level desktop, leave a clearance of 100 mm around the switch for ventilation, and do not place anything on top of the switch.

### 2.1.2 Installation Notice

- Read through the installation instruction carefully before operating on the system. Make sure the installation materials and tools are prepared. And make sure the installation site is well prepared.
- During the installation, users must use the brackets and screws provided in the accessory kit. Users should use the proper tools to perform the installation. Users should always wear antistatic uniform and ESD wrist straps. Users should use standard cables and connecters.
- After the installation, users should clean the site. Before powering on the switch, users should ensure the switch is well grounded. Users should maintain the switch regularly to extend the lifespan of the switch.


### 2.1.3 Security Warnings

- When using SFP/SFP+ transceiver, do not stare directly at the fiber bore when the switch is in operation. Otherwise the laser may hurt your eyes.
- Do not attempt to conduct the operations which can damage the switch or which can cause physical injury.
- Do not install, move or disclose the switch and its modules when the switch is in
operation.
- Do not open the switch shell.
- Do not drop metals into the switch. It can cause short-circuit.
- Do not touch the power plug and power socket.
- Do not place the tinder near the switch.
- Do not configure the switch alone in a dangerous situation,

■ Use standard power sockets which have overload and leakage protection.

- Inspect and maintain the site and the switch regularly.

■ Have the emergence power switch on the site. In case of emergence, switch off the power immediately.

- Class A ITE is a category of all other ITE which satisfies the class A ITE limits but not the class B ITE limits. The following warning shall be included in the instructions for use:

Warning
This is class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

## Caution!

Potential risk include: Electric leakage, Power supply arcing, Power line breakage, Imperfect earth, Overload circuit and Electrical short circuit. If electric shock, fire, electrical short circuit occurs, please cut off the electricity supply and alarm rapidly. Rescue the injured person in the contingency under inherently safe, Give the injured person proper first aid treatment according to the injury state, and seek help from the Medical Emergency using various ways

### 2.2 Installation Preparation

### 2.2.1 Verify the Package Contents

First, open the package; please check the contents of the switch container and accessory kit. (If you are concerned that any item is missing or an incorrect item has been supplied, please contact your dealer as soon as possible.)

### 2.2.2 Required Tools and Utilities

The required tools and utilities are shown below:

- Cross screwdrivers
- Flat-blade screwdriver
- ESD wrist strap
- Antistatic uniform


## Caution!

Users should prepare the required tools and utilities by themselves.

### 2.3 Installation Guide

### 2.3.1 Installing the Switch

Please mount S5750E series switch as below:

1. Attach the 2 brackets on the S5750E series with screws provided in the accessory kit.


Fig 2-1 Fasten the Brackets to the Switch
2. Put the bracket-mounted switch smoothly into a standard 19" rack. Fasten the S5750E series to the rack with the screws provided. Leave enough space around the switch for good air circulation.


Fig 2-2 Fasten the Switch to the Rack

## Caution!

The brackets are used to fix the switch on the rack. They can't serve as a bearing. Please place a rack shelf under the switch. Do not place anything on top of the switch. Do not block the blowholes on the switch to ensure the proper operation of the switch.

### 2.3.2 Connecting Console

## S5750E series provide a serial RJ45 console port.



Fig 2-3 Connecting Console to switch
The connection procedure is listed below:

1. Find the console cable provided in the accessory kit. Attach the RJ45 end to console port of the switch.
2. Connect the other side of the console cable to a character terminal (PC).
3. Power on the switch and the character terminal. Configure the switch through the character terminal.

### 2.3.3 SFPISFP+ Transceiver Installation

S5750E series provide multiple 1000Mb SFP or 10Gb SFP+ transceiver slots.
The procedure for installing the SFP/SFP+ transceiver is shown below:
Step 1: Put on a ESD wrist strap (or antistatic gloves)
Step 2: Insert the SFP/SFP+ transceiver to the guide rail inside the fiber interface line card. Do not put the SFP/SFP+ transceiver up-side-down.

Step 3: Push the SFP/SFP+ transceiver along the guide rail gently until you feel the transceiver snap into place at the bottom of the line card.
Note: the SFP/SFP+ transceiver is hot swappable.

## Caution!

Do not stare directly at the 2 fiber bore in the SFP/SFP+ transceiver when the switch is in operation, otherwise the laser may hurt your eyes.

### 2.3.4 Copper Cable/Fiber Cable Connection

Copper cables should be connected as below:
Step 1: Insert one end of the Ethernet cable to the RJ-45 Ethernet port in the switch copper cable line card;
Step 2: Insert the other end of the Ethernet cable to the RJ-45 Ethernet port of some other device;
Step 3: Check all status indicators for the corresponding ports; a lighted LED indicates that the link has been established, otherwise the link is not ready and the cable should be examined.

## Caution!

Please verify the sign above the port to ensure using the right port. Connecting to wrong ports might damage the switch.

Fiber cables should be connected as below:
Step 1: remove the protective plug from the SFP/SFP+ fiber transceiver bore; Remove the protective cap from one end of the fiber cable. Keep the fiber end clean and neat.
Step 2: Attach one end of the fiber cable to the SFP/SFP+ transceiver, and attach the other end to the transceiver of the other devices. Note: SFP/SFP+ transceiver's TX port should be connected to RX port of other device, and SFP/SFP+ transceiver's RX port should be connected to TX port of other device.
Step 3: Check the fiber port status indicator, a light LED indicates that the link has been established; otherwise the link is not ready and should be examined.

## Caution!

Please verify the sign above the port to ensure using the other ports. Connecting to wrong ports might damage the transceiver or the other ports. When connecting other devices through a fiber cable to the switch, the output power of the fiber cable must not exceed the maximum received power of the corresponding modules. Otherwise, it will damage the fiber transceiver. Do not stare at the fiber bore when the switch is in operation. That may hurt your eyes.

### 2.3.5 Power Supply Connection

S5750E series uses 220V AC power. Please read the power input specification for the detailed information.

Power supply connection procedure is described as below:


Fig 2-4 Attaching power cable to S5750E series

1. Insert one end of the power cable provided in the accessory kit into the power source socket (with overload and leakage protection), and the other end to the power socket in the back panel of the switch.
2. Check the power status indicator in the front panel of the switch. The corresponding power indicator should light. S5750E series is self-adjustable for the input voltage. As soon as the input voltage is in the range printed on the switch surface, the switch can operate correctly.
3. When the switch is powered on, it executes self-test procedure and startups.

Caution!
The input voltage must be within the required range, otherwise the switch can be damaged or malfunction. Do not open the switch shell without permission. It can cause physical injury.

