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8.23 ES5D21X08T00 (8-Port 10GBASE-T RJ45 Rear Interface Card)

8.24 S7X08000 (02312URW/02312URW-002: 8-Port 10GE SFP+ or 2-Port 25GE SFP28 Optical Interface Card (Only Ports 1 and 2 Support 25GE))

8.25 S7Y08000 (02312URV/02312URV-002: 8-Port 25GE SFP28 Optical Interface Card)

8.26 S7Q02001 (02313UBW: 2-port 40GE QSFP+ interface card)

8.27 S7Q02001 (02313UBW-002: 2-port 40GE QSFP+ interface card)

8.28 S7C02000 (2-port 100GE QSFP28 interface card)

8.29 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface)

8.30 ES5D00ETPC00 (Stack Rear Card)

8.31 ES5D00ETPB00 (Extended Rear Card)

8.1 Card Classification

Table 8-1 lists the cards supported by the S5700.

Table 8-1 Cards supported by the S5700

Card Type	Card Name	Card Description	Hot swapping
Front card	ES5D000X2S00	2-port 10GE SFP+ optical interface card	Not supported
Front card	ES5D000X4S01	4-port 10GE SFP+ optical interface card	Not supported
Front card	ES5D000G4S01	4-port GE optical interface card	Not supported
Front card	ES5D00G4SA01	4-port GE optical interface card	Not supported
Front card	ES5D00X2SA00	2-port GE SFP or 10GE SFP+ optical interface card	Supported
Front card	ES5D00X4SA00	4-port GE SFP or 10GE SFP+ optical interface card	Supported
Front card	ES5D00G4SC00	4-port GE SFP optical interface card	Supported
Front card	ES5D21G16S00	16-port GE SFP optical interface card	Supported
Front card	ES5D21G16T00	16-port GE RJ45 interface card	Supported

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Card Type	Card Name	Card Description	Hot swapping
Rear card	ES5D21G08S00	8-port GE SFP optical interface card	Supported
Rear card	ES5D21G08T00	8-port GE RJ45 interface card	Supported
Rear card	ES5D21X02S00	2-port GE SFP or 10GE SFP+ optical interface card	Supported
Rear card	ES5D00ETPC00	Stack card	Not supported
Rear card	ES5D00ETPB00	Extended channel card	Not supported
Rear card	ES5D21L04Q00	4-port 40GE QSFP+ optical interface card	Supported
Rear card	ES5D21Q02Q00	2-port 40GE QSFP+ optical interface card	Supported
Rear card	ES5D21Q04Q01	4-port 40GE QSFP+ optical interface card	Supported
Rear card	ES5D21X04S00	4-port 10GE SFP+ optical interface card	Supported
Rear card	ES5D21X04S01	4-port 10GE SFP+ optical interface card	Supported
Rear card	ES5D21X02S01	2-port 10GE SFP+ optical interface card	Supported
Rear card	ES5D21X02T01	2-port 10GBASE-T RJ45 interface card	Supported
Rear card	ES5D21X08T00	8-port 10GBASE-T RJ45 interface card	Supported
Rear card	ES5D21X08S00	8-port 10GE SFP+ optical interface card	Supported
Rear card	ES5D21VST000	Dedicated stack card with 2*QSFP+ interface	Supported
Rear card	S7X08000	8-port 10GE SFP+ or 2-port 25GE SFP28 optical interface card (only ports 1 and 2 support 25GE)	Supported
Rear card	S7Y08000	8-port 25GE SFP28 optical interface card	Supported
Rear card	S7Q02001	2-port 40GE QSFP+ optical interface card	Supported

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Card Type	Card Name	Card Description	Hot swapping
Rear card	S7C02000	2-port 100GE QSFP28 optical interface card	Supported

NOTE

Some cards are sold with other cards, for example, front card ES5D000X4S01 is sold with rear card ES5D00ETPB00. When a card is faulty, provide the bar code of the card for technical support personnel to fix the problem.

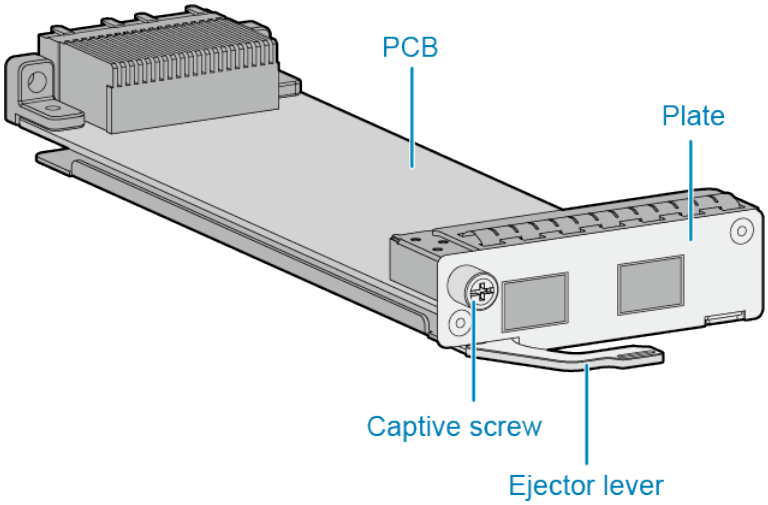
The cards supported by a switch depend on the software version. For details, see **Info-finder**.

8.2 Card Structure and Dimensions

Card Structure

Figure 8-1 shows the card appearance.

Figure 8-1 Card appearance



A card consists of the following components:

- Printed circuit board (PCB)

  The PCB contains all the functional chips of the card and is the core of the card. The PCB provides indicators and ports on the front panel.

  NOTE

  Different cards provide different indicators and ports. For details, see the description of specific cards.

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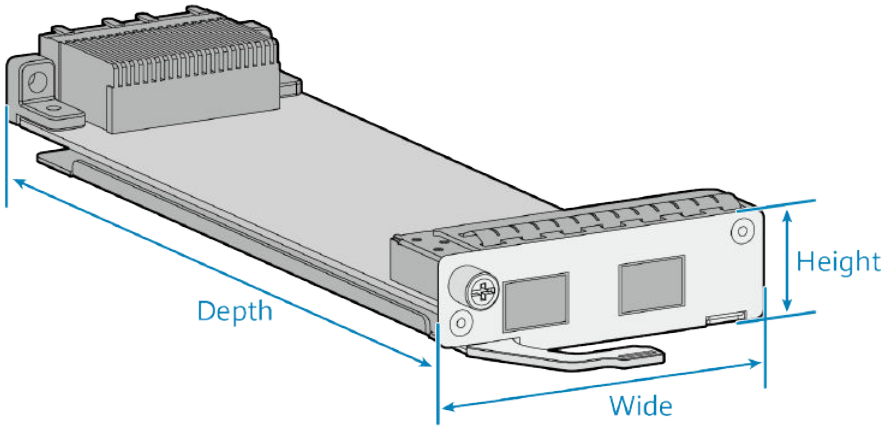
- Front panel, consisting of the captive screws, ejector levers, and plate
  - Captive screw: fixes the card into the chassis.
  - Ejector lever: allows you to insert and remove the card.
  - Plate: joins the ejector levers and the PCB.

Card Dimensions

Figure 8-2 shows the width, height, and depth of a card.

Figure 8-2 Card dimensions



NOTE

The card dimensions are defined as follows:

- Width: the longest distance between the tops of two ejector levers
- Depth: the distance between the plate and the end of PCB
- Height: the height of the front panel

8.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card)

Version Mapping

Table 8-2 lists the mapping between the ES5D000X2S00 card and software versions.

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Table 8-2 Version mapping

Card Model	Software Version
ES5D000X2S00 **NOTE** After the **display device** command is executed, the PCB model of the card is displayed as ES510X2S.	V100R005C01 to V200R005C03 **NOTE** This module is not supported in V200R003C02 or V200R003C10.

Card Overview

The ES5D000X2S00 provides two 10GE SFP+ optical ports for data access and line-rate switching. It can be installed in a front card slot of the switch models listed in **Table 8-3**.

Table 8-3 Applicable switch models

Card	Switch Model
ES5D000X2S00	• S5700-28C-SI • S5700-52C-SI • S5700-28C-PWR-SI • S5700-52C-PWR-SI • S5700-28C-EI • S5700-52C-EI • S5700-28C-EI-24S • S5700-28C-PWR-EI • S5700-52C-PWR-EI • S5710-28C-LI • S5710-52C-LI • S5710-28C-PWR-LI • S5710-52C-PWR-LI

Figure 8-3 shows the appearance of the ES5D000X2S00.

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Figure 8-3 ES5D000X2S00

Functions

Table 8-4 describes functions of the ES5D000X2S00.

Table 8-4 Functions

Function	Description
Basic function	Provides two 10GE SFP+ optical ports for data access and line-rate switching.
10GE port	A 10GE port is often used as an uplink aggregation port on high-bandwidth and high-speed MANs or backbone networks. When an enterprise needs high-quality triple-play service, use the ES5D000X2S00 to provide access ports for downlink devices or networks. Different transmission distances can be supported by using SFP+ optical modules.

Usage Constraints

NOTICE

The ES5D000X2S00 is not hot swappable.

Indicators and Ports

Figure 8-4 shows indicators on the ES5D000X2S00.

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Figure 8-4 Indicators on the ES5D000X2S00

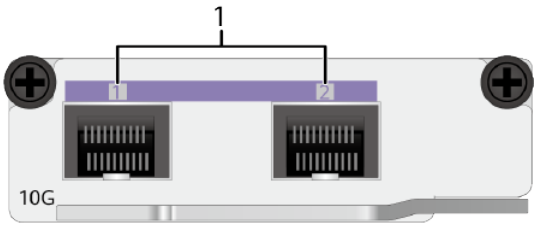


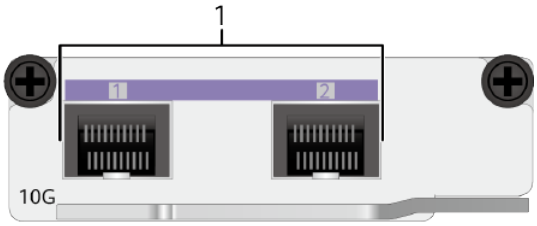
Table 8-5 shows indicators on the ES5D000X2S00.

Table 8-5 Indicator description

Number	Indicator	Color	Description
1	ACT/LINK	Green	• Steady on: A link is established on the port. • Blinking: The port is sending or receiving data.
		Off	No link is established on the port.

shows the ports on the ES5D000X2S00.

Figure 8-5 Ports on the ES5D000X2S00



1. Two 10GE SFP+ ports

10GE SFP+ port

The ES5D000X2S00 provides two 10GE optical ports to transmit and receive Ethernet service data at 1 Gbit/s or 10 Gbit/s. Table 8-6 describes attributes of a 10GE SFP+ optical port.

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NOTE

When used on the S5710-C-LI, the 10GE SFP+ ports support the 10GE SFP+ and GE SFP optical modules. When used on the S5700-SI, the 10GE SFP+ ports support 10GE SFP+ optical modules, GE optical modules, and GE copper modules (applicable in V200R002C00 and later versions and used with shielded Ethernet cables), SFP+ copper cables (applicable in V200R002C00 and later versions), and AOC cables (applicable in V200R003C00 and later versions). When used on the S5700-EI, the 10GE SFP+ ports support 10GE SFP+ optical modules, SFP+ copper cables (applicable in V200R002C00 and later versions), and AOC cables (applicable in V200R003C00 and later versions).

Table 8-6 Attributes of a 10GE SFP+ optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used (see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, **10.10 GE SFP Copper Modules**, **10.13 10GE SFP+ Optical Modules**, and **10.14 10GE-CWDM SFP+ Optical Modules**)
Standards compliance	IEEE 802.3ae

Technical Specifications

Table 8-7 describes the technical specifications of the ES5D000X2S00.

Table 8-7 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 22 mm x 70 mm x 197 mm (0.87 in. x 2.8 in. x 7.8 in.) • Weight: 0.2 kg (0.44 lb) • Maximum power consumption: 6.5 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-8 provides the ES5D000X2S00 ordering information.

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Table 8-8 Ordering information

Card Description	Card Name	Part Number
2-port 10GE SFP+ optical interface card (front card)	ES5D000X2S00	03020XEV

8.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card)

Version Mapping

Table 8-9 lists the mapping between the ES5D000X4S01 card and software versions.

Table 8-9 Version mapping

Card Model	Software Version
ES5D000X4S01 **NOTE** After the **display device** command is executed, the PCB model of the card is displayed as ES510X4S.	V100R005C01 to V200R005C03 **NOTE** This module is not supported in V200R003C02 or V200R003C10.

Card Overview

The ES5D000X4S01 provides four 10GE SFP+ optical ports for data access and line-rate switching. It can be installed in a front card slot of the switch models listed in Table 8-10.

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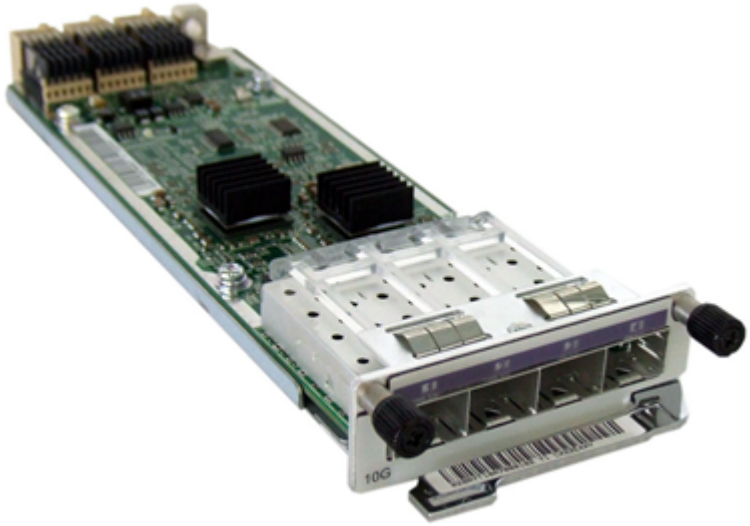
Table 8-10 Applicable switch models

Card	Switch Model
ES5D000X4S01	• S5700-28C-SI • S5700-52C-SI • S5700-28C-PWR-SI • S5700-52C-PWR-SI • S5700-28C-EI • S5700-52C-EI • S5700-28C-EI-24S • S5700-28C-PWR-EI (PCB version: VB) • S5700-52C-PWR-EI (PCB version: VB) • S5710-28C-LI • S5710-52C-LI • S5710-28C-PWR-LI • S5710-52C-PWR-LI

Figure 8-6 shows the appearance of the ES5D000X4S01.

Figure 8-6 ES5D000X4S01



Functions

Table 8-11 describes functions of the ES5D000X4S01.

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Table 8-11 Functions

Function	Description
Basic function	Provides two/four 10GE SFP+ optical ports for data access and line-rate switching.
10GE port	A 10GE port is often used as an uplink aggregation port on high-bandwidth and high-speed MANs or backbone networks. When an enterprise needs high-quality triple-play service, use the ES5D000X4S01 to provide access ports for downlink devices or networks. Different transmission distances can be supported by using SFP+ optical modules.

Usage Constraints

NOTICE

- The ES5D000X4S01 front card can provide four ports only if it is used with an ES5D00ETPB00 extended rear card. If no ES5D00ETPB00 extended rear card is used, only ports 1 and 3 on the ES5D000X4S01 front card are available. The names of ports 1 and 3 are respectively XGigabitEthernet */1/1 and XGigabitEthernet */1/2, where * indicates the slot ID.
- The ES5D000X4S01 front card must be used with an ES5D00ETPB00 card whose PCB version is VC.
- The ES5D000X4S01 front card must be used with PCB of VB or later versions on S5700-EI switches (VC on S5700-52C-EI). Use the **display version** command to check the PCB version of a switch.
- The ES5D000X4S01 is not hot swappable.

Indicators and Ports

Figure 8-7 shows indicators on the ES5D000X4S01/

Figure 8-7 Indicators on the ES5D000X4S01

Table 8-12 describes indicators on the ES5D000X4S01.

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Table 8-12 Indicator description

Number	Indicator	Color	Description
1	ACT/LINK	Green	• Steady on: A link is established on the port. • Blinking: The port is sending or receiving data.
		Off	No link is established on the port.

Figure 8-8 shows the ports on the ES5D000X4S01.

Figure 8-8 Ports on the ES5D000X4S01

1. Four 10GE SFP+ optical ports

10GE SFP+ optical port

The ES5D000X4S01 provides four 10GE optical ports to transmit and receive Ethernet service data at 1 Gbit/s or 10 Gbit/s. Table 8-13 describes attributes of a 10GE SFP+ optical port.

NOTE

When used on the S5710-C-LI, the 10GE SFP+ ports support the 10GE SFP+ and GE SFP optical modules. When used on the S5700-SI, the 10GE SFP+ ports support 10GE SFP+ optical modules, GE optical modules, and GE copper modules (applicable in V200R002C00 and later versions and used with shielded Ethernet cables), SFP+ copper cables (applicable in V200R002C00 and later versions), and AOC cables (applicable in V200R003C00 and later versions). When used on the S5700-EI, the 10GE SFP+ ports support 10GE SFP+ optical modules, SFP+ copper cables (applicable in V200R002C00 and later versions), and AOC cables (applicable in V200R003C00 and later versions).

Table 8-13 Attributes of a 10GE SFP+ optical port

Attribute	Description
Connector type	LC/PC

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Attribute	Description
Optical port attributes	Depend on the optical module used (see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, **10.10 GE SFP Copper Modules**, **10.13 10GE SFP+ Optical Modules**, and **10.14 10GE-CWDM SFP+ Optical Modules**)
Standards compliance	IEEE 802.3ae

Technical Specifications

Table 8-14 lists technical specifications of the ES5D000X4S01.

Table 8-14 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 22 mm x 70 mm x 197 mm (0.87 in. x 2.8 in. x 7.8 in.) • Weight: 0.3 kg (0.66 lb) • Maximum power consumption: 13 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-15 provides the ES5D000X4S01 ordering information.

Table 8-15 Ordering information

Card Description	Card Name	Part Number
4-port 10GE SFP+ optical interface card (consisting of an ES5D000X4S01 4-port 10GE front card and an ES5D00ETPB00 extended channel rear card)	ES5D000X4S00 **NOTE** The ES5D000X4S01 front card must work with the ES5D00ETPB00 rear card, so the two cards are sold together. ES5D000X4S00 is the name of the combination of the two cards.	02319956

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8.5 ES5D000G4S01 (4-Port GE SFP Front Optical Interface Card)

Version Mapping

Table 8-16 lists the mapping between the ES5D000G4S01 card and software versions.

Table 8-16 Version mapping

Card Model	Software Version
ES5D000G4S01 **NOTE** After the **display device** command is executed, the PCB model of the card is displayed as ES510G4S.	V100R005C01 to V200R005C03 **NOTE** This module is not supported in V200R003C02 or V200R003C10.

Card Overview

The ES5D000G4S01 provides four GE SFP optical ports for data access and line-rate switching. It can be installed in a front card slot of the switch models listed in Table 8-17.

Table 8-17 Applicable switch models

Card	Switch Model
ES5D000G4S01	• S5700-28C-EI • S5700-52C-EI • S5700-28C-EI-24S • S5700-28C-PWR-EI • S5700-52C-PWR-EI

Figure 8-9 shows the appearance of the ES5D000G4S01.

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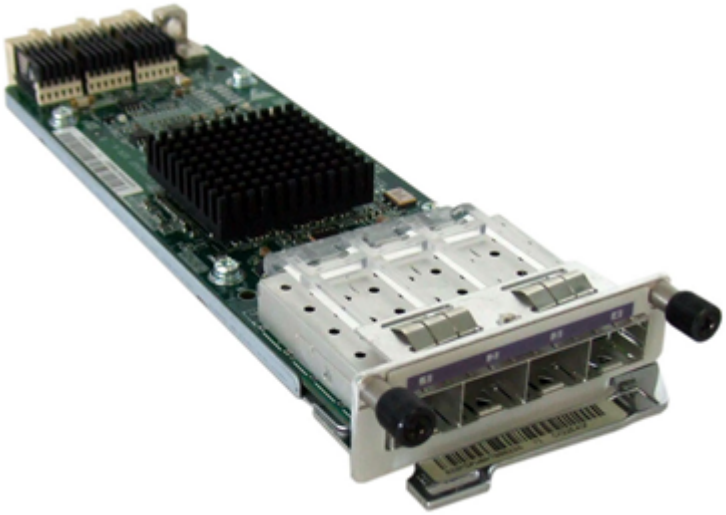
Figure 8-9 ES5D000G4S01



Functions

Table 8-18 describes functions of the ES5D000G4S01.

Table 8-18 Functions

Function	Description
Basic function	Provides four GE SFP optical ports for data access and line-rate switching.
GE port	A GE port is often used as an uplink aggregation port on high-bandwidth and high-speed MANs or backbone networks. When an enterprise needs high-quality triple-play service, use the ES5D000G4S01 to provide access ports for downlink devices or networks.

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Usage Constraints

NOTICE

- If the ES5D000G4S01 is installed on the S5700-SI or S5710-C-LI, the front card cannot register.
- The ES5D000G4S01 front card can provide four ports only if it is used with an ES5D00ETPB00 extended rear card. If no ES5D00ETPB00 extended rear card is used, only the first two ports on the ES5D000G4S01 front card are available.
- When an S5700-EI is equipped with the ES5D00ETPC00 stack rear card, only ports 1 and 2 are available if the ES5D000G4S01 front card is used.
- The ES5D000G4S01 is not hot swappable.

Indicators and Ports

Figure 8-10 shows indicators on the ES5D000G4S01.

Figure 8-10 Indicators on the ES5D000G4S01

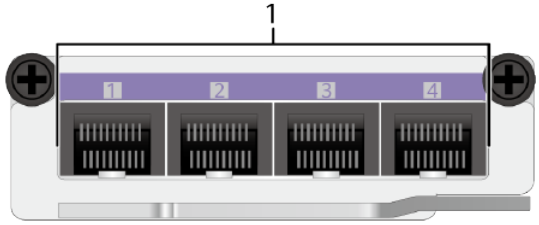
Table 8-19 describes indicator status on the ES5D000G4S01.

Table 8-19 Indicator description

Number	Indicator	Color	Description
1	ACT/LINK	Green	• Steady on: A link is established on the port. • Blinking: The port is sending or receiving data.
		Off	No link is established on the port.

Figure 8-11 shows the ports on the ES5D000G4S01.

Figure 8-11 Ports on the ES5D000G4S01



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1. Four GE SFP optical ports

GE SFP port

The ES5D000G4S01 provides four GE optical ports to transmit and receive Ethernet service data at 1000 Mbit/s. **Table 8-20** describes attributes of an SFP optical port.

NOTE

The GE SFP ports support GE optical and copper modules (used with shielded Ethernet cables).

A GE SFP port can go Up after a GE copper module is installed. However, electrical attributes, such as the rate, duplex mode, auto-negotiation, MDI, flow control, and virtual cable test, are not configurable in this case.

Table 8-20 Attributes of an SFP optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used (see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, and **10.10 GE SFP Copper Modules**)
Standards compliance	IEEE 802.3z

Technical Specifications

Table 8-21 lists technical specifications of the ES5D000G4S01.

Table 8-21 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 22 mm x 70 mm x 197 mm (0.87 in. x 2.8 in. x 7.8 in.) • Weight: 0.2 kg (0.44 lb) • Maximum power consumption: 6 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the

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latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-22 provides the ES5D000G4S01 ordering information.

Table 8-22 Ordering information

Card Description	Card Name	Part Number
4-port GE SFP optical interface card (consisting of an ES5D000G4S01 4-port GE front card and an ES5D00ETPB00 extended channel rear card) This card is applicable to the EI series.	ES5D000G4S00 **NOTE** The ES5D000G4S01 front card must work with the ES5D00ETPB00 rear card, so the two cards are sold together. ES5D000G4S00 is the name of the combination of the two cards.	02319957

8.6 ES5D00G4SA01 (4-Port GE SFP Front Optical Interface Card)

Version Mapping

Table 8-23 lists the mapping between the ES5D00G4SA01 card and software versions.

Table 8-23 Version mapping

Card Model	Software Version
ES5D00G4SA01 **NOTE** After the **display device** command is executed, the PCB model of the card is displayed as ES510G4SA.	V100R005C01 to V200R005C02 **NOTE** This module is not supported in V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Card Overview

The ES5D00G4SA01 provides four GE SFP optical ports for data access and line-rate switching. It can be installed in a front card slot of the switch models listed in Table 8-24.

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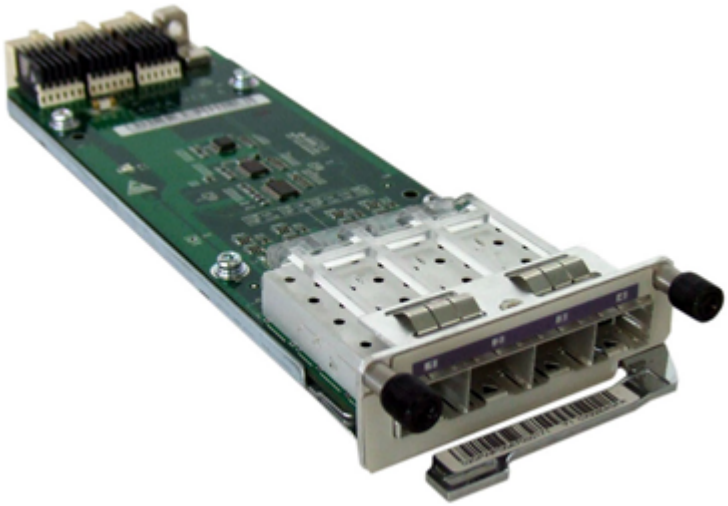
Table 8-24 Applicable switch models

Card	Switch Model
ES5D00G4SA01	• S5700-28C-SI • S5700-52C-SI • S5700-28C-PWR-SI • S5700-52C-PWR-SI • S5710-28C-LI • S5710-52C-LI • S5710-28C-PWR-LI • S5710-52C-PWR-LI

Figure 8-12 shows the appearance of the ES5D00G4SA01.

Figure 8-12 ES5D00G4SA01



Functions

Table 8-25 describes functions of the ES5D00G4SA01.

Table 8-25 Functions

Function	Description
Basic function	Provides four GE SFP optical ports for data access and line-rate switching.

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Function	Description
GE port	A GE port is often used as an uplink aggregation port on high-bandwidth and high-speed MANs or backbone networks. When an enterprise needs high-quality triple-play service, use the ES5D00G4SA01 to provide access ports for downlink devices or networks.

Usage Constraints

NOTICE

- If the ES5D00G4SA01 is installed on the S5700-EI, the front card cannot register.
- The ES5D00G4SA01 front card can provide four ports only if it is used with an ES5D00ETPB00 extended rear card. If no ES5D00ETPB00 extended rear card is used, only the first two ports on the ES5D00G4SA01 front card are available.
- When an S5700-SI/S5710-C-LI is equipped with the ES5D00ETPC00 stack rear card, only ports 1 and 2 are available if the ES5D00G4SA01 front card is used.
- The ES5D00G4SA01 is not hot swappable.

Indicators and Ports

Figure 8-13 shows indicators on the ES5D00G4SA01.

Figure 8-13 Indicators on the ES5D00G4SA01

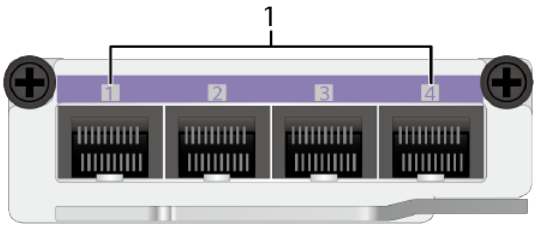

Table 8-26 describes indicator status on the ES5D00G4SA01.

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Table 8-26 Indicator description

Number	Indicator	Color	Description
1	ACT/LINK	Green	• Steady on: A link is established on the port. • Blinking: The port is sending or receiving data.
		Off	No link is established on the port.

Figure 8-14 shows the ports on the ES5D00G4SA01.

Figure 8-14 Ports on the ES5D00G4SA01

1. Four GE SFP optical ports

GE SFP optical port

The ES5D00G4SA01 provides four GE optical ports to transmit and receive Ethernet service data at 1000 Mbit/s. **Table 8-27** describes attributes of an SFP optical port.

NOTE

The GE SFP ports support GE optical and copper modules (used with shielded Ethernet cables).

A GE SFP port can go Up after a GE copper module is installed. However, electrical attributes, such as the rate, duplex mode, auto-negotiation, MDI, flow control, and virtual cable test, are not configurable in this case.

Table 8-27 Attributes of an SFP optical port

Attribute	Description
Connector type	LC/PC

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Attribute	Description
Optical port attributes	Depend on the optical module used (see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, and **10.10 GE SFP Copper Modules**)
Standards compliance	IEEE 802.3z

Technical Specifications

Table 8-28 lists technical specifications of the ES5D00G4SA01.

Table 8-28 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 22 mm x 70 mm x 197 mm (0.87 in. x 2.8 in. x 7.8 in.) • Weight: 0.2 kg (0.44 lb) • Maximum power consumption: 4.5 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-29 provides the ES5D00G4SA01 ordering information.

Table 8-29 Ordering information

Card Description	Card Name	Part Number
4-port GE SFP optical interface card (consisting of an ES5D00G4SA01 4-port GE front card and an ES5D00ETPB00 extended channel rear card) This card is applicable to the SI series.	ES5D00G4SA00 **NOTE** The ES5D00G4SA01 front card must work with the ES5D00ETPB00 rear card, so the two cards are sold together. ES5D00G4SA00 is the name of the combination of the two cards.	02319958

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8.7 ES5D00X2SA00 (2-Port GE SFP/10GE SFP+ Front Optical Interface Card)

Version Mapping

Table 8-30 lists the mapping between the ES5D00X2SA00 card and software versions.

Table 8-30 Version mapping

Card Model	Software Version
ES5D00X2SA00 **NOTE** After the **display device** command is executed, the PCB model of the card is displayed as ES510X2SA.	V100R006C01 to V200R005C02 **NOTE** This module is not supported in V200R003C02 or V200R003C10.

Card Overview

The ES5D00X2SA00 provides two 10GE SFP+ optical ports for data access and line-rate switching. It can be installed in a card slot of the switch models listed in Table 8-31.

Table 8-31 Applicable switch models

Card	Switch Model
ES5D00X2SA00	• S5700-28C-HI • S5700-28C-HI-24S

Figure 8-15 shows the appearance of the ES5D00X2SA00.

Figure 8-15 ES5D00X2SA00

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Functions

Table 8-32 describes functions of the ES5D00X2SA00.

Table 8-32 Functions

Function	Description
Basic function	Provides two 10GE SFP+ optical ports respectively for data access and line-rate switching.
Enhanced service	The S5700-HI powers on or off the ES5D00X2SA00, detects whether the ES5D00X2SA00 is installed or not, and manages PHY chips and optical ports on the ES5D00X2SA00. They provide hardware-based OAM and BFD for the switch.
Hot swapping	Supported
Service ports for stacking	The service ports on the ES5D00X2SA00 can be used as stack ports on an S5700-HI switch. **NOTE** The S5700-HI has supported service port-based stacking since V200R003C00.

Indicators and Ports

Figure 8-16 shows indicators on the ES5D00X2SA00.

Figure 8-16 Indicators on the ES5D00X2SA00

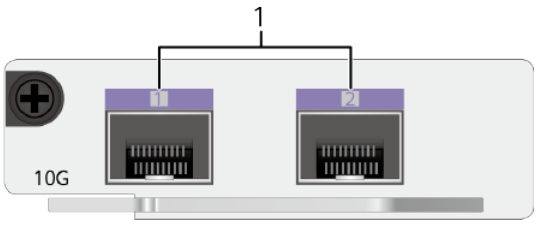

Table 8-33 shows indicators on the ES5D00X2SA00.

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Table 8-33 Indicator description

Number	Indicator	Color	Description
1	ACT/LINK	Green	• Steady on: A link is established on the port. • Blinking: The port is sending or receiving data.
		Off	No link is established on the port.

Figure 8-17 shows ports on the ES5D00X2SA00.

Figure 8-17 Ports on the ES5D00X2SA00

1. Two/Four 10GE SFP+ optical ports

10GE SFP+ optical port

The ES5D00X2SA00 provides two 10GE optical ports (GE/10GE auto-sensing) respectively to transmit and receive Ethernet service data at 1 Gbit/s or 10 Gbit/s. Table 8-34 describes attributes of an SFP+ optical port.

NOTE

The 10GE SFP+ optical ports support 10GE SFP+ optical modules, GE optical modules, GE copper modules (in V200R002C00 and later versions, used with shielded twisted pair cables), SFP+ cables (in V200R002C00 and later versions), and AOC cables (in V200R003C00 and later versions).

Table 8-34 Attributes of a 10GE SFP+ optical port

Attribute	Description
Connector type	LC/PC

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Attribute	Description
Optical port attributes	Depend on the optical module used (see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, **10.10 GE SFP Copper Modules**, **10.13 10GE SFP+ Optical Modules**, and **10.14 10GE-CWDM SFP+ Optical Modules**)
Standards compliance	IEEE 802.3ae

Technical Specifications

Table 8-35 lists technical specifications of the ES5D00X2SA00.

Table 8-35 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 23 mm x 77 mm x 207 mm (0.9 in. x 3.0 in. x 8.1 in.) • Weight: 0.5 kg (1.10 lb) • Maximum power consumption: 7 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-36 provides the ES5D00X2SA00 ordering information.

Table 8-36 Ordering information

Card Description	Card Name	Part Number
2-port GE SFP or 10GE SFP+ optical interface card (front card)	ES5D00X2SA00	03021JYN

8.8 ES5D00X4SA00 (4-Port GE SFP/10GE SFP+ Front Optical Interface Card)

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Version Mapping

Table 8-37 lists the mapping between the ES5D00X4SA00 card and software versions.

Table 8-37 Version mapping

Card Model	Software Version
ES5D00X4SA00 **NOTE** After the **display device** command is executed, the PCB model of the card is displayed as ES510X4SA.	V100R006C01 to V200R005C02 **NOTE** This module is not supported in V200R003C02 or V200R003C10.

Card Overview

The ES5D00X4SA00 provides four 10GE SFP+ optical ports for data access and line-rate switching. It can be installed in a card slot of the switch models listed in Table 8-38.

Table 8-38 Applicable switch models

Card	Switch Model
ES5D00X4SA00	• S5700-28C-HI • S5700-28C-HI-24S

Figure 8-18 shows the appearance of the ES5D00X4SA00.

Figure 8-18 ES5D00X4SA00

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Functions

Table 8-39 describes of the ES5D00X4SA00.

Table 8-39 Functions

Function	Description
Basic function	Provides four 10GE SFP+ optical ports respectively for data access and line-rate switching.
Enhanced service	The S5700-HI powers on or off the ES5D00X4SA00, detects whether the ES5D00X4SA00 is installed or not, and manages PHY chips and optical ports on the ES5D00X4SA00. They provide hardware-based OAM and BFD for the switch.
Hot swapping	Supported
Service ports for stacking	The service ports on the ES5D00X4SA00 can be used as stack ports on an S5700-HI switch. **NOTE** The S5700-HI has supported service port-based stacking since V200R003C00.

Indicators and Ports

Figure 8-19 shows indicators on the ES5D00X4SA00.

Figure 8-19 Indicators on the ES5D00X4SA00

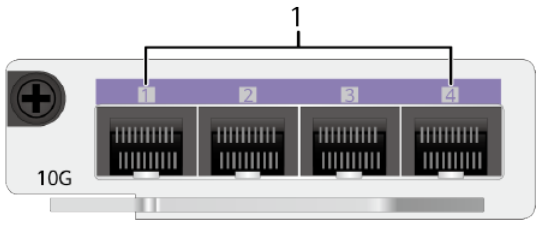

Table 8-40 shows indicators on the ES5D00X4SA00.

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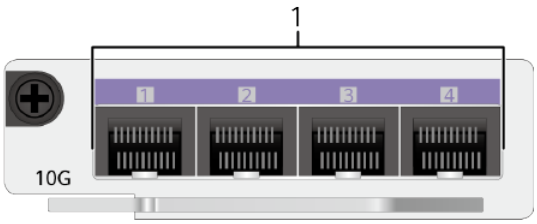
Table 8-40 Indicator description

Number	Indicator	Color	Description
1	ACT/LINK	Green	• Steady on: A link is established on the port. • Blinking: The port is sending or receiving data.
		Off	No link is established on the port.

Figure 8-20 shows ports on the ES5D00X4SA00.

Figure 8-20 Ports on the ES5D00X4SA00



1. Four 10GE SFP+ optical ports

10GE SFP+ optical port

The ES5D00X4SA00 provides four 10GE optical ports (GE/10GE auto-sensing) respectively to transmit and receive Ethernet service data at 1 Gbit/s or 10 Gbit/s. **Table 8-41** describes attributes of an SFP+ optical port.

NOTE

The 10GE SFP+ optical ports support 10GE SFP+ optical modules, GE optical modules, GE copper modules (in V200R002C00 and later versions, used with shielded twisted pair cables), SFP+ cables (in V200R002C00 and later versions), and AOC cables (in V200R003C00 and later versions).

Table 8-41 Attributes of a 10GE SFP+ optical port

Attribute	Description
Connector type	LC/PC

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Attribute	Description
Optical port attributes	Depend on the optical module used (see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, **10.10 GE SFP Copper Modules**, **10.13 10GE SFP+ Optical Modules**, and **10.14 10GE-CWDM SFP+ Optical Modules**)
Standards compliance	IEEE 802.3ae

Technical Specifications

Table 8-42 lists technical specifications of the ES5D00X4SA00.

Table 8-42 Specifications of the ES5D00X4SA00

Item	Description
Physical specifications	• Dimensions (H x W x D): 23 mm x 77 mm x 207 mm (0.9 in. x 3.0 in. x 8.1 in.) • Weight: 0.5 kg (1.10 lb) • Maximum power consumption: 10 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-43 provides the ES5D00X4SA00 ordering information.

Table 8-43 Ordering information

Card Description	Card Name	Part Number
4-port GE SFP or 10GE SFP+ optical interface card (front card)	ES5D00X4SA00	03021JYM

8.9 ES5D00G4SC00 (4-Port GE SFP Front Optical Interface Card)

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Version Mapping

Table 8-44 lists the mapping between the ES5D00G4SC00 card and software versions.

Table 8-44 Version mapping

Card Model	Software Version
ES5D00G4SC00 **NOTE** After the **display device** command is executed, the PCB model of the card is displayed as ES510G4SC.	V100R006C01 to V200R005C02 **NOTE** This module is not supported in V200R003C02 or V200R003C10.

Card Overview

The ES5D00G4SC00 provides four 1000M SFP optical ports for data access and line-rate switching for upstream services. It can be installed in a front card slot of the switch models listed in Table 8-45.

Table 8-45 Applicable switch models

Card	Switch Model
ES5D00G4SC00	• S5700-28C-HI • S5700-28C-HI-24S

Figure 8-21 shows the appearance of the ES5D00G4SC00.

Figure 8-21 ES5D00G4SC00

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Functions

Table 8-46 describes functions of the ES5D00G4SC00.

Table 8-46 Functions

Function	Description
Basic function	Provides four 1000M SFP optical ports for data access and line-rate switching for upstream services.
Enhanced service	The S5700-HI powers on or off the ES5D00G4SC00, detects whether the ES5D00G4SC00 is installed or not, and manages PHY chips and optical ports on the ES5D00G4SC00. The ES5D00G4SC00 provides hardware-based OAM and BFD for the switch.
Hot swapping	Supported

Indicators and Ports

Figure 8-22 shows indicators on the ES5D00G4SC00.

Figure 8-22 Indicators on the ES5D00G4SC00

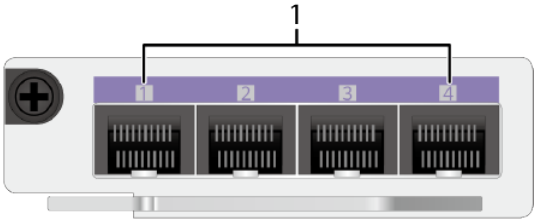

Table 8-47 describes indicator status on the ES5D00G4SC00.

Table 8-47 Indicator description

Number	Indicator	Color	Description
1	ACT/LINK	Green	• Steady on: A link is established on the port. • Blinking: The port is sending or receiving data.
		Off	No link is established on the port.

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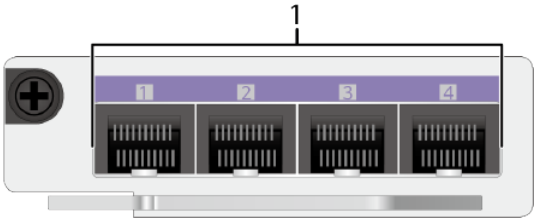
Figure 8-23 shows ports on the ES5D00G4SC00.

Figure 8-23 Ports on the ES5D00G4SC00



1. Four GE SFP optical ports

GE SFP optical port

The ES5D00G4SC00 provides four GE optical ports to transmit and receive Ethernet service data at 1000 Mbit/s. Table 8-48 describes attributes of an SFP optical port.

NOTE

The GE SFP ports support GE optical and copper modules (used with shielded Ethernet cables).

A GE SFP port can go Up after a GE copper module is installed. However, electrical attributes, such as the rate, duplex mode, auto-negotiation, MDI, flow control, and virtual cable test, are not configurable in this case.

Table 8-48 Attributes of an SFP optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used (see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, **10.10 GE SFP Copper Modules**)
Standards compliance	IEEE 802.3z

Technical Specifications

Table 8-49 lists technical specifications of the ES5D00G4SC00.

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Table 8-49 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 23 mm x 77 mm x 207 mm (0.9 in. x 3.0 in. x 8.1 in.) • Weight: 0.3 kg (0.66 lb) • Maximum power consumption: 4 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-50 provides the ES5D00G4SC00 ordering information.

Table 8-50 Ordering information

Card Description	Card Name	Part Number
4-port GE SFP optical interface card (front card)	ES5D00G4SC00	03021JYP

8.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card)

Version Mapping

Table 8-51 lists the mapping between the ES5D21G08S00 card and software versions.

Table 8-51 Version mapping

Card Model	Software Version
ES5D21G08S00	V200R001C00 to V200R005C02 **NOTE** This module is not supported in V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Card Overview

The ES5D21G08S00 provides eight GE SFP optical ports for data access and line-rate switching.

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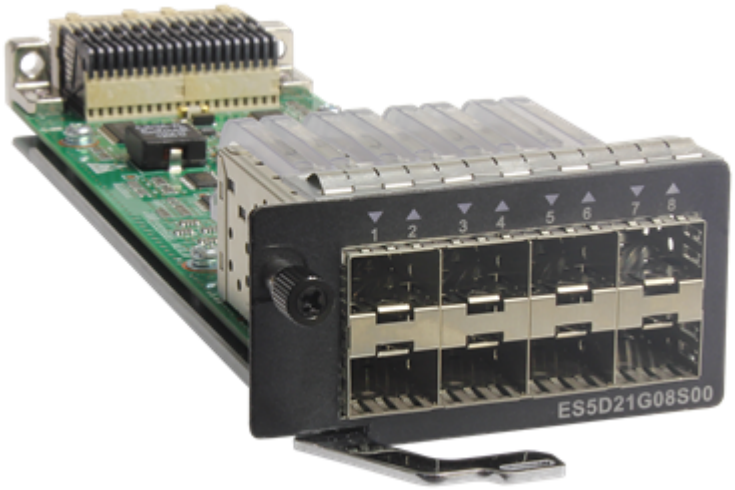
The ES5D21G08S00 can be installed in a rear card slot of the switch models listed in **Table 8-52**.

Table 8-52 Applicable switch models

Card	Switch Model
ES5D21G08S00	• S5710-52C-PWR-EI • S5710-52C-PWR-EI-AC • S5710-28C-PWR-EI-AC • S5710-52C-EI • S5710-28C-EI

Figure 8-24 shows the appearance of the ES5D21G08S00.

Figure 8-24 ES5D21G08S00



Functions

Table 8-53 describes functions of the ES5D21G08S00.

Table 8-53 Functions

Function	Description
Basic function	Provides eight 1000M SFP optical ports for data access and line-rate switching for GE services.
Hot swapping	Supported

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Indicators and Ports

Figure 8-25 shows indicators on the ES5D21G08S00.

Figure 8-25 Indicators on the ES5D21G08S00

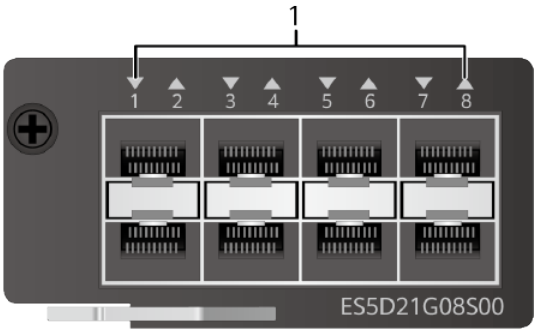


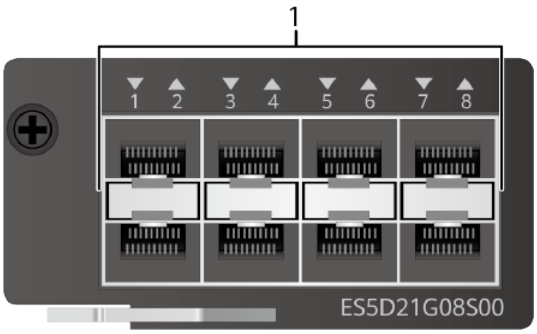
Table 8-54 describes indicator status on the ES5D21G08S00.

Table 8-54 Indicator description

Number	Indicator	Color	Description
1	ACT/LINK	Green	• Steady on: A link is established on the port. • Blinking: The port is sending or receiving data.
		Off	No link is established on the port.

Figure 8-26 shows ports on the ES5D21G08S00.

Figure 8-26 Ports on the ES5D21G08S00



1. Eight GE SFP optical ports

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GE SFP optical port

The ES5D21G08S00 provides eight GE optical ports to transmit and receive services at 1000 Mbit/s. **Table 8-55** describes attributes of an SFP optical port.

NOTE

The optical ports on the ES5D21G08S00 support GE optical modules.

Table 8-55 Attributes of an SFP optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used (see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, and **10.9 GE-DWDM eSFP Optical Modules**)
Standards compliance	IEEE 802.3z

Technical Specifications

Table 8-56 lists technical specifications of the ES5D21G08S00.

Table 8-56 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 42 mm x 77 mm x 207 mm (1.7 in. x 3.0 in. x 8.1 in.) • Weight: 0.3 kg (0.66 lb) • Maximum power consumption: 12.4 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-57 provides the ES5D21G08S00 ordering information.

Table 8-57 Ordering information

Card Description	Card Name	Part Number
8-port GE SFP optical interface card (rear card)	ES5D21G08S00	03021ESM

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8.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card)

Version Mapping

Table 8-58 lists the mapping between the ES5D21G08T00 card and software versions.

Table 8-58 Version mapping

Card Model	Software Version
ES5D21G08T00	V200R001C00 to V200R005C02 **NOTE** This module is not supported in V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Card Overview

The ES5D21G08T00 provides eight 10M/100M/1000M electrical ports for data access and line-rate switching.

The ES5D21G08T00 can be installed in a rear card slot of the switch models listed in Table 8-59.

Table 8-59 Applicable switch models

Card	Switch Model
ES5D21G08T00	• S5710-52C-PWR-EI • S5710-52C-PWR-EI-AC • S5710-28C-PWR-EI-AC • S5710-52C-EI • S5710-28C-EI

Figure 8-27 shows the appearance of the ES5D21G08T00.

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Figure 8-27 ES5D21G08T00

Functions

Table 8-60 describes functions of the ES5D21G08T00.

Table 8-60 Functions

Function	Description
Basic function	Provides eight 10M/100M/1000M electrical ports for data access and line-rate switching.
Hot swapping	Supported

Indicators and Ports

Figure 8-28 shows indicators on the ES5D21G08T00.

Figure 8-28 Indicators on the ES5D21G08T00

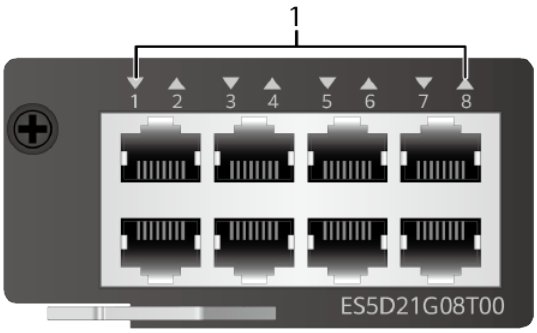

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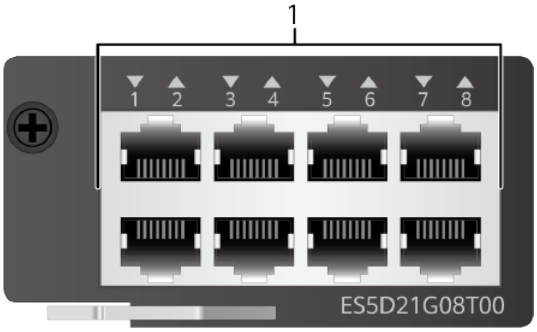
Table 8-61 describes indicator status on the ES5D21G08T00.

Table 8-61 Indicator description

Number	Indicator	Color	Description
1	ACT/LINK	Green	• Steady on: A link is established on the port. • Blinking: The port is sending or receiving data.
		Off	No link is established on the port.

Figure 8-29 shows ports on the ES5D21G08T00.

Figure 8-29 Ports on the ES5D21G08T00



1. Eight 10/100/1000BASE-T electrical ports

10/100/1000BASE-T electrical port

The ES5D21G08T00 provides eight 10M/100M/1000M Ethernet electrical ports to transmit and receive Ethernet service data. The eight 10/100/1000BASE-T Ethernet electrical ports must be used with **9.4 Ethernet Cable**. Table 8-62 describes attributes of the 10/100/1000BASE-T electrical port.

Table 8-62 Attributes of the 10/100/1000BASE-T electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, and IEEE802.3ab

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Technical Specifications

Table 8-63 lists technical specifications of the ES5D21G08T00.

Table 8-63 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 42 mm x 77 mm x 207 mm (1.7 in. x 3.0 in. x 8.1 in.) • Weight: 0.3 kg (0.66 lb) • Maximum power consumption: 8.3 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-64 provides the ES5D21G08T00 ordering information.

Table 8-64 Ordering information

Card Description	Card Name	Part Number
8-port GE electrical interface card (rear card)	ES5D21G08T00	03021ESN

8.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card)

Version Mapping

Table 8-65 lists the mapping between the ES5D21X02S00 card and software versions.

Table 8-65 Version mapping

Card Model	Software Version
ES5D21X02S00	V200R001C00 to V200R005C02 **NOTE** This module is not supported in V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

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Card Overview

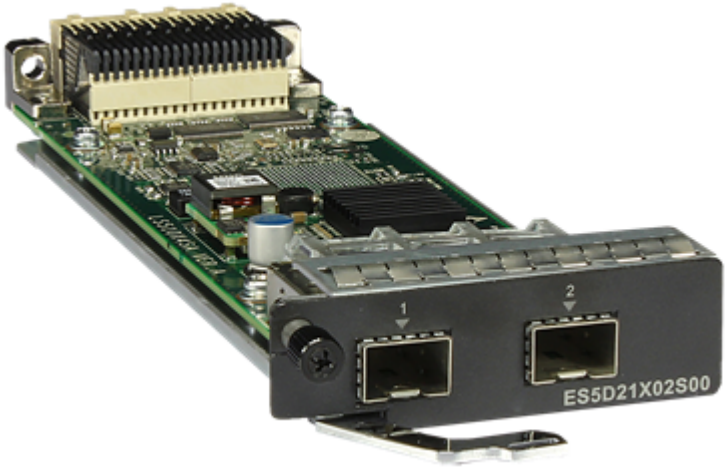
The ES5D21X02S00 provides two 10GE SFP+ optical ports for data access and line-rate switching. It can be installed in a card slot of the switch models listed in Table 8-66.

Table 8-66 Applicable switch models

Card	Switch Model
ES5D21X02S00	• S5710-52C-PWR-EI • S5710-52C-PWR-EI-AC • S5710-28C-PWR-EI-AC • S5710-52C-EI • S5710-28C-EI

Figure 8-30 shows the appearance of the ES5D21X02S00.

Figure 8-30 ES5D21X02S00



Functions

Table 8-67 describes functions of the ES5D21X02S00.

Table 8-67 Functions

Function	Description
Basic function	Provides two 10GE SFP+ optical ports for data access and line-rate switching.
Hot swapping	Supported

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Function	Description
Service port supporting the stack function	The ES5D21X02S00 can be used on the stack port of the switch.

Indicators and Ports

Figure 8-31 shows indicators on the ES5D21X02S00.

Figure 8-31 Indicators on the ES5D21X02S00

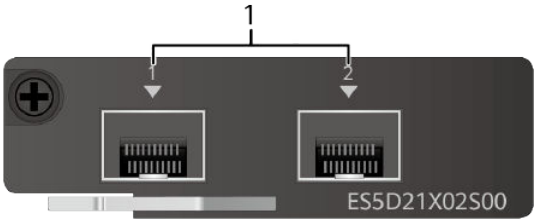


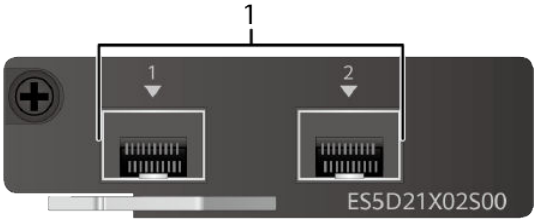
Table 8-68 describes indicators on the ES5D21X02S00.

Table 8-68 Indicator description

Number	Indicator	Color	Description
1	ACT/LINK	Green	• Steady on: A link is established on the port. • Blinking: The port is sending or receiving data.
		Off	No link is established on the port.

Figure 8-32 shows ports on the ES5D21X02S00.

Figure 8-32 Ports on the ES5D21X02S00



1. Two 10GE SFP+ optical ports

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10GE SFP+ optical port

The ES5D21X02S00 provides two 10GE optical ports (auto-sensing GE ports) to transmit and receive Ethernet service data at 1 Gbit/s or 10 Gbit/s. **Table 8-69** describes attributes of an SFP+ optical port.

NOTE

The optical ports on the ES5D21X02S00 support 10GE SFP+ optical modules, GE SFP optical modules, GE copper modules (in V200R002C00 and later versions, used with shielded twisted pair cables), SFP+ copper cables (in V200R002C00 and later versions), and AOC cables (in V200R003C00 and later versions).

Table 8-69 Attributes of a 10GE SFP+ optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used (see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, **10.10 GE SFP Copper Modules**, **10.13 10GE SFP+ Optical Modules**, and **10.14 10GE-CWDM SFP+ Optical Modules**)
Standards compliance	IEEE 802.3ae

Technical Specifications

Table 8-70 lists technical specifications of the ES5D21X02S00.

Table 8-70 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 23 mm x 77 mm x 207 mm (0.9 in. x 3.0 in. x 8.1 in.) • Weight: 0.5 kg (1.10 lb) • Maximum power consumption: 7 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-71 provides the ES5D21X02S00 ordering information.

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Table 8-71 Ordering information

Card Description	Card Name	Part Number
2-port GE SFP or 10GE SFP+ optical interface card (rear card)	ES5D21X02S00	03021NTU

8.13 ES5D21G16S00 (16-Port GE SFP Front Optical Interface Card)

Version Mapping

Table 8-72 lists the mapping between the ES5D21G16S00 card and software versions.

Table 8-72 Version mapping

Card Model	Software Version
ES5D21G16S00	V200R003C00 to V200R005C03 **NOTE** This module is not supported in V200R003C02, V200R003C10, or V200R005C01.

Card Overview

The ES5D21G16S00 provides sixteen GE SFP optical ports for data access and line-rate switching.

The ES5D21G16S00 can be installed in the front card slot of the switch models listed in Table 8-73.

Table 8-73 Applicable switch models

Card	Switch Model
ES5D21G16S00	S5710-108C-PWR-HI

Figure 8-33 shows the appearance of the ES5D21G16S00.

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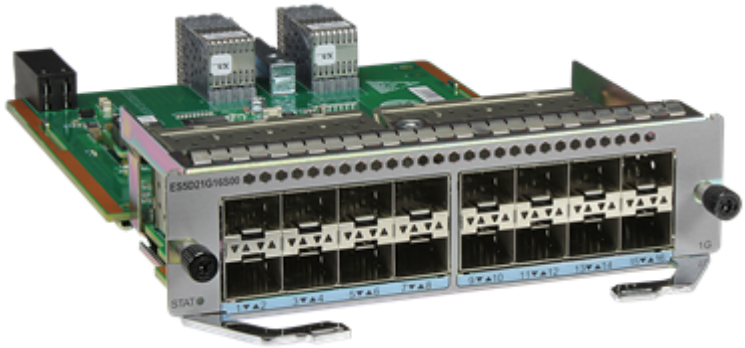
Figure 8-33 ES5D21G16S00



Functions

Table 8-74 describes functions of the ES5D21G16S00.

Table 8-74 Functions

Function	Description
Basic function	Provides sixteen GE SFP optical ports for data access and line-rate switching.
Hot swapping	Supported

Indicators and Ports

Figure 8-34 shows indicators on the ES5D21G16S00.

Figure 8-34 Indicators on the ES5D21G16S00

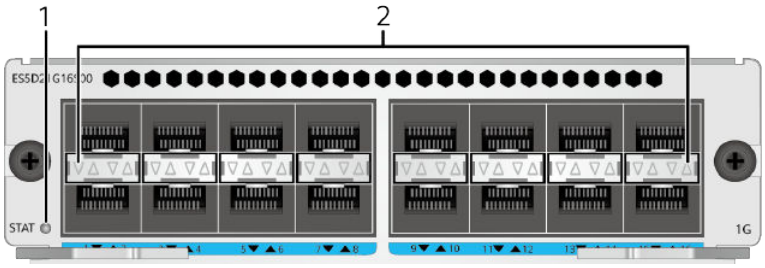


Table 8-75 describes indicator status on the ES5D21G16S00.

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Table 8-75 Description of indicators on the ES5D21G16S00

Number	Indicator	Color	Description
1	STAT	Off	The system software is not running.
		Green	• Steady on: The system is starting. • Blinking: The system is running properly.
		Red	A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention.
2	Two single-color indicators for each port • Steady green: LINK indicator • Blinking amber: ACT indicator **NOTE** 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.	Green	• Steady on: The link on the port is connected. • Off: The link on the port is disconnected.
		Yellow	• Blinking: The port is transmitting or receiving data. • Off: The port is not transmitting or receiving data.

Figure 8-35 shows the ports on the ES5D21G16S00.

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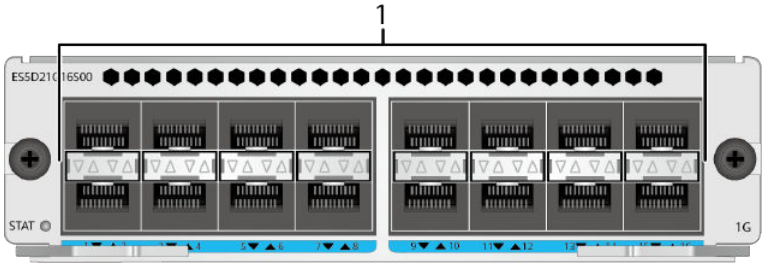
Figure 8-35 Ports on the ES5D21G16S00



1. Sixteen GE SFP optical ports

GE SFP optical port

The ES5D21G16S00 provides sixteen GE SFP optical ports to transmit and receive service data at 1 Gbit/s. **Table 8-76** lists the attributes of a GE SFP optical port.

NOTE

The optical ports on the ES5D21G16S00 support GE optical modules.

Table 8-76 Attributes of a GE SFP optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used (see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, and **10.9 GE-DWDM eSFP Optical Modules**)
Standards compliance	IEEE 802.3z

Technical Specifications

Table 8-77 lists specifications of the ES5D21G16S00.

Table 8-77 Specifications of the ES5D21G16S00

Item	Description
Physical specifications	• Dimensions (H x W x D): 39.6 mm x 145.0 mm x 233 mm (1.6 in. x 5.7 in. x 9.2 in.) • Weight: 0.7 kg (1.54 lb) • Maximum power consumption: 11.7 W

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Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-78 provides ES5D21G16S00 ordering information.

Table 8-78 Ordering information

Card Description	Card Name	Part Number
16-port GE SFP optical interface card (front card)	ES5D21G16S00	03021PED

8.14 ES5D21G16T00 (16-Port GE Front Electrical Interface Card)

Version Mapping

Table 8-79 lists the mapping between the ES5D21G16T00 card and software versions.

Table 8-79 Version mapping

Card Model	Software Version
ES5D21G16T00	V200R003C00 to V200R005C03 **NOTE** This module is not supported in V200R003C02, V200R003C10, or V200R005C01.

Card Overview

The ES5D21G16T00 provides sixteen GE electrical ports for data access and line-rate switching.

The ES5D21G16T00 can be installed in the front card slot of the S5710-108C-PWR-HI.

Figure 8-36 shows the appearance of the ES5D21G16T00.

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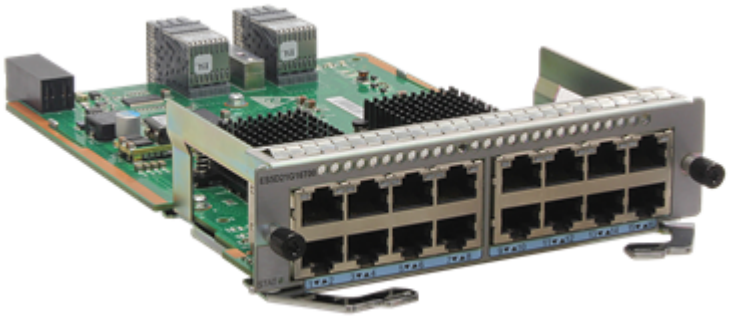
Figure 8-36 ES5D21G16T00



Functions

Table 8-80 describes functions of the ES5D21G16T00.

Table 8-80 Functions

Function	Description
Basic function	Provides sixteen GE electrical ports for data access and line-rate switching.
Hot swapping	Supported

Indicators and Ports

Figure 8-37 shows indicators on the ES5D21G16T00.

Figure 8-37 Indicators on the ES5D21G16T00

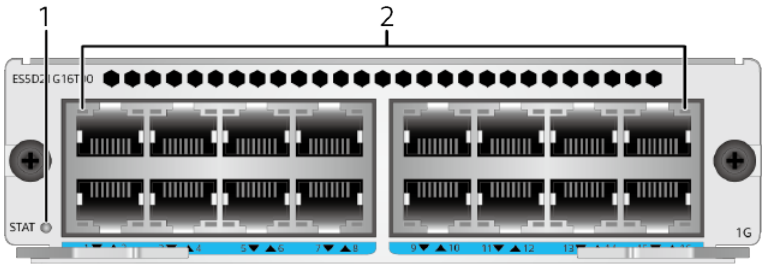


Table 8-81 describes indicator status on the ES5D21G16T00.

Table 8-81 Description of indicators on the ES5D21G16T00

Number	Indicator	Color	Description
1	STAT	Off	The system software is not running.

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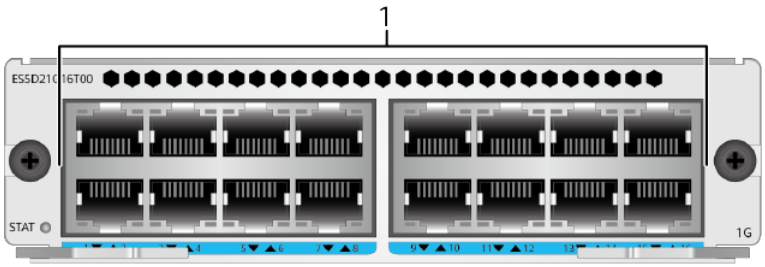
Number	Indicator	Color	Description
		Green	• Steady on: The system is starting. • Blinking: The system is running properly.
		Red	A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention.
2	One single-color indicator for each port **NOTE** The indicator on the left indicates the port at the top, and the indicator on the right indicates the port at the bottom.	Green	• Steady on: A link is established on the port. • Blinking: The port is transmitting or receiving data.
		Off	No link is established on the port.

Figure 8-38 shows the ports on the ES5D21G16T00.

Figure 8-38 Ports on the ES5D21G16T00



1. Sixteen 10M/100M/1000M BASE-T ports

10M/100M/1000M BASE-T port

The ES5D21G16T00 provides sixteen 10M/100M/1000M BASE-T ports to transmit and receive Ethernet service data. **Table 8-82** lists the attributes of a 10M/100M/1000M BASE-T port.

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Table 8-82 Attributes of a 10M/100M/1000M BASE-T port

Attribute	Description
Connector type	RJ45
Electrical port attributes	MDI/MDIX
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab

Technical Specifications

Table 8-83 lists technical specifications of the ES5D21G16T00.

Table 8-83 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 39.6 mm x 145.0 mm x 233 mm (1.6 in. x 5.7 in. x 9.2 in.) • Weight: 0.7 kg (1.54 lb) • Maximum power consumption: 9.5 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-84 provides ES5D21G16T00 ordering information.

Table 8-84 Ordering information

Card Description	Card Name	Part Number
16-port GE RJ45 interface card (front card)	ES5D21G16T00	03021NXB

8.15 ES5D21Q02Q00 (2-Port 40 Gig QSFP+ Rear Interface Card)

Version Mapping

Table 8-85 lists the mapping between the ES5D21Q02Q00 and software versions.

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Table 8-85 Version mapping

Card Model	Software Version
ES5D21Q02Q00	S5730-HI: V200R012C00 to V200R019C10 versions S5731-H and S5731S-H: V200R019C00 and later versions S5736-S: V200R020C00 and later versions S5735S-H: V200R021C01 and later versions

Card Overview

The ES5D21Q02Q00 provides two 40GE QSFP+ optical ports for data access and line-rate switching.

The ES5D21Q02Q00 can be installed in a rear card slot of the switch models listed in **Table 8-86**.

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Table 8-86 Applicable switch models

Card	Switch Model
ES5D21Q02Q00	• S5730-36C-HI • S5730-36C-PWH-HI • S5730-44C-HI (can be installed only in slot 1) • S5730-44C-PWH-HI (can be installed only in slot 1) • S5730-60C-HI • S5730-60C-PWH-HI • S5730-68C-HI (can be installed only in slot 1) • S5730-68C-PWH-HI (can be installed only in slot 1) • S5730-44C-HI-24S (can be installed only in slot 1) • S5730-36C-HI-24S • S5730-60C-HI-48S • S5730-68C-HI-48S (can be installed only in slot 1) • S5731-H24T4XC • S5731-H24P4XC • S5731-H48T4XC • S5731-H48P4XC • S5731S-H24T4XC-A • S5731S-H48T4XC-A • S5731-H24HB4XZ • S5731-H48HB4XZ • S5731S-H24HB4XZ-A • S5731S-H48HB4XZ-A • S5735S-H24S4XC-A • S5736-S24UM4XC • S5736-S24S4XC • S5736-S48S4XC

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Figure 8-39 ES5D21Q02Q00 (old)

Figure 8-40 ES5D21Q02Q00 (new)

Functions

Table 8-87 describes functions of the ES5D21Q02Q00.

Table 8-87 Functions

Function	Description
Basic functions	Provides two 40GE QSFP+ optical ports for data access and line-rate switching. Each 40GE port can be split into four 10GE ports.
Hot swapping	Supported
Service port stacking	Ports on the card can be used as stack ports. **NOTE** A 40GE port cannot be used as a stack port after it is split into four 10GE ports.

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Indicators and Ports

Figure 8-41 Indicators on the ES5D21Q02Q00 (old)

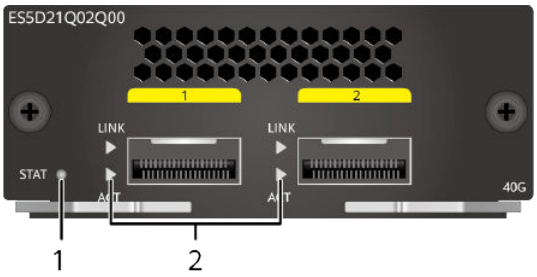

Figure 8-42 Indicators on the ES5D21Q02Q00 (new)

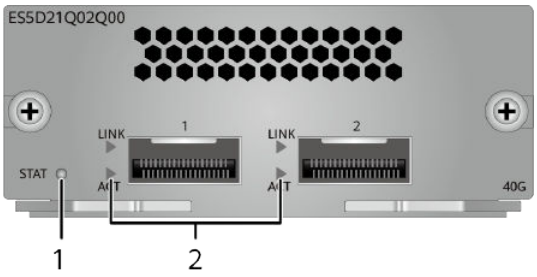

Table 8-88 describes indicators on the ES5D21Q02Q00.

Table 8-88 Indicator description

Number	Indicator	Color	Description
1	STAT	Off	The system software is not running.
		Green	• Fast blinking: The system is starting. • Slow blinking: The system is running normally.
		Red	A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention.
2	LINK	Off	No link is established on the port.
		Green	Steady on: A link is established on the port.
	ACT	Off	The port is not transmitting or receiving data.
		Yellow	Blinking: The port is transmitting or receiving data.

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Figure 8-43 Ports on the ES5D21Q02Q00 (old)

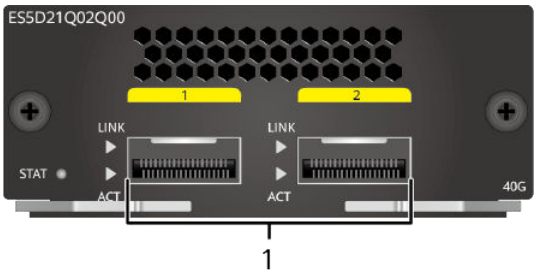
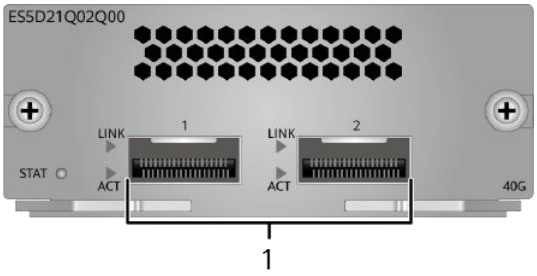


Figure 8-44 Ports on the ES5D21Q02Q00 (new)



1. Two 40GE QSFP+ optical ports

40GE QSFP+ optical port

A 40GE QSFP+ optical port sends and receives service traffic at 40 Gbit/s and can be split into four 10GE ports. After a split, the 40GE QSFP+ optical port needs to be connected to a remote device using a 1-to-4 QSFP+ fiber (with matching optical modules), a 1-to-4 QSFP+ AOC cable, or a 1-to-4 QSFP+ copper cable. **Table 8-89** lists the attributes of a 40GE QSFP+ optical port.

NOTE

Both optical ports on the ES5D21Q02Q00 support only QSFP+ optical modules, QSFP+ AOC cables (10 m; QSFP+ to QSFP+ or QSFP+ to 4*SFP+), and QSFP+ copper cables (1 m, 3 m, and 5 m; QSFP+ to QSFP+ or QSFP+ to 4*SFP+).

Table 8-89 Attributes of a QSFP+ optical port

Attribute	Description
Connector type	LC/MPO
Optical attributes	Depend on the optical module used (see **10.17 40GE QSFP+ Optical Modules**)

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Attribute	Description
Standards compliance	IEEE 802.3ba

Technical Specifications

Table 8-90 lists technical specifications of the ES5D21Q02Q00.

Table 8-90 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 40 mm x 100 mm x 208 mm (1.6 in. x 3.9 in. x 8.2 in.) • Weight: 0.92 kg (2.03 lb) • Maximum power consumption: 9 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-91 provides the ES5D21Q02Q00 ordering information.

Table 8-91 Ordering information

Card Description	Card Model	Part Number
2-port 40 Gig QSFP+ rear interface card	ES5D21Q02Q00	03024EHT

8.16 ES5D21L04Q00 (4-Port 40GE QSFP+ Optical Interface Card)

Version Mapping

Table 8-92 lists the mapping between the ES5D21L04Q00 card and software versions.

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Table 8-92 Version mapping

Card Model	Software Version
ES5D21L04Q00	V200R003C00 to V200R005C03 **NOTE** This module is not supported in V200R003C02, V200R003C10, or V200R005C01.

Card Overview

The ES5D21L04Q00 provides four 40GE QSFP+ optical ports for data access and line-rate switching.

The ES5D21L04Q00 can be installed in the front card slot of the S5710-108C-PWR-HI.

Figure 8-45 shows the appearance of the ES5D21L04Q00.

Figure 8-45 ES5D21L04Q00

Functions

Table 8-93 describes functions of the ES5D21L04Q00.

Table 8-93 Functions

Function	Description
Basic function	Provides four 40GE QSFP+ optical ports for data access and line-rate switching.
Hot swapping	Supported

Indicators and Ports

Figure 8-46 shows indicators on the ES5D21L04Q00.

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Figure 8-46 Indicators on the ES5D21L04Q00

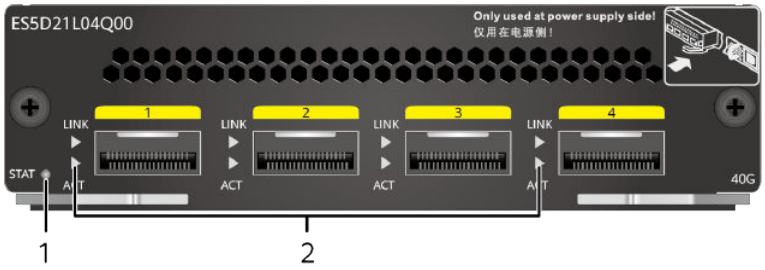


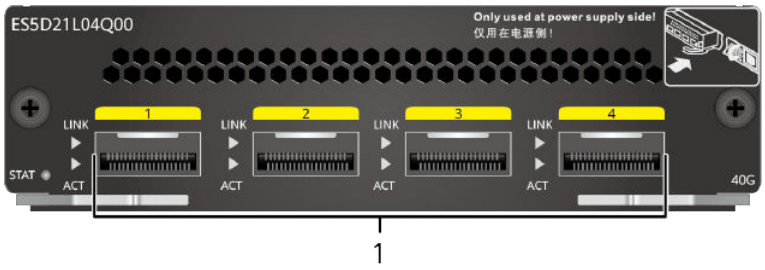
Table 8-94 describes indicator status on the ES5D21L04Q00.

Table 8-94 Description of indicators on the ES5D21L04Q00

Number	Indicator	Color	Description
1	STAT	Off	The system software is not running.
		Green	• Steady on: The system is starting. • Blinking: The system is running properly.
		Red	A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention.
2	LINK	Green	Steady on: A link is established on the port.
		Off	No link is established on the port.
	ACT	Yellow	Blinking: The port is transmitting or receiving data.
		Off	No data is transmitting or receiving on the port.

Figure 8-47 shows the ports on the ES5D21L04Q00.

Figure 8-47 Ports on the ES5D21L04Q00



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1. Four 40GE QSFP+ optical ports

40GE QSFP+ optical port

The ES5D21L04Q00 provides four 40GE QSFP+ optical ports to transmit and receive service data at 40 Gbit/s. **Table 8-95** lists the attributes of a 40GE QSFP+ optical port.

NOTE

All the optical ports on the E5D21L04Q00 support only QSFP+ optical modules and QSFP+ copper cables.

Table 8-95 Attributes of a 40GE QSFP+ optical port

Attribute	Description
Connector type	LC/MPO
Optical port attributes	Depend on the optical module used (see **10.17 40GE QSFP+ Optical Modules**)
Standards compliance	IEEE 802.3ba

Technical Specifications

Table 8-96 lists technical specifications of the ES5D21L04Q00.

Table 8-96 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 39.6 mm x 145.0 mm x 233 mm (1.6 in. x 5.7 in. x 9.2 in.) • Weight: 0.7 kg (1.54 lb) • Maximum power consumption: 25.7 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-97 provides ES5D21L04Q00 ordering information.

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Table 8-97 Ordering information

Card Description	Card Name	Part Number
4-port 40GE QSFP+ optical interface card (rear card)	ES5D21L04Q00	03021NKW

8.17 ES5D21Q04Q01 (4-Port 40 Gig QSFP+ Rear Interface Card)

Version Mapping

Table 8-98 lists the mapping between the ES5D21Q04Q01 card and software versions.

Table 8-98 Version mapping

Card Model	Software Version
ES5D21Q04Q01	S5730-SI and S5730S-EI: V200R011C10 to V200R019C10 versions S5736-S: V200R020C00 and later versions S5735S-H: V200R021C01 and later versions

Card Overview

The ES5D21Q04Q01 provides four 40GE QSFP+ optical ports for data access and line-rate switching.

The ES5D21Q04Q01 can be installed in a rear card slot of the switch models listed in Table 8-99.

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Table 8-99 Applicable switch models

Card	Switch Model
ES5D21Q04Q01	• S5730-48C-SI-AC • S5730-48C-PWR-SI-AC • S5730S-48C-EI-AC • S5730S-48C-PWR-EI • S5730-68C-SI-AC • S5730S-68C-EI-AC • S5730-68C-PWR-SI-AC • S5730-68C-PWR-SI • S5730S-68C-PWR-EI • S5735S-H24S4XC-A • S5736-S24UM4XC • S5736-S24S4XC • S5736-S48S4XC

Figure 8-48 ES5D21Q04Q01 (old)

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Figure 8-49 ES5D21Q04Q01 (new)

Functions

Table 8-100 describes functions of the card.

Table 8-100 Functions

Function	Description
Basic functions	Provides four 40GE QSFP+ optical ports for data access and line-rate switching. Each 40GE port can be split into four 10GE ports.
Hot swapping	Supported
Service port stacking	Ports on the card can be used as stack ports. **NOTE** A 40GE port cannot be used as a stack port after it is split into four 10GE ports.

Indicators and Ports

Figure 8-50 Indicators on the ES5D21Q04Q01 (old)

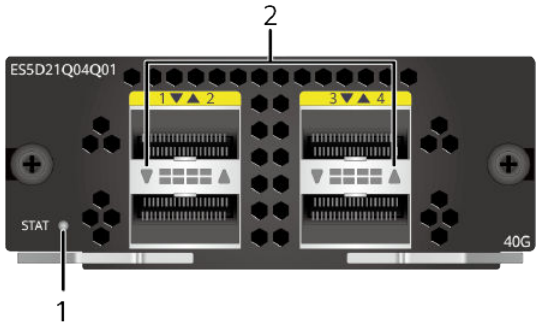

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Figure 8-51 Indicators on the ES5D21Q04Q01 (new)

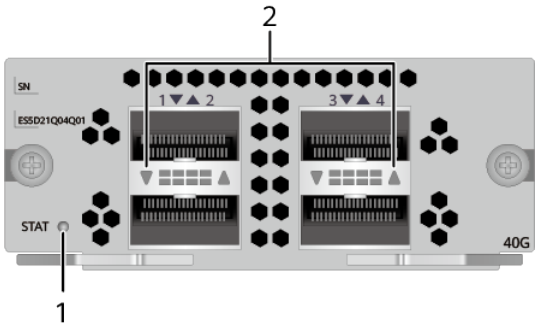

Table 8-101 Description of indicators on the card

Number	Indicator	Color	Description
1	STAT	Off	The system software is not running.
		Green	• Fast blinking: The system is starting. • Slow blinking: The system is running normally.
		Red	A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention.
2	ACT/LINK	Green	• Steady on: A link has been established on the port. • Blinking: The port is transmitting or receiving data.
		Off	No link is established on the port.

Figure 8-52 Ports on the ES5D21Q04Q01 (old)

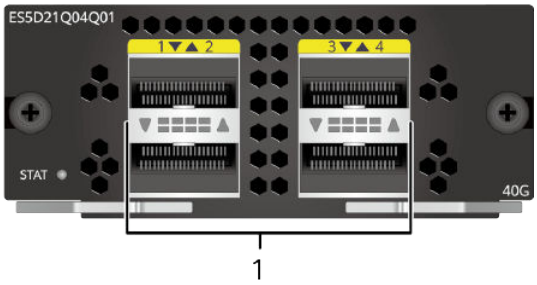

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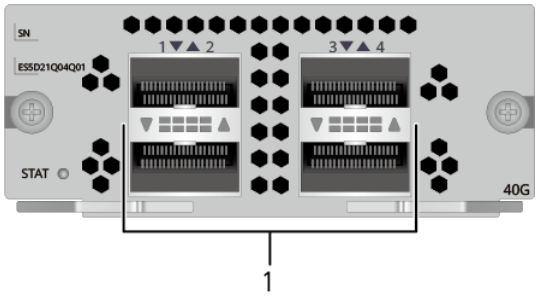
Figure 8-53 Ports on the ES5D21Q04Q01 (new)



1. Four 40GE QSFP+ optical ports

40GE QSFP+ optical port

A 40GE QSFP+ optical port sends and receives service traffic at 40 Gbit/s and can be split into four 10GE ports. After a split, the 40GE QSFP+ optical port needs to be connected to a remote device using a 1-to-4 QSFP+ fiber (with matching optical modules), a 1-to-4 QSFP+ AOC cable (applicable in V200R009C00 and later versions), or a 1-to-4 QSFP+ copper cable. **Table 8-102** lists the attributes of a 40GE QSFP+ optical port.

NOTE

All the optical ports on the card support only QSFP+ optical modules, QSFP+ AOC cables (applicable in V200R009C00 and later versions; 10 m; QSFP+ to QSFP+ or QSFP+ to 4*SFP+), and QSFP+ copper cables (1 m, 3 m, and 5 m; QSFP+ to QSFP+ or QSFP+ to 4*SFP+).

Table 8-102 Attributes of a QSFP+ optical port

Attribute	Description
Connector type	LC/MPO
Optical port attributes	Depend on the optical module used (see **10.17 40GE QSFP+ Optical Modules**)
Standards compliance	IEEE 802.3ba

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Technical Specifications

Table 8-103 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 40 mm x 100 mm x 208 mm (1.6 in. x 3.9 in. x 8.2 in.) • Weight: 0.5 kg (1.10 lb) • Maximum power consumption: 18.83 W
Environment specifications	• Operating temperature: 0°C to 45°C (32°F to 113°F) • Relative humidity: 5% RH to 95% RH • Storage temperature: -40°C to +70°C (-40°F to +158°F) **NOTE** When an ES5D21Q04Q01 card on the S5730-SI or S5730S-EI has a 40 km QSFP+ optical module installed, the operating temperature must be in the range of 0°C to 40°C.

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-104 Ordering information

Card Description	Card Name	Part Number
4-port 40 Gig QSFP+ interface card	ES5D21Q04Q01	03022RRP

8.18 ES5D21X04S00 (4-Port 10GE SFP+ Rear Optical Interface Card)

Version Mapping

Table 8-105 lists the mapping between the ES5D21X04S00 card and software versions.

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Table 8-105 Version mapping

Card Model	Software Version
ES5D21X04S00	V200R003C00 to V200R005C03 **NOTE** This module is not supported in V200R003C02, V200R003C10, or V200R005C01.

Card Overview

The ES5D21X04S00 provides four 10GE SFP+ optical ports for data access and line-rate switching. It can be installed in the rear card slot of the S5710-108C-PWR-HI.

Figure 8-54 shows the appearance of the ES5D21X04S00.

Figure 8-54 ES5D21X04S00

Functions

Table 8-106 describes functions of the ES5D21X04S00.

Table 8-106 Functions

Function	Description
Basic function	Provides four 10GE SFP+ optical ports for data access and line-rate switching.
Hot swapping	Supported

Indicators and Ports

Figure 8-55 shows indicators on the ES5D21X04S00.

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Figure 8-55 Indicators on the ES5D21X04S00

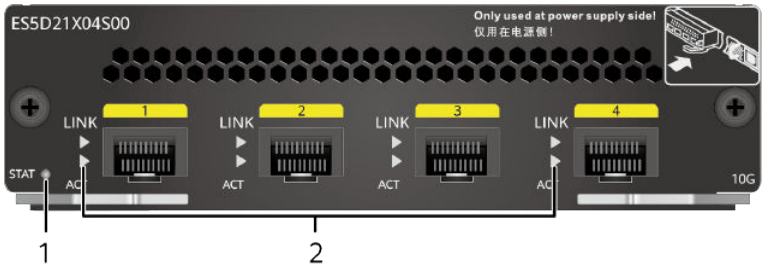


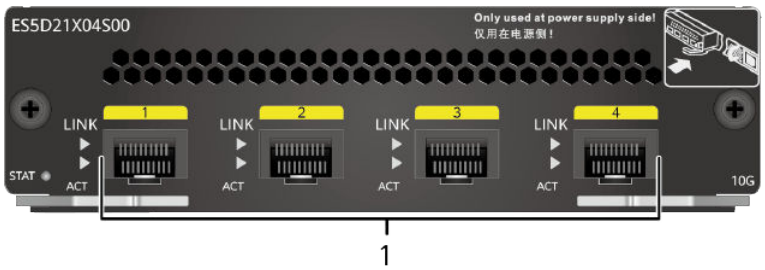
Table 8-107 describes indicator status on the ES5D21X04S00.

Table 8-107 Description of indicators on the ES5D21X04S00

Number	Indicator	Color	Description
1	STAT	Off	The system software is not running.
		Green	• Steady on: The system is starting. • Blinking: The system is running properly.
		Red	A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention.
2	LINK	Green	Steady on: A link is established on the port.
		Off	No link is established on the port.
	ACT	Yellow	Blinking: The port is transmitting or receiving data.
		Off	No data is transmitting or receiving on the port.

Figure 8-56 shows the ports on the ES5D21X04S00.

Figure 8-56 Ports on the ES5D21X04S00



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1. Four 10GE SFP+ optical ports

10GE SFP+ optical port

The ES5D21X04S00 provides four 10GE SFP+ optical ports to transmit and receive service data at 10 Gbit/s. **Table 8-108** lists the attributes of a 10GE SFP+ optical port.

NOTE

The four optical ports on the ES5D21X04S00 support only 10GE SFP+ optical modules, SFP+ copper cables, and AOC cables.

Table 8-108 Attributes of a 10GE SFP+ optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used (see **10.13 10GE SFP+ Optical Modules** and **10.14 10GE-CWDM SFP + Optical Modules**)
Standards compliance	IEEE 802.3ae

Technical Specifications

Table 8-109 lists technical specifications of the ES5D21X04S00.

Table 8-109 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 39.6 mm x 145.0 mm x 233 mm (1.6 in. x 5.7 in. x 9.2 in.) • Weight: 0.7 kg (1.54 lb) • Maximum power consumption: 11.23 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-110 provides the ES5D21X04S00 ordering information.

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Table 8-110 Ordering information

Card Description	Card Name	Part Number
4-port 10GE SFP+ optical interface card (rear card)	ES5D21X04S00	03021PHQ

8.19 ES5D21X04S01 (4-Port 10 GE SFP+ Rear Interface Card)

Version Mapping

Table 8-111 lists the mapping between the card and software versions.

Table 8-111 Version mapping

Card Model	Software Version
ES5D21X04S01	V200R006C00 to V200R019C10 versions

Card Overview

The ES5D21X04S01 provides four 10GE SFP+ optical ports for data access and line-rate switching.

The ES5D21X04S01 can be installed in rear card slot 2 of the S5720-HI.

Table 8-112 Applicable switch models

Card	Switch Model
ES5D21X04S01	• S5720-32C-HI-24S-AC • S5720-56C-HI-AC • S5720-56C-PWR-HI-AC • S5720-56C-PWR-HI-AC1

Figure 8-57 ES5D21X04S01

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Functions

Table 8-113 Functions

Function	Item
Basic function	Provides four 10GE SFP+ optical ports for data access and line-rate switching.
Hot swapping	Supported
Service ports for stacking	The service ports on the card can be used as stack ports. **NOTE** The S5720-HI has supported service port-based stacking since V200R009C00.

Indicators and Ports

Figure 8-58 Indicators on the ES5D21X04S01

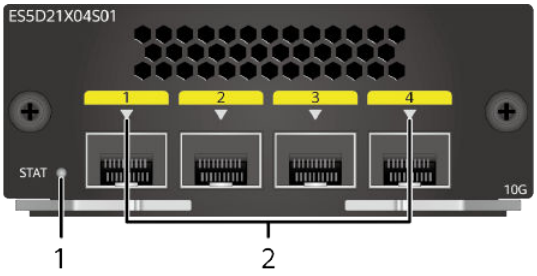

Table 8-114 Description of indicators

Number	Indicator	Color	Description
1	STAT	Off	The system software is not running.
		Green	• Fast blinking: The system is starting. • Slow blinking: The system is running properly.
		Red	A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention.

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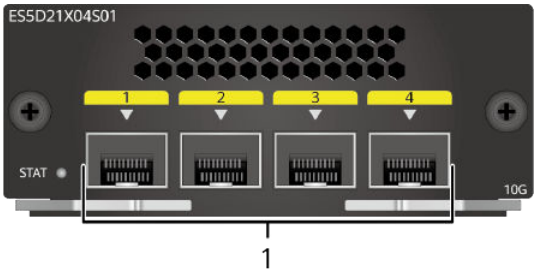
Number	Indicator	Color	Description
2	ACT/LINK	Green	• Steady on: A link is established on the port. • Blinking: The port is transmitting or receiving data.
		Off	No link is established on the port.

Figure 8-59 Ports on the ES5D21X04S01



1. Four 10GE SFP+ optical ports

10GE SFP+ optical port

The card provides four 10GE SFP+ optical ports to transmit and receive service data at 10 Gbit/s. **Table 8-115** lists the attributes of a 10GE SFP+ optical port.

NOTE

When the card is installed on the S5720-HI, the four 10GE SFP+ optical ports support only 10GE SFP+ optical modules, SFP+ cables (1 m, 3 m, 5 m, and 10 m; SFP+ to SFP+), and AOC cables (3 m and 10 m; SFP+ to SFP+).

Table 8-115 Attributes of a 10GE SFP+ optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used (see **10.13 10GE SFP+ Optical Modules**, **10.14 10GE-CWDM SFP+ Optical Modules**, and **10.15 10GE-DWDM SFP+ Optical Modules**)
Standards compliance	IEEE 802.3ae

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Technical Specifications

Table 8-116 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 40 mm x 100 mm x 208 mm (1.6 in. x 3.9 in. x 8.2 in.) • Weight: 0.76 kg (1.68 lb) • Maximum power consumption: 9.95 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-117 provides ordering information of the card.

Table 8-117 Ordering information

Card Description	Card Name	Part number
4-port 10 GE SFP+ rear interface card	ES5D21X04S01	03022MDR

8.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series)

Version Mapping

Table 8-118 lists the mapping between the ES5D21X02S01 card and software versions.

Table 8-118 Version mapping

Card Model	Software Version
ES5D21X02S01	V200R007C00 to V200R019C10 versions **NOTE** This module is not supported in V200R007C10.

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Card Overview

The ES5D21X02S01 provides two 10GE SFP+ optical ports for data access and line-rate switching. It can be installed in a rear card slot of the switch models listed in Table 8-119.

Table 8-119 Applicable switch models

Card	Switch Model
ES5D21X02S01	S5720-C-EI and S5720-PC-EI series

Figure 8-60 shows the appearance of the ES5D21X02S01.

Figure 8-60 ES5D21X02S01

Functions

Table 8-120 describes functions of the ES5D21X02S01.

Table 8-120 Functions

Function	Item
Basic function	Provides two 10GE SFP+ optical ports for data access and line-rate switching.
Hot swapping	Supported
Service port stacking	Ports on the card can be used as stack ports.

Indicators and Ports

Figure 8-61 shows indicators on the ES5D21X02S01.

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Figure 8-61 Indicators on the ES5D21X02S01

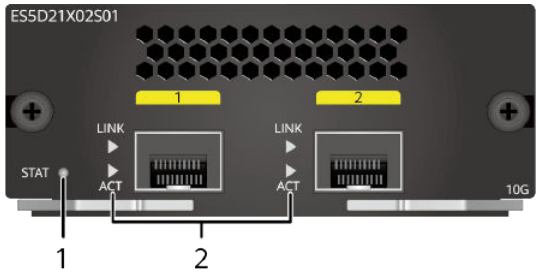


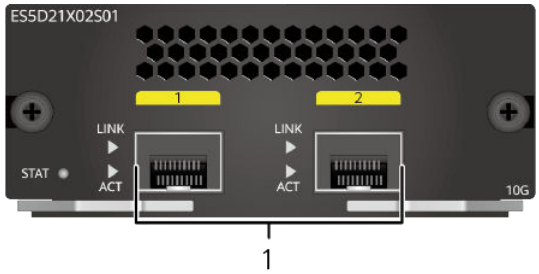
Table 8-121 describes indicators on the ES5D21X02S01.

Table 8-121 Description of indicators on the ES5D21X02S01

Number	Indicator	Color	Description
1	STAT	Off	The system software is not running.
		Green	• Fast blinking: The system is starting. • Slow blinking: The system is running normally.
		Red	A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention.
2	LINK	Off	No link is established on the port.
		Green	Steady on: A link is established on the port.
	ACT	Off	The port is not transmitting or receiving data.
		Yellow	Blinking: The port is transmitting or receiving data.

Figure 8-62 shows the ports on the ES5D21X02S01.

Figure 8-62 Ports on the ES5D21X02S01



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1. Two 10GE SFP+ optical ports

10GE SFP+ optical port

10GE SFP+ optical ports on the ES5D21X02S01 can only transmit and receive service data at 10 Gbit/s. **Table 8-122** lists the attributes of a 10GE SFP+ optical port.

NOTE

The two optical ports on the ES5D21X02S01 support only 10GE SFP+ optical modules, SFP+ copper cables (1 m, 3 m, 5 m, and 10 m; SFP+ to SFP+), and AOC cables (3 m and 10 m; SFP+ to SFP+).

Table 8-122 Attributes of a 10GE SFP+ optical port

Attribute	Item
Connector type	LC/PC
Optical port attributes	Depend on the optical module used (see **10.13 10GE SFP+ Optical Modules** , **10.14 10GE-CWDM SFP+ Optical Modules**, and **10.15 10GE-DWDM SFP+ Optical Modules**)
Standards compliance	IEEE 802.3ae

Technical Specifications

Table 8-123 lists technical specifications of the ES5D21X02S01.

Table 8-123 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 40 mm x 100 mm x 208 mm (1.6 in. x 3.9 in. x 8.2 in.) • Weight: 0.78 kg (1.72 lb) • Maximum power consumption: 8 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

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Table 8-124 provides the ES5D21X02S01 ordering information.

Table 8-124 Ordering information

Card Description	Card Name	Part Number
2-port 10 Gig SFP+ interface card, used in S5720-EI series (rear card)	ES5D21X02S01	03022RMH

8.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series)

Version Mapping

Table 8-125 lists the mapping between the ES5D21X02T01 card and software versions.

Table 8-125 Version mapping

Card Model	Software Version
ES5D21X02T01	V200R007C00 to V200R019C10 versions **NOTE** This module is not supported in V200R007C10.

Card Overview

The ES5D21X02T01 provides two 10GBASE-T RJ45 electrical ports for data access and line-rate switching. It can be installed in a rear card slot of the switch models listed in Table 8-126.

Table 8-126 Applicable switch models

Card	Switch Model
ES5D21X02T01	S5720-C-EI and S5720-PC-EI series

Figure 8-63 shows the appearance of the ES5D21X02T01.

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Figure 8-63 ES5D21X02T01

Functions

Table 8-127 describes functions of the ES5D21X02T01.

Table 8-127 Functions

Function	Item
Basic function	Provides two 10GE RJ45 electrical ports for data access and line-rate switching.
Hot swapping	Supported
Service port stacking	Ports on the card can be used as stack ports.

Indicators and Ports

Figure 8-64 shows indicators on the ES5D21X02T01.

Figure 8-64 Indicators on the ES5D21X02T01

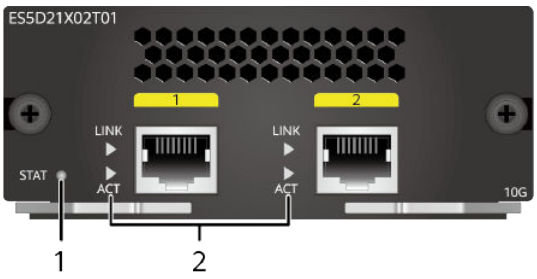

Table 8-128 describes indicators on the ES5D21X02T01.

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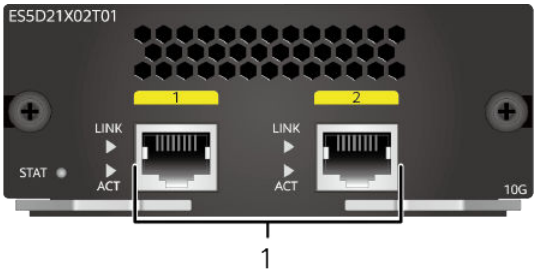
Table 8-128 Description of indicators on the ES5D21X02T01

Number	Indicator	Color	Description
1	STAT	Off	The system software is not running.
		Green	• Fast blinking: The system is starting. • Slow blinking: The system is running normally.
		Red	A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention.
2	LINK	Off	No link is established on the port.
		Green	Steady on: A link is established on the port.
	ACT	Off	The port is not transmitting or receiving data.
		Yellow	Blinking: The port is transmitting or receiving data.

Figure 8-65 shows the ports on the ES5D21X02T01.

Figure 8-65 Ports on the ES5D21X02T01



1. Two 10GBASE-T RJ45 electrical ports

10GBASE-T RJ45 electrical port

The two 10GBASE-T RJ45 electrical ports on the ES5D21X02T01 can only transmit services at 10 Gbit/s and cannot work at 100 Mbit/s or 1000 Mbit/s. Category 6A shielded twisted pair (STP) cables are recommended for the ports. **Table 8-129** lists the attributes of a 10GBASE-T RJ45 electrical port.

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Table 8-129 Attributes of a 10GBASE-T RJ45 electrical port

Attribute	Item
Connector type	RJ45
Working Mode	10 Gbit/s
Standards compliance	IEEE802.3an, IEEE802.3az

Table 8-130 lists the maximum transmission distances of different cables on 10GBASE-T RJ45 ports.

Table 8-130 Maximum transmission distances of different cables on 10GBASE-T RJ45 ports

Cable Type (6-a-1 Bundle)	10GBASE-T RJ45 Port
Cat6A U/UTP	Not supported
Cat6A F/UTP	100 m
Cat6A STP	100 m
Cat7	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.

Technical Specifications

Table 8-131 lists technical specifications of the ES5D21X02T01.

Table 8-131 Technical Specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 40 mm x 100 mm x 208 mm (1.57 in. x 3.9 in. x 8.2 in.) • Weight: 0.78 kg (1.72 lb) • Maximum power consumption: 16 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

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Table 8-132 provides the ES5D21X02T01 ordering information.

Table 8-132 Ordering information

Card Description	Card Name	Part Number
2-port 10GBASE-T RJ45 interface card, used in S5720-EI series (rear card)	ES5D21X02T01	03022RMK

8.22 ES5D21X08S00 (8-Port 10GE SFP+ Rear Optical Interface Card)

Version Mapping

Table 8-133 lists the mapping between the ES5D21X08S00 card and software versions.

Table 8-133 Version mapping

Card Model	Software Version
ES5D21X08S00	S5730-HI: V200R012C00 to V200R019C10 versions

Card Overview

The ES5D21X08S00 provides eight 10GE SFP+ optical ports for data access and line-rate switching.

The ES5D21X08S00 can be installed in a rear card slot of the switch models listed in Table 8-134.

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Table 8-134 Applicable switch models

Card	Switch Model
ES5D21X08S00	• S5730-36C-HI • S5730-36C-PWH-HI • S5730-44C-HI (can be installed only in slot 1) • S5730-44C-PWH-HI (can be installed only in slot 1) • S5730-60C-HI • S5730-60C-PWH-HI • S5730-68C-HI (can be installed only in slot 1) • S5730-68C-PWH-HI (can be installed only in slot 1) • S5730-44C-HI-24S (can be installed only in slot 1) • S5730-36C-HI-24S • S5730-60C-HI-48S • S5730-68C-HI-48S (can be installed only in slot 1)

Figure 8-66 ES5D21X08S00

Functions

Table 8-135 Functions

Function	Description
Basic function	Provides eight 10GE SFP+ optical ports for data access and line-rate switching.

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Function	Description
Hot swapping	Supported
Service ports for stacking	The service ports on the card can be used as stack ports. **NOTE** Only supported on the S5730-HI.

Indicators and Ports

Figure 8-67 Indicators on the ES5D21X08S00

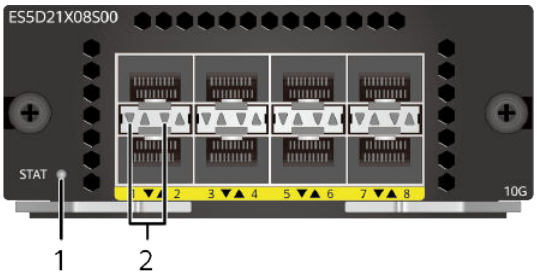

Table 8-136 Indicator description

No.	Indicator	Color	Description
1	STAT	Off	The system software is not running.
		Green	• Fast blinking: The system is starting. • Slow blinking: The system is running properly.
		Red	A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention.
2	Two single-color indicators for each port • Steady green: LINK indicator	Green	• Steady on: A link is established on the port. • Off: No link is established on the port.

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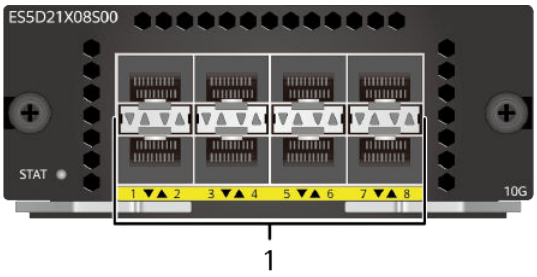
No.	Indicator	Color	Description
	• Blinking yellow: ACT indicator **NOTE** Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.	Yellow	• Blinking: The port is transmitting or receiving data. • Off: No data is transmitting or receiving on the port.

Figure 8-68 Ports on the ES5D21X08S00



1. Eight 10GE SFP+ optical ports

10GE SFP+ optical port

The ES5D21X08S00 provides 10GE SFP+ optical ports to transmit and receive service data at 1 Gbit/s or 10 Gbit/s. **Table 8-137** lists the attributes of a 10GE SFP + optical port.

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NOTE

When the card is installed on the S5730-60C-HI, S5730-60C-PWH-HI, S5730-68C-HI, S5730-68C-PWH-HI, S5730-60C-HI-48S, or S5730-68C-HI-48S, ports 1 to 4 on the card only support the rate of 10 Gbit/s, and ports 5 to 8 support 1 Gbit/s and 10 Gbit/s.

When the card is installed on the S5730-36C-HI, S5730-36C-PWH-HI, S5730-44C-HI, S5730-44C-PWH-HI, S5730-36C-HI-24S, or S5730-44C-HI-24S, all ports on the card support 1 Gbit/s and 10 Gbit/s.

The 10GE SFP+ optical ports support GE optical modules (a maximum transmission distance of 40 km), GE copper modules, 10GE SFP+ optical modules (a maximum transmission distance of 10 km), SFP+ cables (1 m, 3 m, 5 m, and 10 m; SFP+ to SFP+), and AOC cables (3 m and 10 m; SFP+ to SFP+).

Table 8-137 Attributes of a 10GE SFP+ optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module. For details, see **10.5 GE eSFP Optical Modules** (a maximum transmission distance of 40 km), **10.10 GE SFP Copper Modules**, and **10.13 10GE SFP + Optical Modules** (a maximum transmission distance of 10 km).
Standards compliance	IEEE 802.3ae

Technical Specifications

Table 8-138 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 40 mm x 100 mm x 208 mm (1.57 in. x 3.94 in. x 8.19 in.) • Weight: 0.26 kg (0.57 lb) • Maximum power consumption: 35.8 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-139 provides the ES5D21X08S00 ordering information.

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Table 8-139 Ordering information

Card Description	Card Model	Part Number
8-port 10GE SFP+ rear optical interface card	ES5D21X08S00	98010738

8.23 ES5D21X08T00 (8-Port 10GBASE-T RJ45 Rear Interface Card)

Version Mapping

Table 8-140 lists the mapping between the ES5D21X08T00 and software versions.

Table 8-140 Version mapping

Card Model	Software Version
ES5D21X08T00	S5730-HI: V200R012C00 to V200R019C10 versions S5731-H and S5731S-H: V200R019C00 and later versions

Card Overview

The ES5D21X08T00 provides eight 10GBASE-T RJ45 ports for data access and line-rate switching. It can be installed in a rear card slot of the switch models listed in Table 8-141.

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Table 8-141 Applicable switch models

Card	Switch Model
ES5D21X08T00	• S5730-36C-HI • S5730-44C-HI (can be installed only in slot 1) • S5730-36C-PWH-HI • S5730-44C-PWH-HI (can be installed only in slot 1) • S5730-60C-HI • S5730-68C-HI (can be installed only in slot 1) • S5730-60C-PWH-HI • S5730-68C-PWH-HI (can be installed only in slot 1) • S5730-44C-HI-24S (can be installed only in slot 1) • S5730-36C-HI-24S • S5730-60C-HI-48S • S5730-68C-HI-48S (can be installed only in slot 1) • S5731-H24T4XC • S5731-H24P4XC • S5731-H48T4XC • S5731-H48P4XC • S5731S-H24T4XC-A • S5731S-H48T4XC-A • S5731-H24HB4XZ • S5731-H48HB4XZ • S5731S-H24HB4XZ-A • S5731S-H48HB4XZ-A

Figure 8-69 ES5D21X08T00 (old)

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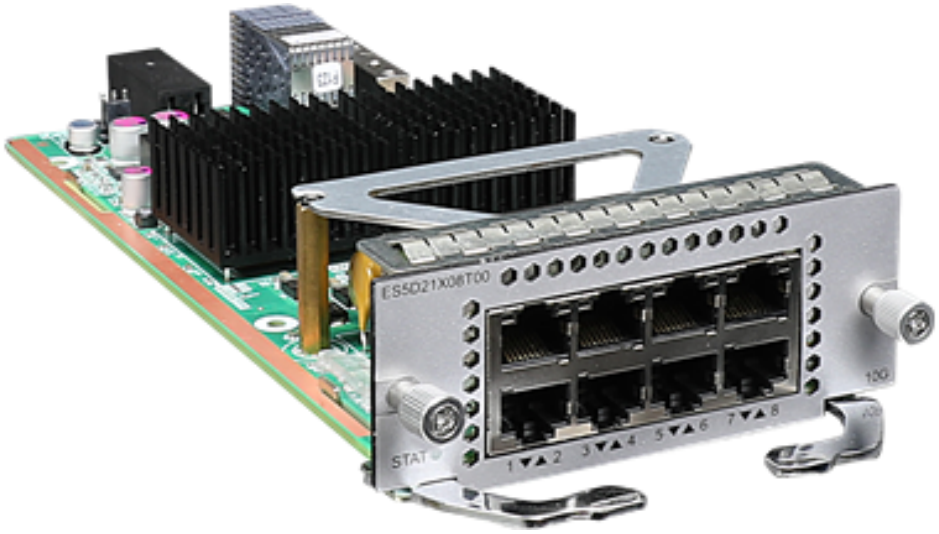
Figure 8-70 ES5D21X08T00 (new)



Functions

Table 8-142 describes functions of the ES5D21X08T00.

Table 8-142 Functions

Function	Description
Basic function	Provides eight 10GE RJ45 ports for data access and line-rate switching.
Hot swapping	Supported
Service ports for stacking	The service ports on the card can be used as stack ports.

Indicators and Ports

Figure 8-71 Indicators on the ES5D21X08T00 (old)

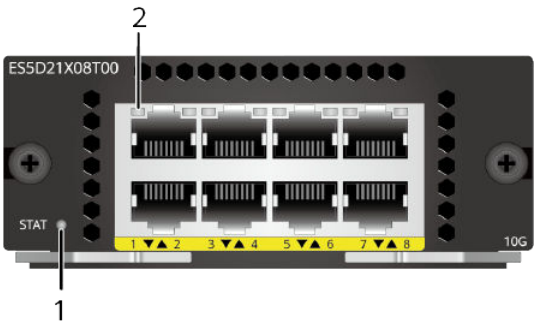


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Figure 8-72 Indicators on the ES5D21X08T00 (new)

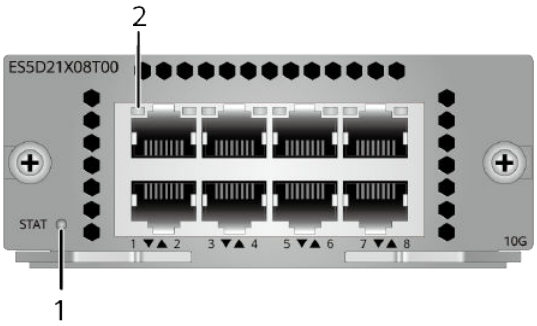

Table 8-143 shows indicators on the ES5D21X08T00.

Table 8-143 Indicator description

No.	Indicator	Color	Description
1	STAT	Off	The system software is not running.
		Green	• Fast blinking: The system is starting. • Slow blinking: The system is running properly.
		Red	A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention.
2	ACT/LINK	Off	No link is established on the port.
		Green	Steady on: A link has been established on the port. Blinking: The port is transmitting or receiving data.

Figure 8-73 Ports on the ES5D21X08T00 (old)

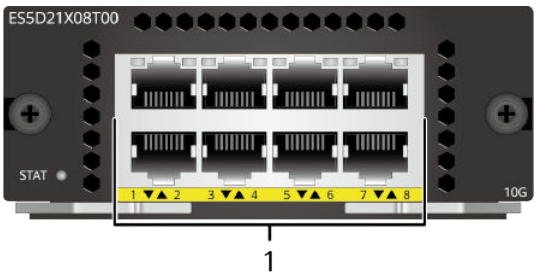

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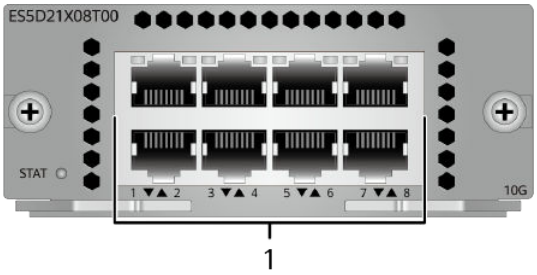
Figure 8-74 Ports on the ES5D21X08T00 (new)



1. Eight 10GBASE-T RJ45 ports

10GBASE-T RJ45 port

The ES5D21X08T00 provides eight 10GBASE-T RJ-45 electrical ports. The first four electrical ports support only 10 Gbit/s. The last four electrical ports support only 10 Gbit/s in versions earlier than V200R019C00, and also support 100 Mbit/s and 1000 Mbit/s in auto-negotiation mode in V200R019C00 and later versions. When the ports work at 10 Gbit/s, Category 6A shielded Ethernet cables are recommended. **Table 8-144** lists the attributes of a 10GBASE-T RJ45 port.

Table 8-144 Attributes of a 10GBASE-T RJ45 port

Attribute	Item
Connector type	RJ45
Standards compliance	IEEE802.3an, IEEE802.3az

Table 8-145 lists the maximum transmission distances of different cables on 10GBASE-T RJ45 ports.

Table 8-145 Maximum transmission distances of different cables on 10GBASE-T RJ45 ports

Cable Type (6-a-1 Bundle)	10GBASE-T RJ45 Port
Cat6A U/UTP	Not supported
Cat6A F/UTP	100 m
Cat6A STP	100 m
Cat7	100 m

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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.

If a port works at a rate of 10 Gbit/s and a Cat6A shielded Ethernet cable is used, the Ethernet cable must comply with ISO 11801 PL2 Class Ea (+All) or TIA Cat6A Channel (+All). Otherwise, serious problems such as continuous packet loss or interface flapping may occur.

If Cat5E, Cat6, or Cat6A unshielded twisted pairs are used on electrical ports working at 10 Gbit/s, severe problems such as continuous packet loss or port flapping may occur.

Technical Specifications

Table 8-146 lists technical specifications of the ES5D21X08T00.

Table 8-146 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 40 mm x 100 mm x 208 mm (1.6 in. x 3.9 in. x 8.2 in.) • Weight: 0.26 kg (0.57 lb) • Maximum power consumption: 22.1 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-147 provides the ES5D21X08T00 ordering information.

Table 8-147 Ordering information

Card Description	Card Model	Part Number
8-port 10GBASE-T RJ45 rear interface card	ES5D21X08T00	98010736

8.24 S7X08000 (02312URW/02312URW-002: 8-Port 10GE SFP+ or 2-Port 25GE SFP28 Optical Interface Card (Only Ports 1 and 2 Support 25GE))

Version Mapping

Table 8-148 lists the mapping between the S7X08000 card and software versions.

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Table 8-148 Version mapping

Card Model	Part Number	Software Version
S7X08000	02312URW	S5731-H, S5731S-H, and S5732-H: V200R019C10 and later versions S5735S-H: V200R021C01 and later versions S5736-S: V200R020C10 and later versions
	02312URW-002	S5731-H and S5731S-H: V200R021C10SPC600 and later versions (If V200R021C10SPC500 is used, install V200R021HP0121 or a later patch. If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch. After installing the patch, remove and insert the card again to register the card.) S5732-H: V200R021C10SPC600 and later versions (If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch. After installing the patch, remove and insert the card again to register the card.) S5735S-H: V200R021C10SPC600 and later versions S5736-S: V200R021C10SPC600 and later versions (If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch. After installing the patch, remove and insert the card again to register the card.) **NOTE** If this card is used on the S5731-H24HB4XZ, S5731-H48HB4XZ, S5731S-H24HB4XZ-A, S5731S-H48HB4XZ-A, or S5732-H48XUM2CC, the initial version is V200R021C10SPC600 and does not support patches with earlier versions.

Card Overview

The S7X08000 provides eight 10GE SFP+ optical ports for data access and line-rate switching by default. The port mode can be changed. After the change, the first two ports are 25GE ports, and the last six ports become unavailable.

The S7X08000 can be installed in a rear card slot of the switch models listed in **Table 8-149**.

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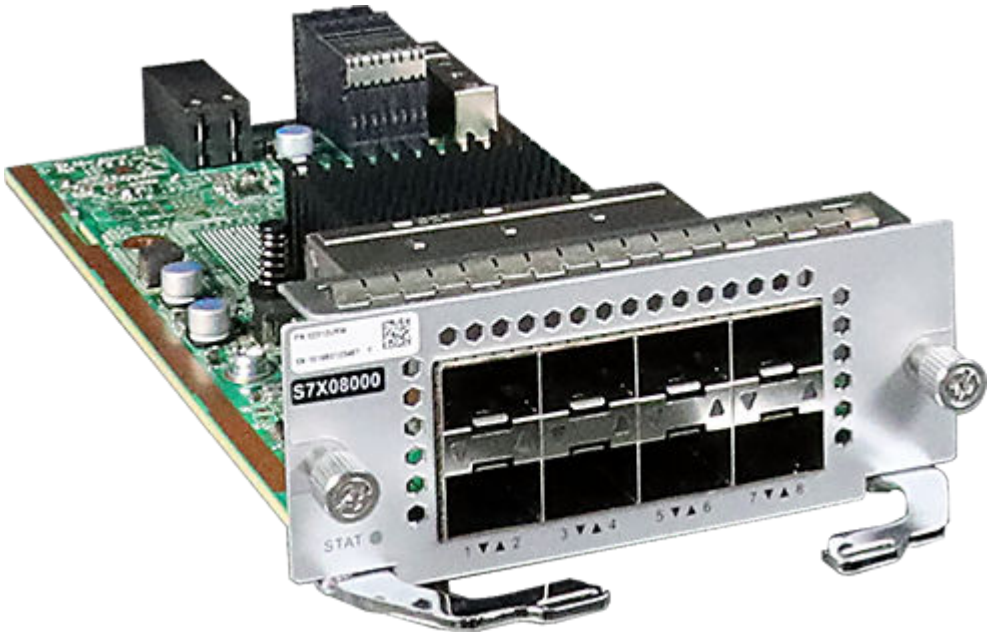
Table 8-149 Applicable switch models

Card	Switch Model
S7X08000	• S5731-H24T4XC • S5731-H24P4XC • S5731-H48T4XC • S5731-H48P4XC • S5731S-H24T4XC-A • S5731S-H48T4XC-A • S5731-H24HB4XZ • S5731-H48HB4XZ • S5731S-H24HB4XZ-A • S5731S-H48HB4XZ-A • S5732-H24UM2CC • S5732-H48UM2CC • S5732-H48XUM2CC • S5735S-H24S4XC-A • S5736-S24UM4XC • S5736-S24S4XC • S5736-S48S4XC

Figure 8-75 S7X08000



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Functions

Table 8-150 Functions

Function	Description
Basic function	Provides eight 10GE SFP+ optical ports for data access and line-rate switching by default. You can run the **set card port-config-mode 25g-port enable** command to change the port mode. After this command is configured, the first two ports are 25GE ports and the last six ports become unavailable.
Hot swapping	Supported
Service ports for stacking	The service ports on the card can be used as stack ports.

Indicators and Ports

Figure 8-76 Indicators on the S7X08000

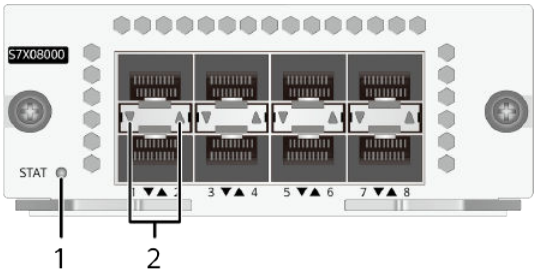

Table 8-151 Indicator description

No.	Indicator	Color	Description
1	STAT	Off	The system software is not running.
		Green	• Fast blinking: The system is starting. • Slow blinking: The system is running properly.
		Red	A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention.

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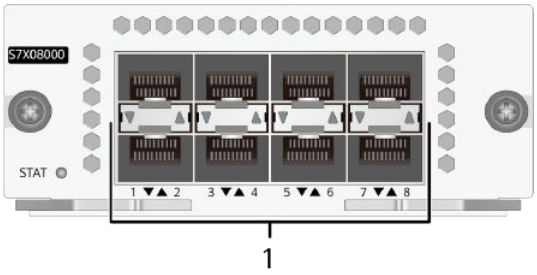
No.	Indicator	Color	Description
2	ACT/LINK	Green	• Steady on: A link is established on the port. • Blinking: The port is sending or receiving data.
		Off	No link is established on the port.

Figure 8-77 Ports on the S7X08000



1. Eight 10GE SFP+ optical ports, supporting 10GE/GE

You can run the **set card port-config-mode 25g-port enable** command to change the port mode. After this command is configured, the first two ports are 25GE SFP28 optical ports, and the last six ports become unavailable.

10GE SFP+ optical port

The S7X08000 provides 10GE SFP+ optical ports to transmit and receive service data at 10 Gbit/s or 1 Gbit/s. **Table 8-152** lists the attributes of a 10GE SFP+ optical port.

NOTE

When the card is installed on the S5731-H, S5731S-H, and S5732-H, the 10GE SFP+ optical ports support GE optical modules, GE copper modules, 10GE SFP+ optical modules, SFP+ copper cables (1 m, 3 m, 5 m, and 10 m; SFP+ to SFP+), AOC cables (3 m and 10 m; SFP+ to SFP+), and SFP+ dedicated stack cables (supported only on the S5732-H24UM2CC and S5732-H48UM2CC).

When the card is installed on the S5735S-H and S5736-S, the 10GE SFP+ optical ports support GE optical modules, GE copper modules, 10GE SFP+ optical modules (the maximum transmission distance cannot exceed 10 km), SFP+ copper cables (1 m, 3 m, 5 m, and 10 m; SFP+ to SFP+), and AOC cables (3 m and 10 m; SFP+ to SFP+).

Table 8-152 Attributes of a 10GE SFP+ optical port

Attribute	Description
Connector type	LC/PC

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Attribute	Description
Optical port attributes	Depend on the optical module. For details, see **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, **10.10 GE SFP Copper Modules**, **10.13 10GE SFP+ Optical Modules**, **10.14 10GE-CWDM SFP+ Optical Modules**, and **10.15 10GE-DWDM SFP+ Optical Modules**.

25GE SFP28 optical port

The S7X08000 provides 25GE SFP28 optical ports to transmit and receive service data at 25 Gbit/s, 10 Gbit/s, or 1 Gbit/s. **Table 8-153** lists the attributes of a 25GE SFP28 optical port.

NOTE

- When the card is installed on the S5731-H, S5731S-H, and S5732-H, the 25GE SFP28 optical ports support 25GE optical modules, SFP28 copper cables (1 m, 3 m, and 5 m; SFP28 to SFP28), SFP28 AOC cables (3 m, 5 m, 7 m, and 10 m; SFP28 to SFP28), GE optical modules, GE copper modules, 10GE SFP+ optical modules, SFP+ copper cables (1 m, 3 m, 5 m, and 10 m; SFP+ to SFP+), and AOC cables (3 m and 10 m; SFP+ to SFP+).
- When the card is installed on the S5735S-H and S5736-S, the 25GE SFP28 optical ports support 25GE optical modules, SFP28 copper cables (1 m, 3 m, and 5 m; SFP28 to SFP28), SFP28 AOC cables (3 m, 5 m, 7 m, and 10 m; SFP28 to SFP28), GE optical modules, GE copper modules, 10GE SFP+ optical modules (the maximum transmission distance cannot exceed 10 km), SFP+ copper cables (1 m, 3 m, 5 m, and 10 m; SFP+ to SFP+), and AOC cables (3 m and 10 m; SFP+ to SFP+).
- When a 25GE optical module or cable is connected to a 25GE SFP28 optical port, the port can automatically adjust its rate to 25 Gbit/s.
- When a 10GE optical module or cable is connected to a 25GE SFP28 optical port, the port can automatically adjust its rate to 10 Gbit/s.
- Before installing a GE optical module or copper module on a 25GE SFP28 optical port, run the **port mode ge** command to configure the port to work at 1 Gbit/s.

Table 8-153 Attributes of a 25GE SFP28 optical port

Attribute	Description
Connector type	LC/PC

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Attribute	Description
Optical port attributes	Depend on the optical module. For details, see **10.16 25GE SFP28 Optical Modules**, **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, **10.10 GE SFP Copper Modules**, **10.13 10GE SFP+ Optical Modules**, **10.14 10GE-CWDM SFP+ Optical Modules**, and **10.15 10GE-DWDM SFP+ Optical Modules**.

Technical Specifications

Table 8-154 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 40 mm x 100 mm x 208 mm (1.57 in. x 3.94 in. x 8.19 in.) • Weight: 0.44 kg (0.97 lb) • Maximum power consumption: 33 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-155 provides the S7X08000 ordering information.

Table 8-155 Ordering information

Card Description	Card Model	Part Number
8-port 10GE SFP+ or 2-port 25GE SFP28 optical interface card (only ports 1 and 2 support 25GE)	S7X08000	02312URW 02312URW-002

8.25 S7Y08000 (02312URV/02312URV-002: 8-Port 25GE SFP28 Optical Interface Card)

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Version Mapping

Table 8-156 lists the mapping between the S7Y08000 card and software versions.

Table 8-156 Version mapping

Card Model	Part Number	Software Version
S7Y08000	02312URV	V200R019C10SPC500 and later versions
	02312URV-002	V200R021C10SPC600 and later versions (If V200R021C00SPC100 is used, install V200R021SPH013 or a later patch. After installing the patch, remove and insert the card again to register the card.) **NOTE** If this card is used on the S5732-H48XUM2CC, the initial version is V200R021C10SPC600 and does not support patches with earlier versions.

Card Overview

The S7Y08000 provides eight 25GE SFP28 optical ports for data access and switching by default.

The S7Y08000 can be installed in a rear card slot of the switch models listed in Table 8-157.

Table 8-157 Applicable switch models

Card	Switch Model
S7Y08000	• S5732-H24UM2CC • S5732-H48UM2CC • S5732-H48XUM2CC

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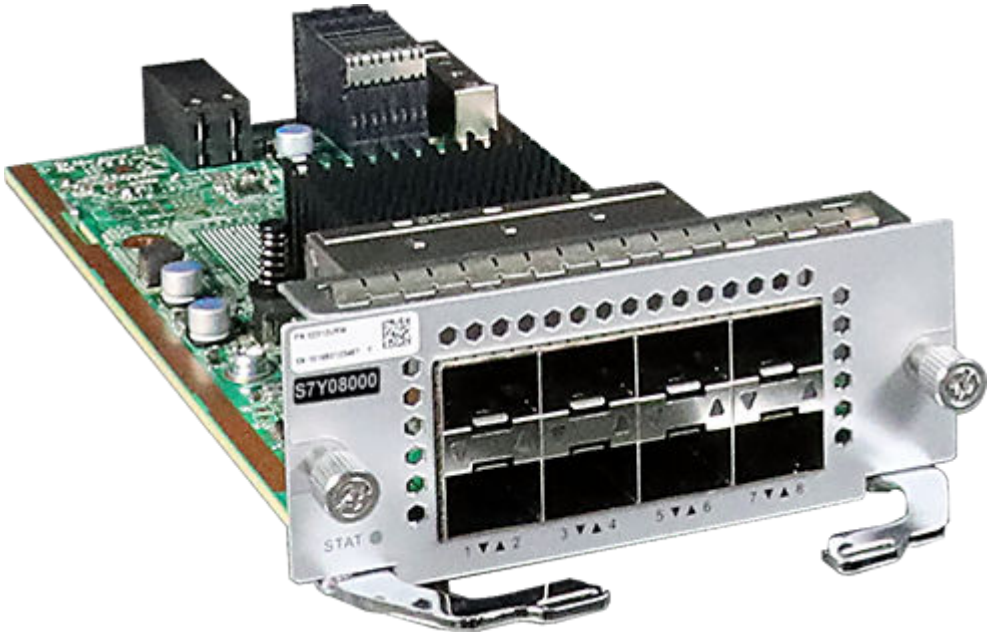
Figure 8-78 S7Y08000



Functions

Table 8-158 Functions

Function	Description
Basic function	Provides eight 25GE SFP28 optical ports for data access and switching by default.
Hot swapping	Supported
Service ports for stacking	The service ports on the card can be used as stack ports.

Indicators and Ports

Figure 8-79 Indicators on the S7Y08000

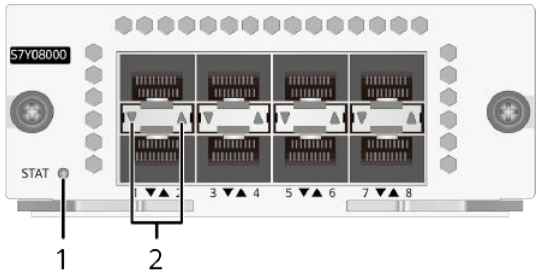


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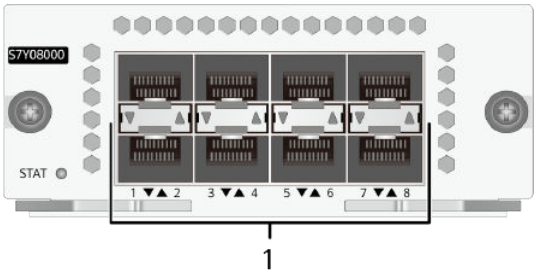
Table 8-159 Indicator description

No.	Indicator	Color	Description
1	STAT	Off	The system software is not running.
		Green	• Fast blinking: The system is starting. • Slow blinking: The system is running properly.
		Red	A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention.
2	ACT/LINK	Green	• Steady on: A link is established on the port. • Blinking: The port is sending or receiving data.
		Off	No link is established on the port.

Figure 8-80 Ports on the S7Y08000



1. Eight 25GE SFP28 optical ports, supporting 25GE/10GE/GE.

25GE SFP28 optical port

The S7Y08000 provides 25GE SFP28 optical ports to transmit and receive service data at 25 Gbit/s, 10 Gbit/s, or 1 Gbit/s. **Table 8-160** lists the attributes of a 25GE SFP28 optical port.

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NOTE

- The 25GE SFP28 optical ports support 25GE optical modules, SFP28 copper cables (1 m, 3 m, and 5 m; SFP28 to SFP28), SFP28 AOC cables (3 m, 5 m, 7 m, and 10 m; SFP28 to SFP28), GE optical modules, GE copper modules, 10GE SFP+ optical modules, SFP+ copper cables (1 m, 3 m, 5 m, and 10 m; SFP+ to SFP+), and AOC cables (3 m and 10 m; SFP+ to SFP+).
- When a 25GE optical module or cable is connected to a 25GE SFP28 optical port, the port can automatically adjust its rate to 25 Gbit/s.
- When a 10GE optical module or cable is connected to a 25GE SFP28 optical port, the port can automatically adjust its rate to 10 Gbit/s.
- Before installing a GE optical module or copper module on a 25GE SFP28 optical port, run the **port mode ge** command to configure the port to work at 1 Gbit/s.

Table 8-160 Attributes of a 25GE SFP28 optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module. For details, see **10.16 25GE SFP28 Optical Modules**, **10.5 GE eSFP Optical Modules**, **10.7 GE-CWDM eSFP Optical Modules**, **10.9 GE-DWDM eSFP Optical Modules**, **10.10 GE SFP Copper Modules**, **10.13 10GE SFP+ Optical Modules**, **10.14 10GE-CWDM SFP+ Optical Modules**, and **10.15 10GE-DWDM SFP+ Optical Modules**.

Technical Specifications

Table 8-161 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 40 mm x 100 mm x 208 mm (1.57 in. x 3.94 in. x 8.19 in.) • Weight: 0.44 kg (0.97 lb) • Maximum power consumption: 33 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-162 provides the S7Y08000 ordering information.

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Table 8-162 Ordering information

Card Description	Card Model	Part Number
8-port 25GE SFP28 optical interface card	S7Y08000	02312URV 02312URV-002

8.26 S7Q02001 (02313UBW: 2-port 40GE QSFP+ interface card)

Overview

Table 8-163 Basic information about the S7Q02001

Item	Details
Description	2-port 40GE QSFP+ interface card
Part Number	02313UBW
Model	S7Q02001

Appearance

Figure 8-81 Appearance of the S7Q02001

Version Mapping

Table 8-164 Mappings between S7Q02001 and product models

Product	Product Model	First Supported Version	Limitations
S5731-H	S5731-H24HB4XZ (02354QXD)	V200R021C10SPC500	-
S5731-H	S5731-H24HB4XZ (02354QXD-001)	V200R021C10SPC600	-
S5731-H	S5731-H24P4XC (02352QPV)	V200R021C01	-

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Product	Product Model	First Supported Version	Limitations
S5731-H	S5731-H24P4XC (02352QPV-001)	V200R021C01	-
S5731-H	S5731-H24P4XC (02352QPV-003)	V200R021C10SPC600	-
S5731-H	S5731-H24T4XC (02352QPP)	V200R021C01	-
S5731-H	S5731-H24T4XC (02352QPP-001)	V200R021C01	-
S5731-H	S5731-H24T4XC (02352QPP-005)	V200R021C10SPC600	-
S5731-H	S5731-H48HB4XZ (02354QXB)	V200R021C10SPC500	-
S5731-H	S5731-H48HB4XZ (02354QXB-001)	V200R021C10SPC600	-
S5731-H	S5731-H48P4XC (02352SVD)	V200R021C01	-
S5731-H	S5731-H48P4XC (02352SVD-001)	V200R021C01	-
S5731-H	S5731-H48P4XC (02352SVD-003)	V200R021C10SPC600	-
S5731-H	S5731-H48T4XC (02352QPT)	V200R021C01	-
S5731-H	S5731-H48T4XC (02352QPT-003)	V200R021C01	-
S5731-H	S5731-H48T4XC (02352QPT-007)	V200R021C10SPC600	-
S5731S-H	S5731S-H24HB4XZ-A (02354QXE)	V200R021C10SPC500	-
S5731S-H	S5731S-H24HB4XZ-A (02354QXE-001)	V200R021C10SPC600	-
S5731S-H	S5731S-H24T4XC-A (02352YRG)	V200R021C01	-
S5731S-H	S5731S-H24T4XC-A (02352YRG-001)	V200R021C01	-

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Product	Product Model	First Supported Version	Limitations
S5731S-H	S5731S-H24T4XC-A (02352YRG-003)	V200R021C10SPC600	-
S5731S-H	S5731S-H48HB4XZ-A (02354QXC)	V200R021C10SPC500	-
S5731S-H	S5731S-H48HB4XZ-A (02354QXC-001)	V200R021C10SPC600	-
S5731S-H	S5731S-H48T4XC-A (02352YRF)	V200R021C01	-
S5731S-H	S5731S-H48T4XC-A (02352YRF-003)	V200R021C01	-
S5731S-H	S5731S-H48T4XC-A (02352YRF-005)	V200R021C10SPC600	-
S5732-H	S5732-H24UM2CC (02353HUC)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353HUC-003)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-001)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-004)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-010)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-011)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-014)	V200R022C00	-

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Product	Product Model	First Supported Version	Limitations
S5732-H	S5732-H24UM2CC (02353SJY-020)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-021)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-024)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353HUB)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353HUB-002)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-001)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-003)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-004)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-010)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-011)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-013)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-014)	V200R022C00	-

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Product	Product Model	First Supported Version	Limitations
S5732-H	S5732-H48UM2CC (02353SJT-020)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-021)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-023)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-024)	V200R022C00	-
S5732-H	S5732-H48XUM2CC (02353MLH)	V200R022C00	-
S5732-H	S5732-H48XUM2CC (02353MLH-001)	V200R022C00	-
S5735S-H	S5735S-H24S4XC-A (98011041)	V200R021C01	-
S5736-S	S5736-S24S4XC (98011038)	V200R021C01	-
S5736-S	S5736-S24UM4XC (98011020)	V200R021C01	-
S5736-S	S5736-S24UM4XC (98011020-001)	V200R021C01	-
S5736-S	S5736-S24UM4XC (98011020-004)	V200R021C01	-
S5736-S	S5736-S48S4XC (98011042)	V200R021C01	-

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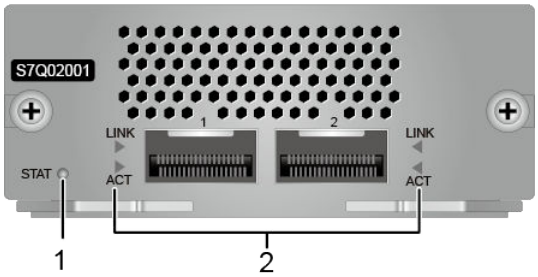
Indicators

Figure 8-82 Indicators on the S7Q02001



1. STAT: running status indicator	2. LINK/ACT indicators of ports

Table 8-165 Indicators on the S7Q02001

Silkscreen	Name	Color	Status	Description
STAT	Running status indicator	-	Off	The system software is not running.
		Green	Fast blinking	The system is starting.
		Green	Slow blinking	The system is running normally.
		Red	Steady on	A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention.
LINK	LINK indicators of ports	-	Off	No link is established on the port.
		Green	Steady on	A link is established on the port.

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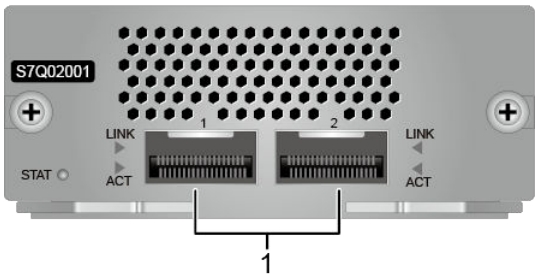
Silkscreen	Name	Color	Status	Description
ACT	ACT indicators of ports	-	Off	The port is not transmitting or receiving data.
		Yellow	Blinking	The port is transmitting or receiving data.

Ports

Figure 8-83 Ports on the S7Q02001



1. Two 40GE QSFP+ optical ports

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Table 8-166 Ports on the S7Q02001

Port	Connector Type	Description	Available Components
40GE QSFP+ optical port	QSFP+	40GE optical ports to transmit and receive service traffic at 40 Gbit/s	• **40GE QSFP+ optical modules** • **1 m, 3 m, and 5 m QSFP+ high-speed copper cables (QSFP+ to QSFP+ or QSFP+ to 4*SFP+)** • **10 m QSFP+ AOC cables (QSFP+ to QSFP+ or QSFP+ to 4*SFP+)**

Functions and Features

Table 8-167 Functions and features of the S7Q02001

Function	Description
Basic functions	Provides two 40GE QSFP+ optical ports for data access and line-rate switching. Each 40GE port can be split into four 10GE ports.
Hot swapping	Supported
Service port stacking	Ports on the card can be used as stack ports. **NOTE** A 40GE port cannot be used as a stack port after it is split into four 10GE ports.

Technical Specifications

Table 8-168 Technical specifications of the S7Q02001

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	40 mm x 100 mm x 208 mm (1.6 in. x 3.9 in. x 8.2 in.)

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Item	Specification
Dimensions with packaging (H x W x D) [mm(in.)]	80 mm x 160 mm x 305 mm (3.15 in. x 6.30 in. x 12.01 in.)
Weight without packaging [kg(lb)]	0.40 kg (0.88 lb)
Weight with packaging [kg(lb)]	0.6 kg (1.32 lb)
Typical power consumption [W]	24 W
Typical heat dissipation [BTU/hour]	81.89 BTU/hour
Maximum power consumption [W]	27 W
Maximum heat dissipation [BTU/hour]	92.13 BTU/hour

8.27 S7Q02001 (02313UBW-002: 2-port 40GE QSFP+ interface card)

Overview

Table 8-169 Basic information about the S7Q02001

Item	Details
Description	2-port 40GE QSFP+ interface card
Part Number	02313UBW-002
Model	S7Q02001

Appearance

Figure 8-84 Appearance of the S7Q02001

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Version Mapping

Table 8-170 Mappings between S7Q02001 and product models

Product	Product Model	First Supported Version	Limitations
S5731-H	S5731-H24HB4XZ (02354QXD)	V200R021C10SPC600	-
S5731-H	S5731-H24HB4XZ (02354QXD-001)	V200R021C10SPC600	-
S5731-H	S5731-H24P4XC (02352QPV)	V200R021C10SPC600	If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card.
S5731-H	S5731-H24P4XC (02352QPV-001)	V200R021C10SPC600	If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card.
S5731-H	S5731-H24P4XC (02352QPV-003)	V200R021C10SPC600	If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card.

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Product	Product Model	First Supported Version	Limitations
S5731-H	S5731-H24T4XC (02352QPP)	V200R021C10SPC600	If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card.
S5731-H	S5731-H24T4XC (02352QPP-001)	V200R021C10SPC600	If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card.
S5731-H	S5731-H24T4XC (02352QPP-005)	V200R021C10SPC600	If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card.
S5731-H	S5731-H48HB4XZ (02354QXB)	V200R021C10SPC600	-
S5731-H	S5731-H48HB4XZ (02354QXB-001)	V200R021C10SPC600	-

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Product	Product Model	First Supported Version	Limitations
S5731-H	S5731-H48P4XC (02352SVD)	V200R021C10SPC600	If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card.
S5731-H	S5731-H48P4XC (02352SVD-001)	V200R021C10SPC600	If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card.
S5731-H	S5731-H48P4XC (02352SVD-003)	V200R021C10SPC600	If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card.
S5731-H	S5731-H48T4XC (02352QPT)	V200R021C10SPC600	If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card.

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Product	Product Model	First Supported Version	Limitations
S5731-H	S5731-H48T4XC (02352QPT-003)	V200R021C10SPC600	If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card.
S5731-H	S5731-H48T4XC (02352QPT-007)	V200R021C10SPC600	If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card.
S5731S-H	S5731S-H24HB4XZ-A (02354QXE)	V200R021C10SPC600	-
S5731S-H	S5731S-H24HB4XZ-A (02354QXE-001)	V200R021C10SPC600	-
S5731S-H	S5731S-H24T4XC-A (02352YRG)	V200R021C10SPC600	If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card.

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Product	Product Model	First Supported Version	Limitations
S5731S-H	S5731S-H24T4XC-A (02352YRG-001)	V200R021C10SPC600	If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card.
S5731S-H	S5731S-H24T4XC-A (02352YRG-003)	V200R021C10SPC600	If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card.
S5731S-H	S5731S-H48HB4XZ-A (02354QXC)	V200R021C10SPC600	-
S5731S-H	S5731S-H48HB4XZ-A (02354QXC-001)	V200R021C10SPC600	-
S5731S-H	S5731S-H48T4XC-A (02352YRF)	V200R021C10SPC600	If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card.

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Product	Product Model	First Supported Version	Limitations
S5731S-H	S5731S-H48T4XC-A (02352YRF-003)	V200R021C10SPC600	If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card.
S5731S-H	S5731S-H48T4XC-A (02352YRF-005)	V200R021C10SPC600	If the device is used in V200R021C10SPC500, install V200R021HP0121 or a later patch. After installing the patch, remove and insert the card again to register the card.
S5732-H	S5732-H24UM2CC (02353HUC)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353HUC-003)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-001)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-004)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-010)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-011)	V200R022C00	-

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Product	Product Model	First Supported Version	Limitations
S5732-H	S5732-H24UM2CC (02353SJY-014)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-020)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-021)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-024)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353HUB)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353HUB-002)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-001)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-003)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-004)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-010)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-011)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-013)	V200R022C00	-

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Product	Product Model	First Supported Version	Limitations
S5732-H	S5732-H48UM2CC (02353SJT-014)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-020)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-021)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-023)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-024)	V200R022C00	-
S5732-H	S5732-H48XUM2CC (02353MLH)	V200R022C00	-
S5732-H	S5732-H48XUM2CC (02353MLH-001)	V200R022C00	-
S5735S-H	S5735S-H24S4XC-A (98011041)	V200R021C10SPC600	-
S5736-S	S5736-S24S4XC (98011038)	V200R021C10SPC600	-
S5736-S	S5736-S24UM4XC (98011020)	V200R021C10SPC600	-
S5736-S	S5736-S24UM4XC (98011020-001)	V200R021C10SPC600	-
S5736-S	S5736-S24UM4XC (98011020-004)	V200R021C10SPC600	-
S5736-S	S5736-S48S4XC (98011042)	V200R021C10SPC600	-

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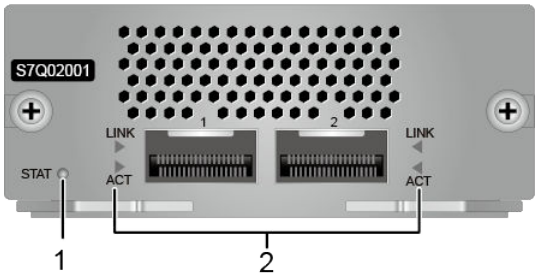
Indicators

Figure 8-85 Indicators on the S7Q02001



1. STAT: running status indicator	2. LINK/ACT indicators of ports

Table 8-171 Indicators on the S7Q02001

Silkscreen	Name	Color	Status	Description
STAT	Running status indicator	-	Off	The system software is not running.
		Green	Fast blinking	The system is starting.
		Green	Slow blinking	The system is running normally.
		Red	Steady on	A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention.
LINK	LINK indicators of ports	-	Off	No link is established on the port.
		Green	Steady on	A link is established on the port.

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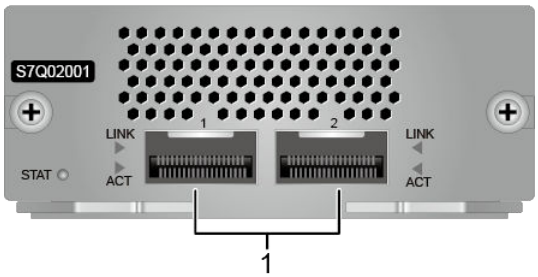
Silkscreen	Name	Color	Status	Description
ACT	ACT indicators of ports	-	Off	The port is not transmitting or receiving data.
		Yellow	Blinking	The port is transmitting or receiving data.

Ports

Figure 8-86 Ports on the S7Q02001



1. Two 40GE QSFP+ optical ports

Table 8-172 Ports on the S7Q02001

Port	Connector Type	Description	Available Components
40GE QSFP+ optical port	QSFP+	40GE optical ports to transmit and receive service traffic at 40 Gbit/s	• **40GE QSFP+ optical modules** • **1 m, 3 m, and 5 m QSFP+ high-speed copper cables (QSFP+ to QSFP+ or QSFP+ to 4*SFP+)** • **10 m QSFP+ AOC cables (QSFP+ to QSFP+ or QSFP+ to 4*SFP+)**

Functions and Features

Table 8-173 Functions and features of the S7Q02001

Function	Description
Basic functions	Provides two 40GE QSFP+ optical ports for data access and line-rate switching. Each 40GE port can be split into four 10GE ports.
Hot swapping	Supported
Service port stacking	Ports on the card can be used as stack ports. **NOTE** A 40GE port cannot be used as a stack port after it is split into four 10GE ports.

Technical Specifications

Table 8-174 Technical specifications of the S7Q02001

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	40 mm x 100 mm x 208 mm (1.6 in. x 3.9 in. x 8.2 in.)

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Item	Specification
Dimensions with packaging (H x W x D) [mm(in.)]	80 mm x 160 mm x 305 mm (3.15 in. x 6.30 in. x 12.01 in.)
Weight without packaging [kg(lb)]	0.40 kg (0.88 lb)
Weight with packaging [kg(lb)]	0.6 kg (1.32 lb)
Typical power consumption [W]	24 W
Typical heat dissipation [BTU/hour]	81.89 BTU/hour
Maximum power consumption [W]	27 W
Maximum heat dissipation [BTU/hour]	92.13 BTU/hour

8.28 S7C02000 (2-port 100GE QSFP28 interface card)

Overview

Table 8-175 Basic information about the S7C02000

Item	Details
Description	2-port 100GE QSFP28 interface card
Part Number	02313UBV
Model	S7C02000

Appearance

Figure 8-87 Appearance of the S7C02000

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Version Mapping

Table 8-176 Mappings between S7C02000 and product models

Product	Product Model	First Supported Version	Limitations
S5732-H	S5732-H24UM2CC (02353HUC)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353HUC-003)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-001)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-004)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-010)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-011)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-014)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-020)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-021)	V200R022C00	-
S5732-H	S5732-H24UM2CC (02353SJY-024)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353HUB)	V200R022C00	-

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Product	Product Model	First Supported Version	Limitations
S5732-H	S5732-H48UM2CC (02353HUB-002)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-001)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-003)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-004)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-010)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-011)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-013)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-014)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-020)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-021)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-023)	V200R022C00	-
S5732-H	S5732-H48UM2CC (02353SJT-024)	V200R022C00	-

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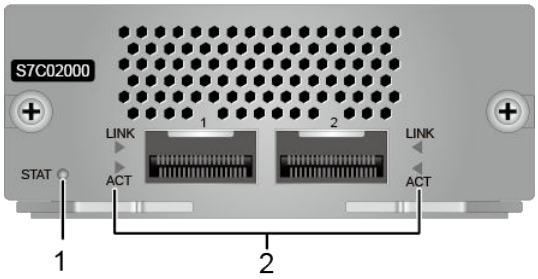
Product	Product Model	First Supported Version	Limitations
S5732-H	S5732-H48XUM2CC (02353MLH)	V200R022C00	-
S5732-H	S5732-H48XUM2CC (02353MLH-001)	V200R022C00	-

Indicators

Figure 8-88 Indicators on the S7C02000



1. STAT: running status indicator	2. LINK/ACT indicators of ports

Table 8-177 Indicators on the S7C02000

Silkscreen	Name	Color	Status	Description
STAT	Running status indicator	-	Off	The system software is not running.
		Green	Fast blinking	The system is starting.
		Green	Slow blinking	The system is running normally.

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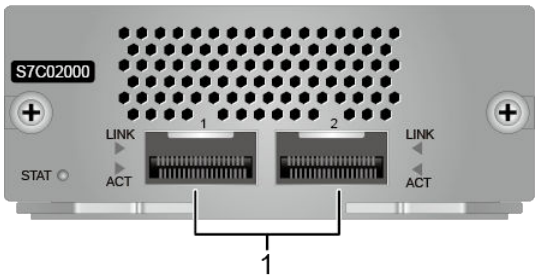
Silkscreen	Name	Color	Status	Description
		Red	Steady on	A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention.
LINK	LINK indicators of ports	-	Off	No link is established on the port.
		Green	Steady on	A link is established on the port.
ACT	ACT indicators of ports	-	Off	The port is not transmitting or receiving data.
		Yellow	Blinking	The port is transmitting or receiving data.

Ports

Figure 8-89 Ports on the S7C02000



1. Two 40GE/100GE QSFP28 optical ports

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Table 8-178 Ports on the S7C02000

Port	Connector Type	Description	Available Components
100GE QSFP28 optical port	QSFP28	100GE optical ports to transmit and receive service traffic at 40 Gbit/s or 100 Gbit/s.	• **100GE QSFP28 optical modules** • **1 m, 3 m, and 5 m QSFP28 to QSFP28 high-speed copper cable** • **10 m QSFP28 to QSFP28 AOC cable** • **2 m QSFP28 dedicated stack cable** • **40GE QSFP+ optical modules** • **1 m, 3 m, and 5 m QSFP+ high-speed copper cables (QSFP+ to QSFP+ or QSFP+ to 4*SFP+)** • **10 m QSFP+ AOC cables (QSFP+ to QSFP+ or QSFP+ to 4*SFP+)**

Functions and Features

Table 8-179 Functions and features of the S7C02000

Function	Description
Basic functions	Provides two 40GE/100GE QSFP28 optical ports for data access and line-rate switching. Each 40GE/100GE port can be split into four 10GE ports or four 25GE ports.

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Function	Description
Hot swapping	Supported
Service port stacking	Ports on the card can be used as stack ports. **NOTE** A 40GE/100GE port cannot be used as a stack port after it is split into four 10GE ports or four 25GE ports.

Technical Specifications

Table 8-180 Technical specifications of the S7C02000

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	40 mm x 100 mm x 208 mm (1.6 in. x 3.9 in. x 8.2 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	80 mm x 160 mm x 305 mm (3.15 in. x 6.30 in. x 12.01 in.)
Weight without packaging [kg(lb)]	0.40 kg (0.88 lb)
Weight with packaging [kg(lb)]	0.6 kg (1.32 lb)
Typical power consumption [W]	25 W
Typical heat dissipation [BTU/hour]	85.3 BTU/hour
Maximum power consumption [W]	28 W
Maximum heat dissipation [BTU/hour]	95.54 BTU/hour

8.29 ES5D21VST000 (Dedicated Stack Card with 2*QSFP + Interface)

Version Mapping

Table 8-181 lists the mapping between the ES5D21VST000 card and software versions.

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Table 8-181 Version mapping

Card Model	Software Version
ES5D21VST000	S5720-C-EI and S5720-PC-EI: V200R007C00 to V200R019C10 versions **NOTE** This module is not supported in V200R007C10. S5730-SI and S5730S-EI: V200R012C00 to V200R019C10 versions

Card Overview

The ES5D21VST000 is a stack card that provides two QSFP+ optical ports for stack connection. It can be installed in a rear card slot of the switch models listed in **Table 8-182**.

Table 8-182 Applicable switch models

Card	Switch Model
ES5D21VST000	S5720-C-EI, S5720-PC-EI, S5730-SI, and S5730S-EI series

Figure 8-90 ES5D21VST000

Functions

Table 8-183 describes functions of the ES5D21VST000.

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Table 8-183 Functions

Function	Description
Basic function	Provides two QSFP+ optical ports for setting up a stack system among multiple switches. The QSFP+ optical port cannot be split into four 10GE ports.
Hot swapping	Supported

Indicators and Ports

Figure 8-91 Indicators on the ES5D21VST000

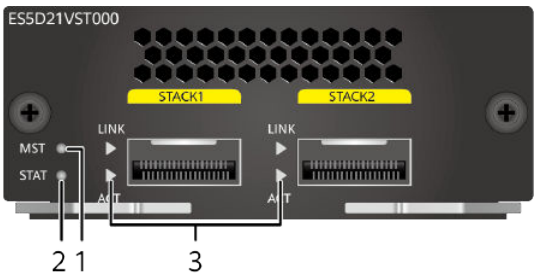

Table 8-184 Description of indicators on the ES5D21VST000

Number	Indicator	Color	Description
1	MST	Off	Off: The switch is the standby or slave switch in a stack or a standalone switch with the stacking function disabled.
		Green	Blinking: The switch is the master switch in a stack or a standalone switch with the stacking function enabled.
2	STAT	Off	The system software is not running.
		Green	• Fast blinking: The system is starting. • Slow blinking: The system is running properly.
		Red	Steady on: A fault that affects services has occurred. The fault cannot be rectified automatically and requires manual intervention.

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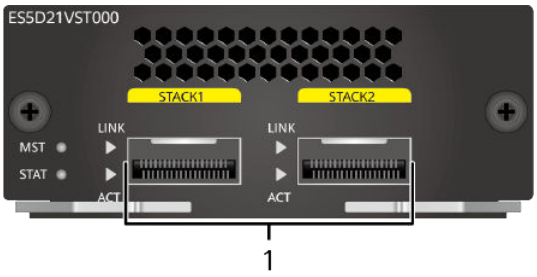
Number	Indicator	Color	Description
3	LINK	Off	No link is established on the port.
		Green	Steady on: A link is established on the port.
	ACT	Off	The port is not transmitting or receiving data.
		Yellow	Blinking: The port is transmitting or receiving data.

Figure 8-92 Ports on the ES5D21VST000



1. Two QSFP+ optical ports

QSFP+ optical ports

QSFP+ optical ports on the ES5D21VST000 are used for setting up a stack system among multiple switches. **Table 8-185** lists the attributes of a QSFP+ optical port.

NOTE

When the card is installed on the S5720-EI, the two optical ports on the card can work with QSFP+ optical modules (only QSFP-40G-SR4 and QSFP-40G-iSR4 supported) and QSFP+ cables (1 m, 3 m, and 5 m; QSFP+ to QSFP+). When the card is installed on the S5730-SI or S5730S-EI, the optical ports on the card can work with QSFP+ optical modules (excluding the QSFP-40G-SR-BD), QSFP+ AOC cables (10 m; QSFP+ to QSFP+), and QSFP+ cables (1 m, 3 m, and 5 m; QSFP+ to QSFP+).

Table 8-185 Attributes of a QSFP+ optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used (see **10.17 40GE QSFP+ Optical Modules**)

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Attribute	Description
Standards compliance	IEEE 802.3ba

Technical Specifications

Table 8-186 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 40 mm x 100 mm x 208 mm (1.6 in. x 3.9 in. x 8.2 in.) • Weight: 0.92 kg (2.03 lb) • Maximum power consumption: 9 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-187 Ordering information

Card Description	Card Name	Part Number
Dedicated stack card with 2*QSFP+ interface (including one PCS of 1 m QSFP+ cable)	ES5D21VST000	02310YXY

8.30 ES5D00ETPC00 (Stack Rear Card)

Version Mapping

Table 8-188 lists the mapping between the ES5D00ETPC00 card and software versions.

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Table 8-188 Version mapping

Card Model	Software Version
ES5D00ETPC00 **NOTE** After the **display device** command is executed, the PCB model of the card is displayed as CX22ETPC.	V100R005C01 to V200R005C03 **NOTE** This module is not supported in V200R003C02 or V200R003C10.

Card Overview

Intelligent Stack (iStack) technology enables multiple stacking-capable devices to function as a logical device.

Before a stack is set up, each switch is an independent entity that has its own IP address and MAC address. You need to manage the switches separately. After a stack is set up, switches in the stack form a logical entity that can be managed and maintained using a single IP address. Stack technology improves forwarding performance and network reliability, and simplifies network management.

Switches can be connected as a stack using service ports or stack cards (ES5D00ETPC00).

The ES5D00ETPC00 stack card can be installed in a rear card slot of the switch models listed in **Table 8-189**.

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Table 8-189 Applicable switch models

Card	Switch Model
ES5D00ETPC00	• S5700-24TP-SI-AC • S5700-24TP-SI-DC • S5700-48TP-SI-AC • S5700-48TP-SI-DC • S5700-24TP-PWR-SI • S5700-48TP-PWR-SI • S5700-28C-SI • S5700-52C-SI • S5700-28C-PWR-SI • S5700-52C-PWR-SI • S5700-28C-EI • S5700-52C-EI • S5700-28C-EI-24S • S5700-28C-PWR-EI • S5700-52C-PWR-EI • S5710-28C-LI • S5710-52C-LI • S5710-28C-PWR-LI • S5710-52C-PWR-LI

Figure 8-93 shows the appearance of the ES5D00ETPC00.

Figure 8-93 ES5D00ETPC00

Functions

Table 8-190 describes functions of the ES5D00ETPC00.

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Table 8-190 Functions

Function	Description
Basic function	Provides two 12 Gbit/s electrical ports for stacking. The 12 Gbit/s electrical ports on multiple switches are connected using PCIe cables to set up a stack.
Topology	Switches in a stack can be connected in a chain or ring topology. A link failure in the chain topology causes the stack to split. In contrast, the ring topology changes into a chain topology upon a link failure so that services in the stack are not affected. Therefore, the ring topology is more reliable than the chain topology. **Figure 8-94** and **Figure 8-95** show the chain and ring topologies. **NOTE** When connecting stack cables, connect stack1 port of one switch to stack2 port of another switch.

Figure 8-94 Chain topology of a stack

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Figure 8-95 Ring topology of a stack

Usage Constraints

NOTICE

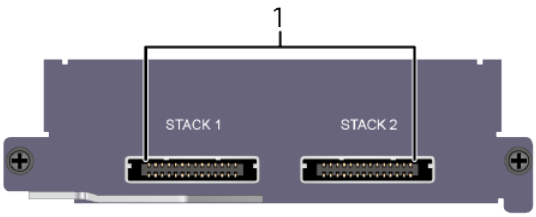
The following requirements must be met to set up a stack:

- All the member switches belong to the same series. The EI series and SI series cannot form a stack.
- All switches have stack cards installed and are connected using PCIe cables.
- The ES5D00ETPC00 is not hot swappable, but PCIe cables are hot swappable.

Port Description

Figure 8-96 shows ports on the ES5D00ETPC00.

Figure 8-96 Ports on the ES5D00ETPC00



1. Two stack electrical ports

Stack electrical port

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The ES5D00ETPC00 provides two 12 Gbit/s electrical ports for stacking. The two 12 Gbit/s electrical ports must be used with **9.2 PCIe Cables**. **Table 8-191** describes attributes of the 12 Gbit/s electrical port.

Table 8-191 Attributes of a stack electrical port

Attribute	Description
Connector type	PCIe
Standards compliance	IEEE 802.3ae
Frame format	Ethernet_II, Ethernet_SAP, Ethernet_SNAP
Network protocol	IP

Technical Specifications

Table 8-192 lists technical specifications of the ES5D00ETPC00.

Table 8-192 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 43 mm x 143 mm x 126 mm (1.69 in. x 5.63 in. x 4.96 in.) • Weight: 0.2 kg (0.44 lb) • Maximum power consumption: 0.5 W

Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-193 provides the card ordering information.

Table 8-193 Ordering information

Card Description	Card Name	Part Number
Ethernet Stack Interface Card (Including Stack Card, 100 cm Stack Cable)	ES5D001VST00	02319959
Ethernet Stack Interface Card (Including Stack Card, 300 cm Stack Cable)	ES5D2VS02000	02310QPL

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8.31 ES5D00ETPB00 (Extended Rear Card)

Version Mapping

Table 8-194 lists the mapping between the ES5D00ETPB00 card and software versions.

Table 8-194 Version mapping

Card Model	Software Version
ES5D00ETPB00 **NOTE** After the **display device** command is executed, the PCB model of the card is displayed as CX22ETPB.	V100R005C01 to V200R005C03 **NOTE** This module is not supported in V200R003C02 or V200R003C10.

Card Overview

The ES5D00ETPB00 can be installed in a rear card slot of the switch models listed in Table 8-195.

Table 8-195 Applicable switch models

Card	Switch Model
ES5D00ETPB00	• S5700-28C-SI • S5700-52C-SI • S5700-28C-PWR-SI • S5700-52C-PWR-SI • S5700-28C-EI • S5700-52C-EI • S5700-28C-EI-24S • S5700-28C-PWR-EI • S5700-52C-PWR-EI • S5710-28C-LI • S5710-52C-LI • S5710-28C-PWR-LI • S5710-52C-PWR-LI

Figure 8-97 shows the appearance of the ES5D00ETPB00.

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Figure 8-97 ES5D00ETPB00

Functions

Table 8-196 describes functions of the ES5D00ETPB00.

Table 8-196 Functions

Function	Description
Basic function	The ES5D00ETPB00 extended rear card must be used together with the ES5D000X4S01/ES5D000G4S01/ ES5D00G4SA01 front card to provide four GE SFP ports or four 10GE SFP+ ports.

Usage Constraints

NOTICE

An ES5D000X4S01/ES5D000G4S01/ES5D00G4SA01 front card must be used with an ES5D00ETPB00 rear card.

The ES5D00ETPB00 is not hot swappable.

Technical Specifications

Table 8-197 lists technical specifications of the ES5D00ETPB00.

Table 8-197 Technical specifications

Item	Description
Physical specifications	• Dimensions (H x W x D): 43 mm x 143 mm x 126 mm (1.69 in. x 5.63 in. x 4.96 in.) • Weight: 0.2 kg (0.44 lb) • Maximum power consumption: 0.1 W

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Ordering Information

Ordering information is subject to updates with product version upgrades. The ordering information provided in this manual is for reference only. To obtain the latest ordering information, contact Huawei switch distributors or Huawei local office.

Table 8-198 provides the ES5D00ETPB00 ordering information.

Table 8-198 Ordering information

Card Description	Card Name	Part Number
Extended channel card	ES5D00ETPB00	03020MLA

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