S5730-SI Series Standard Gigabit Ethernet Switches

The S5730-SI series switches are next-generation standard gigabit Layer 3 Ethernet switches. They can be used as access or aggregation switches on a campus network or as access switches in a data center.

Introduction

The S5730-SI series switches are next-generation standard gigabit Layer 3 Ethernet switches that provide flexible all-gigabit access and cost-effective fixed GE/10GE ports as well as 40GE uplink ports. The S5730-SI builds on next-generation high-performing hardware and the Huawei Versatile Routing Platform (VRP). The S5730-SI supports simplified operations and maintenance (O&M), intelligent stack (iStack), and flexible Ethernet networking. It also provides enhanced Layer 3 features and mature IPv6 features. The S5730-SI can be used in various scenarios. For example, it can be used as an access or aggregation switch on a campus network or as an access switch in a data center.

Product Overview

Models and Appearances

The following models are available in the S5730-SI series.

Models and appearances of the S5730-SI series

Appearance	Description
 S5730-48C-SI-AC	• 24 10/100/1000 Ethernet ports, 8 10GE SFP+ ports • One interface slot • One 150 W AC power supply equipped by default • Forwarding performance: 240 Mpps • Switching capacity: 680 Gbit/s
 S5730-48C-PWR-SI-AC	• 24 10/100/1000 Ethernet ports, 8 10GE SFP+ ports • PoE+ • One interface slot • One 500 W AC power supply equipped by default • Forwarding performance: 240 Mpps • Switching capacity: 680 Gbit/s
 S5730-68C-SI-AC	• 48 10/100/1000 Ethernet ports, 4 10GE SFP+ ports • One interface slot • One 150 W AC power supply equipped by default • Forwarding performance: 240 Mpps

Appearance	Description
	• Switching capacity: 680 Gbit/s
 S5730-68C-PWR-SI	• 48 10/100/1000 Ethernet ports, 4 10GE SFP+ ports • PoE+ • One interface slot • Forwarding performance: 240 Mpps • Switching capacity: 680 Gbit/s

Card Types

The S5730-SI provides one slot for ES5D21Q04Q01 (4-port 40GE QSFP+ rear interface card) for upstream connections or ES5D21VST000 (dedicated stack card with two QSFP+ ports) for stack connection.

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

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

Technical specifications of the ES5D21Q04Q01

Model	Technical Specifications	Applied Switch Model
 ES5D21Q04Q01	• Physical specifications: – Dimensions (W x D x H): 100 mm x 208 mm x 40 mm (3.9 in. x 8.2 in. x 1.6 in.) – Weight: 0.5 kg (1.10 lb) – Maximum power consumption: 18.83 W • Environment parameters: – 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 has a 40 km QSFP+ optical module installed, the operating temperature must be in the range of 0°C to 40°C.	• S5730-48C-SI-AC • S5730-48C-PWR-SI-AC • S5730-68C-SI-AC • S5730-68C-PWR-SI

NOTE

Cards shipped since June 2014 have an applicability label attached at the back. Notice the card model and applicable device series on the label to avoid installing a card into an inapplicable device.

Functions and features of the ES5D21Q04Q01

Function and Feature	Description
Basic function	Provides four 40GE QSFP+ optical ports for data access and line-rate switching. Each 40GE port can be split into four 10GE ports.
Hot swap	Supported
Service ports for 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.

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

The ES5D21VST000 is a stack card that provides two QSFP+ optical ports for stack connection.

Technical specifications of the ES5D21VST000

Model	Technical Specifications	Applied Switch Model
 ES5D21VST000	• Physical specifications: – Dimensions (W x D x H): 100 mm x 208 mm x 40 mm (3.9 in. x 8.2 in. x 1.6 in.) – Weight: 0.92 kg (2.03 lb) – Maximum power consumption: 9 W • Environment parameters: – 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)	• S5730-48C-SI-AC • S5730-48C-PWR-SI-AC • S5730-68C-SI-AC • S5730-68C-PWR-SI

NOTE

Cards shipped since June 2014 have an applicability label attached at the back. Notice the card model and applicable device series on the label to avoid installing a card into an inapplicable device.

Functions and features of the ES5D21Q04Q01

Function and Feature	Description
Basic function	Provides two QSFP+ optical ports for setting up a stack system among multiple switches.
Hot swap	Supported

Fan Module

The following table lists the fan module applicable to the S5730-SI.

Technical specifications of the fan module applicable to the S5730-SI series

Fan Module	Technical Specifications	Applied Switch Model
 FAN-028A-B	• Dimensions (W x D x H): 100 mm x 220 mm x 40 mm • Number of fans: 2 • Weight: 0.34 kg • Maximum power consumption: 12 W • Maximum fan speed: 16000±10% revolutions per minute (RPM) • Maximum wind rate: 28 cubic feet per minute (CFM) • Hot swap: Supported	• S5730-48C-SI-AC • S5730-48C-PWR-SI-AC • S5730-68C-SI-AC • S5730-68C-PWR-SI

Power Supply

The following table lists the power supplies applicable to the S5730-SI.

Technical specifications of the power supplies applicable to the S5730-SI series

Power Module	Technical Specifications	Applied Switch Model

Power Module	Technical Specifications	Applied Switch Model
 ES0W2PSA0150	• Dimensions (W x D x H): 100 mm x 205 mm x 40 mm (3.9 in. x 8.1 in. x 1.6 in.) • Weight: 0.8 kg (1.76 lb) • Rated input voltage range: 100 V AC to 240 V AC, 50/60 Hz • Maximum input voltage range: 90 V AC to 264 V AC, 47 Hz to 63 Hz • Maximum input current: 3 A • Maximum output current: 12.5 A • Rated output voltage: 12 V • Maximum output power: 150 W • Hot swap: Supported	• S5730-48C-SI-AC • S5730-68C-SI-AC
 ES0W2PSD0150	• Dimensions (W x D x H): 100 mm x 205 mm x 40 mm (3.9 in. x 8.1 in. x 1.6 in.) • Weight: 0.8 kg (1.76 lb) • Rated input voltage range: -48 V DC to -60 V DC • Maximum input voltage range: -36 V DC to -72 V DC • Maximum input current: 6 A • Maximum output current: 12.5 A • Rated output voltage: 12 V • Maximum output power: 150 W • Hot swap: Supported	• S5730-48C-SI-AC • S5730-68C-SI-AC


PAC-500WA-BE
	• Dimensions (W x D x H): 100 mm x 205 mm x 40 mm (3.9 in. x 8.1 in. x 1.6 in.)
	• Weight: 1.06 kg (2.34 lb)
	• Rated input voltage range: 100 V AC to 240 V AC, 50/60 Hz
	• Maximum input voltage range: 90 V AC to 264 V AC, 47 Hz to 63 Hz
	• Maximum input current: 7 A to 3.5 A
	• Maximum output current:
	  − +12 V: 10 A
	  − -53.5 V: 7.11 A
	• Maximum output power:
	  − +12 V: 120 W
	  − -53.5 V: 380 W (PoE: 369.6 W)
	• Hot swap: Supported
		• S5730-48C-PWR-SI-AC
		• S5730-68C-PWR-SI

 PDC-650WA-BE	• Dimensions (W x D x H): 100 mm x 205 mm x 40 mm (3.9 in. x 8.1 in. x 1.6 in.) • Weight: 0.83 kg (1.83 lb) • Rated input voltage range: -48 V DC to -60 V DC • Maximum input voltage range: -38.4 V DC to -72 V DC	• S5730-48C-PWR-SI-AC • S5730-68C-PWR-SI

Power Module	Technical Specifications	Applied Switch Model

	• Maximum input current: 20 A
	• Maximum output current:
	  – +12 V: 22.5 A
	  – -53.5 V: 7.11 A
	• Maximum output power:
	  – PoE power: 369.6 W
	  – Total power: 650 W
	• Hot swap: Supported	


W2PSA1150
	• Dimensions (W x D x H): 100.0 mm x 281.0 mm x 41.4 mm (3.9 in. x 11.1 in. x 1.63 in.)
	• Weight: < 1.6 kg (3.53 lb)
	• Rated input voltage range: 100 V AC to 240 V AC, 50/60 Hz
	• Maximum input voltage range: 90 V AC to 290 V AC, 45 Hz to 65 Hz
	• Input current: 10 A
	• Maximum output current:
	  – +12 V: 29.17 A
	  – -53.5 V: 14.95 A
	• Maximum output power:
	  – PoE power: 785.4 W (220 V)/446.6 W (110 V)
	  – Total power: 1150 W (220 V)/800 W (110 V)
	• Hot swap: Supported
		• S5730-68C-PWR-SI


PAC1000D5412
	• Dimensions (W x D x H): 99 mm x 204 mm x 42 mm (3.9 in. x 8.1 in. x 1.7 in.)
	• Weight: 1.1 kg (2.43 lb)
	• Rated input voltage range:
	  – 100 V AC to 240 V AC, 50/60 Hz
	  – 240 V DC
	• Maximum input voltage range:
	  – 90 V AC to 290 V AC, 47 Hz to 63 Hz
	  – 190 V DC to 290 V DC
	• Input current:
	  – 100 V AC to 130 V AC: 12 A
	  – 200 V AC to 240 V AC: 6 A
	  – 240 V DC: 8A
	• Maximum output current:
	  – +12 V: 20.84 A
	  – -53.5 V: 14.58 A
	• Maximum output power:
	  – PoE: 754.6 W
	  – Total: 1000 W
	• Hot swap: Supported
		• S5730-68C-PWR-SI

NOTE

The S5730-SI supports multiple power supply options, including dual-power, PoE, and single-power.

Dual-Power (Non-PoE)

Dual-power models (non-PoE) use pluggable power supplies and provide two power slots. By default, one AC power supply (ES0W2PSA0150) is equipped. When a switch has two power supplies installed, the power supplies work in 1+1 backup mode to power the switch. The switch supports dual AC power supplies, dual DC power supplies, as well as mixed insertion of AC and DC power supplies.

The following table lists the power supply options supported by the S5730-SI.

Power supply options supported by the S5730-SI series

Model	Power Supply 1	Power Supply 2
S5730-48C-SI-AC	ES0W2PSA0150 (150 W-AC) or ES0W2PSD0150 (150 W-DC)	ES0W2PSA0150 (150 W-AC) or ES0W2PSD0150 (150 W-DC)
S5730-68C-SI-AC	ES0W2PSA0150 (150 W-AC) or ES0W2PSD0150 (150 W-DC)	ES0W2PSA0150 (150 W-AC) or ES0W2PSD0150 (150 W-DC)

PoE/PoE+

PWR in the model name indicates a PoE-capable switch, which supports IEEE 802.3af-compliant PoE and 802.3at-compliant PoE+. Each port delivers 15.4 W PoE or 30 W PoE+ power capacity.

Each PoE-capable S5730-SI switch has two power slots for pluggable PoE power supplies. The following table lists the power supply options supported by PoE-capable S5730-SI models.

Power supply options supported by the PoE-capable S5730-SI series

Model	Power Supply 1	Power Supply 2	PoE Power Supply	Number of PoE Ports
S5730-48C-PWR-SI-AC	500 W	-	369.6 W	• PoE (15.4 W): 24 • PoE+ (30 W): 12
	500 W or 650 W	500 W or 650 W	739.2 W	• PoE (15.4 W): 24 • PoE+ (30 W): 24
S5730-68C-PWR-SI	500 W or 650 W	-	369.6 W	• PoE (15.4 W): 24 • PoE+ (30 W): 12
	500 W or 650 W	500 W or 650 W	739.2 W	• PoE (15.4 W): 48 • PoE+ (30 W): 24
	1150 W (220 V)	-	785.4 W	• PoE (15.4 W): 48 • PoE+ (30 W): 26
	1150 W (110 V)	-	446.6 W	• PoE (15.4 W): 29 • PoE+ (30 W): 14
	1150 W (220 V)	1150 W (220 V)	1440 W	• PoE (15.4 W): 48 • PoE+ (30 W): 48
	1150 W (110 V)	1150 W (110 V)	893.2 W	• PoE (15.4 W): 48 • PoE+ (30 W): 29
	1000 W (220 V)	-	754.6 W	• PoE (15.4 W): 48 • PoE+ (30 W): 25

Model	Power Supply 1	Power Supply 2	PoE Power Supply	Number of PoE Ports
	1000 W (220 V)	1000 W (220 V)	1440 W	• PoE (15.4 W): 48 • PoE+ (30 W): 48
	1000 W (110 V)	-	754.6 W	• PoE (15.4 W): 48 • PoE+ (30 W): 25
	1000 W (110 V)	1000 W (110 V)	1440 W	• PoE (15.4 W): 48 • PoE+ (30 W): 48
	1000 W (220 V)	1150 W (220 V)	1440 W	• PoE (15.4 W): 48 • PoE+ (30 W): 48
	1150 W (220 V)	1000 W (220 V)	1440 W	• PoE (15.4 W): 48 • PoE+ (30 W): 48
	1000 W (110 V)	1150 W (110 V)	893.2 W	• PoE (15.4 W): 48 • PoE+ (30 W): 29
	1150 W (110 V)	1000 W (110 V)	893.2 W	• PoE (15.4 W): 48 • PoE+ (30 W): 29

NOTE

When a switch has two power supplies installed, the two power supplies work in redundancy mode to provide power for the switch and in load balancing mode to provide power for powered devices (PDs).

Product Features and Highlights

Powerful Service Processing Capability and Multiple Security Control Mechanisms

- The S5730-SI supports many Layer 2/Layer 3 multicast protocols such as PIM SM, PIM DM, PIM SSM, MLD, and IGMP snooping, to support multi-terminal high-definition video surveillance and video conferencing services.
- The S5730-SI supports multiple Layer 3 features including OSPF, IS-IS, BGP, and VRRP, meeting enterprises' requirements on access and aggregation service transmission and enabling a variety of voice, video, and data applications.
- The S5730-SI supports MAC address authentication, 802. 1X authentication, and Portal authentication, and implements dynamic delivery of policies (VLAN, QoS, and ACL) to users.
- The S5730-SI provides a series of mechanisms to defend against DoS and user-targeted attacks. DoS attacks are targeted at switches and include SYN flood, Land, Smurf, and ICMP flood attacks. User-targeted attacks include bogus DHCP server attacks, IP/MAC address spoofing, DHCP request flood, and change of the DHCP CHADDR value.
- The S5730-SI sets up and maintains a DHCP snooping binding table, and discards the packets that do not match the table entries. You can specify DHCP snooping trusted and untrusted ports to ensure that users connect only to the authorized DHCP server.
- The S5730-SI supports strict ARP learning, which protects a network against ARP spoofing attacks to ensure normal network access.

Easy O&M

- The S5730-SI supports Super Virtual Fabric (SVF), which virtualizes the "Core/Aggregation switches + Access switches + APs" structure into a single logical device. The S5730-SI provides the innovative network management solution in the industry to simplify device management. It allows plug-and-play of access switches and APs. In addition, the S5730-SI supports service configuration templates. The templates are configured on core devices and automatically delivered to access devices, enabling centralized control, simplified service configuration, and flexible configuration modification. The S5730-SI functions as a client in an SVF system.
- The S5730-SI supports zero-touch deployment, replacement of faulty devices without additional configuration, USB-based deployment, batch configuration, and batch remote upgrade. The capabilities facilitate device deployment, upgrade, service

provisioning, and other management and maintenance operations, and also greatly reduce O&M costs. The S5730-SI can be managed using SNMP v1/v2c/v3, CLI, web-based network management system, or SSH v2. 0. Additionally, it supports RMON, multiple log hosts, port traffic statistics collection, and network quality analysis, which facilitate network optimization and reconstruction.

- The S5730-SI supports the Sampled Flow (sFlow) function. It uses a method defined in the sFlow standard to sample traffic passing through it and sends sampled traffic to the collector in real time. The collected traffic statistics are used to generate statistical reports, helping enterprises maintain their networks.

Intelligent O&M

- The S5730-SI provides telemetry technology to collect device data in real time and send the data to Huawei campus network analyzer CampusInsight. The CampusInsight analyzes network data based on the intelligent fault identification algorithm, accurately displays the real-time network status, effectively demarcates and locates faults in a timely manner, and identifies network problems that affect user experience, accurately guaranteeing user experience.
- The S5730-SI supports a variety of intelligent O&M features for audio and video services, including the enhanced Media Delivery Index (eMDI). With this eDMI function, the switch can function as a monitored node to periodically conduct statistics and report audio and video service indicators to the CampusInsight platform. In this way, the CampusInsight platform can quickly demarcate audio and video service quality faults based on the results of multiple monitored nodes.

Intelligent Upgrade

- Switches support the intelligent upgrade feature. Specifically, switches obtain the version upgrade path and download the newest version for upgrade from the Huawei Online Upgrade Platform (HOUP). The entire upgrade process is highly automated and achieves one-click upgrade. In addition, preloading the version is supported, which greatly shortens the upgrade time and service interruption time.
- The intelligent upgrade feature greatly simplifies device upgrade operations and makes it possible for the customer to upgrade the version independently. This greatly reduces the customer's maintenance costs. In addition, the upgrade policies on the HOUP platform standardize the upgrade operations, which greatly reduces the risk of upgrade failures.

Multiple Reliability Mechanisms

- The S5730-SI supports iStack. This technology can virtualize up to nine physical switches into a single logical switch. Member switches in a stack implement redundancy backup to improve device reliability and use inter-device link aggregation to improve link reliability. iStack ensures path failover within 200 milliseconds and implements hitless master/backup switchover. iStack provides high network scalability. You can increase a stack's ports, bandwidth, and processing capacity by simply adding member switches. iStack also simplifies device configuration and management. After a stack is set up, multiple physical switches are virtualized into one logical device. You can log in to any member switch in the stack to manage all the member switches in the stack.
- The S5730-SI is equipped with two removable power supplies that can work in 1+1 redundancy backup mode. Mixed installation of AC and DC power supplies is supported, allowing for flexible configuration of AC and DC power supplies according to service requirements.
- In addition to traditional STP, RSTP, and MSTP, the S5730-SI supports Huawei-developed Smart Ethernet Protection (SEP) technology and the latest Ethernet Ring Protection Switching (ERPS) standard. SEP is a ring protection protocol specific to the Ethernet link layer, and applies to various ring network topologies, such as open ring topology, closed ring topology, and cascading ring topology. This protocol is reliable and easy to maintain, and implements fast protection switching within 50 ms. ERPS is defined in ITU-T G. 8032. It implements millisecond-level protection switching based on traditional Ethernet MAC and bridging functions.
- The S5730-SI supports Smart Link. One S5730-SI switch can connect to multiple aggregation switches through multiple links, implementing backup of uplinks and significantly improving reliability of access devices.
- The S5730-SI supports Ethernet OAM (IEEE 802. 3ah/802. 1ag) to detect link faults quickly.

Enhanced QoS Control Mechanism

- The S5730-SI provides excellent QoS capabilities and supports queue scheduling and congestion control algorithms. Additionally, it adopts innovative priority queuing and multi-level scheduling mechanisms to implement fine-grained scheduling of data flows, meeting service quality requirements of different user terminals and services.
- The S5730-SI implements complex traffic classification based on packet information, such as the 5-tuple, IP preference, ToS, DSCP, IP protocol type, ICMP type, TCP source port, VLAN ID, Ethernet protocol type, and CoS. ACLs can be applied to the inbound or outbound direction of a port.

- The S5730-SI supports flow-based two-rate three-color CAR. Each port supports eight priority queues, multiple queue scheduling algorithms, such as WRR, DRR, SP, WRR+SP, and DRR+SP, and WRED that is a congestion avoidance algorithm. All of these features ensure high-quality voice, video, and data services.

Mature IPv6 Technologies

- The S5730-SI uses the mature, stable VRP platform and supports IPv4/IPv6 dual stacks, IPv6 RIPng, and IPv6 over IPv4 tunnels (including manual, 6-to-4, and ISATAP tunnels). With these IPv6 features, the S5730-SI can be deployed on a pure IPv4 network, a pure IPv6 network, or a shared IPv4/IPv6 network, helping achieve IPv4-to-IPv6 transition.

High-Performance VRP Software System

- Huawei S series switches build on a unified Versatile Routing Platform (VRP) software system, meeting the growing network scale and the evolving Internet technologies and guaranteeing network services and network quality.
- VRP is a network operating system developed by Huawei with independent intellectual property rights. It can run on multiple hardware platforms and provide unified network, user, and management views. VRP provides flexible application solutions for users. In addition, VRP is a future-proof platform that maximally protects customer investments.
- The VRP platform is focused on IP services and uses a component-based architecture to provide more than 300 features. Besides, VRP stands out for its application-based tailorable and scalable capabilities.

OPS

- Open Programmability System (OPS) is an open programmable system based on the Python language. IT administrators can program the O&M functions of a switch through Python scripts to quickly innovate functions and implement intelligent O&M.

PoE Features

- Perpetual PoE: When a PoE switch is rebooted after the software version is upgraded, the power supply to PDs is not interrupted. This capability ensures that PDs are not powered off during the switch reboot.
- Fast PoE: S5730-48C/68C-PWR-SI switches can supply power to PDs within 10 seconds after they are powered on. This is different from common switches that generally take 1 to 3 minutes to start to supply power to PDs. When a PoE switch reboots due to a power failure, the PoE switch continues to supply power to the PDs immediately after being powered on without waiting until it finishes reboot. This greatly shortens the power failure time of PDs.

NOTE

For more information about PoE, visit
https://e.huawei.com/en/material/onLineView?materialid=e28cc3ad158140e8af1547bc510ecd34

Product Specifications

Functions and Features

The following table lists the functions and features available on the S5730-SI.

Function and feature metrics for the S5730-SI series

Function and Feature		Description	S5730-48C-SI series	S5730-48C-PWR-SI series	S5730-68C-SI series	S5730-68C-PWR-SI series
Ethernet features	Ethernet basics	Full-duplex, half-duplex, and auto-negotiation	Yes	Yes	Yes	Yes
		Rate auto-negotiation on an interface	Yes	Yes	Yes	Yes
		Flow control on an interface	Yes	Yes	Yes	Yes

Function and Feature		Description	S5730-48C-SI series	S5730-48C-PWR-SI series	S5730-68C-SI series	S5730-68C-PWR-SI series
		Jumbo frames	Yes	Yes	Yes	Yes
		Link aggregation	Yes	Yes	Yes	Yes
		Load balancing among links of a trunk	Yes	Yes	Yes	Yes
		Transparent transmission of Layer 2 protocol packets	Yes	Yes	Yes	Yes
		Device Link Detection Protocol (DLDP)	Yes	Yes	Yes	Yes
		Link Layer Discovery Protocol (LLDP)	Yes	Yes	Yes	Yes
		Link Layer Discovery Protocol-Media Endpoint Discovery (LLDP-MED)	Yes	Yes	Yes	Yes
		Interface isolation	Yes	Yes	Yes	Yes
		Broadcast traffic suppression on an interface	Yes	Yes	Yes	Yes
		Multicast traffic suppression on an interface	Yes	Yes	Yes	Yes
		Unknown unicast traffic suppression on an interface	Yes	Yes	Yes	Yes
		VLAN broadcast traffic suppression	Yes	Yes	Yes	Yes
		VLAN multicast traffic suppression	Yes	Yes	Yes	Yes
		VLAN unknown unicast traffic suppression	Yes	Yes	Yes	Yes
	VLAN	VLAN specification	4094	4094	4094	4094
		VLANIF interface specification	1024	1024	1024	1024
		Access mode	Yes	Yes	Yes	Yes
		Trunk mode	Yes	Yes	Yes	Yes
		Hybrid mode	Yes	Yes	Yes	Yes
		QinQ mode	Yes	Yes	Yes	Yes
		Default VLAN	Yes	Yes	Yes	Yes
		VLAN assignment based on interfaces	Yes	Yes	Yes	Yes

Function and Feature		Description	S5730-48C-SI series	S5730-48C-PWR-SI series	S5730-68C-SI series	S5730-68C-PWR-SI series
		VLAN assignment based on protocols	Yes	Yes	Yes	Yes
		VLAN assignment based on IP subnets	Yes	Yes	Yes	Yes
		VLAN assignment based on MAC addresses	Yes	Yes	Yes	Yes
		VLAN assignment based on MAC address + IP address	Yes	Yes	Yes	Yes
		VLAN assignment based on MAC address + IP address + interface number	Yes	Yes	Yes	Yes
		Adding double VLAN tags to packets based on interfaces	Yes	Yes	Yes	Yes
		VLAN mapping	Yes	Yes	Yes	Yes
		Selective QinQ	Yes	Yes	Yes	Yes
		MUX VLAN	Yes	Yes	Yes	Yes
		Voice VLAN	Yes	Yes	Yes	Yes
		Guest VLAN	Yes	Yes	Yes	Yes
	GVRP	GARP	Yes	Yes	Yes	Yes
		GVRP	Yes	Yes	Yes	Yes
	VCMP	VCMP	Yes	Yes	Yes	Yes
	MAC	MAC address	32K	32K	32K	32K
		Automatic learning of MAC addresses	Yes	Yes	Yes	Yes
		Automatic aging of MAC addresses	Yes	Yes	Yes	Yes
		Static, dynamic, and blackhole MAC address entries	Yes	Yes	Yes	Yes
		Interface-based MAC address learning limiting	Yes	Yes	Yes	Yes
		Sticky MAC	Yes	Yes	Yes	Yes
		MAC address flapping detection	Yes	Yes	Yes	Yes
		MAC address spoofing defense	Yes	Yes	Yes	Yes

Function and Feature		Description	S5730-48C-SI series	S5730-48C-PWR-SI series	S5730-68C-SI series	S5730-68C-PWR-SI series
		Port bridge	Yes	Yes	Yes	Yes
	ARP	Static ARP	Yes	Yes	Yes	Yes
		Dynamic ARP	Yes	Yes	Yes	Yes
		ARP entry	20000	20000	20000	20000
		ARP aging detection	Yes	Yes	Yes	Yes
		Intra-VLAN proxy ARP	Yes	Yes	Yes	Yes
		Routed proxy ARP	Yes	Yes	Yes	Yes
Ethernet loop protection	MSTP	STP	Yes	Yes	Yes	Yes
		RSTP	Yes	Yes	Yes	Yes
		MSTP	Yes	Yes	Yes	Yes
		VBST	Yes	Yes	Yes	Yes
		BPDU protection	Yes	Yes	Yes	Yes
		Root protection	Yes	Yes	Yes	Yes
		Loop protection	Yes	Yes	Yes	Yes
		Defense against TC BPDU attacks	Yes	Yes	Yes	Yes
	Loopback detection	Loop detection on an interface	Yes	Yes	Yes	Yes
	SEP	SEP	Yes	Yes	Yes	Yes
	Smart Link	Smart Link	Yes	Yes	Yes	Yes
		Smart Link multi-instance	Yes	Yes	Yes	Yes
		Monitor Link	Yes	Yes	Yes	Yes
	RRPP	RRPP	Yes	Yes	Yes	Yes
		Single RRPP ring	Yes	Yes	Yes	Yes
		Tangent RRPP ring	Yes	Yes	Yes	Yes
		Intersecting RRPP ring	Yes	Yes	Yes	Yes
		Hybrid networking of RRPP rings and other ring networks	Yes	Yes	Yes	Yes
	ERPS	G.8032 v1	Yes	Yes	Yes	Yes
		G.8032 v2	Yes	Yes	Yes	Yes
		ERPS semi-ring topology	Yes	Yes	Yes	Yes
		ERPS closed-ring	Yes	Yes	Yes	Yes

Function and Feature		Description	S5730-48C-SI series	S5730-48C-PWR-SI series	S5730-68C-SI series	S5730-68C-PWR-SI series
		topology				
IPv4/IPv6 forwarding	IPv4 and unicast routing	IPv4 static routing	Yes	Yes	Yes	Yes
		VRF	Yes	Yes	Yes	Yes
		DHCP client	Yes	Yes	Yes	Yes
		DHCP server	Yes	Yes	Yes	Yes
		DHCP relay	Yes	Yes	Yes	Yes
		Routing policies	Yes	Yes	Yes	Yes
		IPv4 routes	8K	8K	8K	8K
		RIPv1	Yes	Yes	Yes	Yes
		RIPv2	Yes	Yes	Yes	Yes
		OSPF	Yes	Yes	Yes	Yes
		Policy-based routing (PBR)	Yes	Yes	Yes	Yes
	Multicast routing features	IGMPv1/v2/v3	Yes	Yes	Yes	Yes
		PIM-DM	Yes	Yes	Yes	Yes
		PIM-SM	Yes	Yes	Yes	Yes
		MSDP	Yes	Yes	Yes	Yes
		IPv4 multicast routes	1.5K	1.5K	1.5K	1.5K
		IPv6 multicast routes	0.5K	0.5K	0.5K	0.5K
		Multicast routing policies	Yes	Yes	Yes	Yes
		RPF	Yes	Yes	Yes	Yes
	IPv6 features	IPv6 protocol stack	Yes	Yes	Yes	Yes
		ND	Yes	Yes	Yes	Yes
		ND entry	10K	10K	10K	10K
		ND snooping	Yes	Yes	Yes	Yes
		DHCPv6 snooping	Yes	Yes	Yes	Yes
		RIPng	Yes	Yes	Yes	Yes
		DHCPv6 server	Yes	Yes	Yes	Yes
		DHCPv6 relay	Yes	Yes	Yes	Yes
		OSPFv3	Yes	Yes	Yes	Yes
		IPv6 routes	4K	4K	4K	4K
		VRRP6	Yes	Yes	Yes	Yes
		MLDv1/v2	Yes	Yes	Yes	Yes

Function and Feature		Description	S5730-48C-SI series	S5730-48C-PWR-SI series	S5730-68C-SI series	S5730-68C-PWR-SI series
		PIM-DM for IPv6	Yes	Yes	Yes	Yes
		PIM-SM for IPv6	Yes	Yes	Yes	Yes
Layer 2 multicast features	-	IGMPv1/v2/v3 snooping	Yes	Yes	Yes	Yes
		IGMP snooping proxy	Yes	Yes	Yes	Yes
		MLD snooping	Yes	Yes	Yes	Yes
		Multicast traffic suppression	Yes	Yes	Yes	Yes
		Inter-VLAN multicast replication	Yes	Yes	Yes	Yes
Device reliability	Stacking	Service interface-based stacking	Yes	Yes	Yes	Yes
		Service interface-based stacking bandwidth	Up to 272 Gbit/s	Up to 272 Gbit/s	Up to 272 Gbit/s	Up to 272 Gbit/s
		Stack card-based stacking	Yes	Yes	Yes	Yes
		Stack card-based stacking bandwidth (Unidirectional)	Up to 80 Gbit/s	Up to 80 Gbit/s	Up to 80 Gbit/s	Up to 80 Gbit/s
		Maximum number of stacked devices (Unidirectional)	9	9	9	9
		Stack bandwidth	Up to 272 Gbit/s	Up to 272 Gbit/s	Up to 272 Gbit/s	Up to 272 Gbit/s
	VRRP	VRRP standard protocol	Yes	Yes	Yes	Yes
Ethernet OAM	EFM (802.3ah)	Automatic discovery of links	Yes	Yes	Yes	Yes
		Link fault detection	Yes	Yes	Yes	Yes
		Link troubleshooting	Yes	Yes	Yes	Yes
		Remote loopback	Yes	Yes	Yes	Yes
	CFM (802.1ag)	Software-level CCM	Yes	Yes	Yes	Yes
		802.1ag MAC ping	Yes	Yes	Yes	Yes
		802.1ag MAC trace	Yes	Yes	Yes	Yes
	OAM association	Association between 802.1ag and 802.3ah	Yes	Yes	Yes	Yes
	Y.1731	Unidirectional delay and jitter measurement	Yes	Yes	Yes	Yes

Function and Feature		Description	S5730-48C-SI series	S5730-48C-PWR-SI series	S5730-68C-SI series	S5730-68C-PWR-SI series
		Bidirectional delay and jitter measurement	Yes	Yes	Yes	Yes
QoS features	Traffic classification	Traffic classification based on ACLs	Yes	Yes	Yes	Yes
		Configuring traffic classification priorities	Yes	Yes	Yes	Yes
		Matching the simple domains of packets	Yes	Yes	Yes	Yes
	Traffic behavior	Traffic filtering	Yes	Yes	Yes	Yes
		Traffic policing (CAR)	Yes	Yes	Yes	Yes
		Modifying the packet priorities	Yes	Yes	Yes	Yes
		Modifying the simple domains of packets	Yes	Yes	Yes	Yes
		Modifying the packet VLANs	Yes	Yes	Yes	Yes
	Traffic shaping	Traffic shaping on an egress interface	Yes	Yes	Yes	Yes
		Traffic shaping on queues on an interface	Yes	Yes	Yes	Yes
	Congestion avoidance	Tail drop	Yes	Yes	Yes	Yes
	Congestion management	Priority Queuing (PQ)	Yes	Yes	Yes	Yes
		Weighted Deficit Round Robin (WDRR)	Yes	Yes	Yes	Yes
		PQ+WDRR	Yes	Yes	Yes	Yes
		Weighted Round Robin (WRR)	Yes	Yes	Yes	Yes
		PQ+WRR	Yes	Yes	Yes	Yes
ACL	Packet filtering at Layer 2 to Layer 4	Number of rules per IPv4 ACL	2K	2K	2K	2K
		Number of rules per IPv6 ACL	2K	2K	2K	2K
		Basic IPv4 ACL	Yes	Yes	Yes	Yes
		Advanced IPv4 ACL	Yes	Yes	Yes	Yes
		Basic IPv6 ACL	Yes	Yes	Yes	Yes
		Advanced IPv6 ACL	Yes	Yes	Yes	Yes
		Layer 2 ACL	Yes	Yes	Yes	Yes

Function and Feature		Description	S5730-48C-SI series	S5730-48C-PWR-SI series	S5730-68C-SI series	S5730-68C-PWR-SI series
		User-defined ACL	Yes	Yes	Yes	Yes
Configuration and maintenance	Login and configuration management	Command line interface (CLI)-based configuration	Yes	Yes	Yes	Yes
		Console terminal service	Yes	Yes	Yes	Yes
		Telnet terminal service	Yes	Yes	Yes	Yes
		SSH v1.5	Yes	Yes	Yes	Yes
		SSH v2.0	Yes	Yes	Yes	Yes
		SNMP-based NMS for unified configuration	Yes	Yes	Yes	Yes
		Web page-based configuration and management	Yes	Yes	Yes	Yes
		EasyDeploy (client)	Yes	Yes	Yes	Yes
		SVF	Yes	Yes	Yes	Yes
		OPS	Yes	Yes	Yes	Yes
	File system	Directory and file management	Yes	Yes	Yes	Yes
		File upload and download	Yes	Yes	Yes	Yes
	Monitoring and maintenance	eMDI	Yes	Yes	Yes	Yes
		Hardware monitoring	Yes	Yes	Yes	Yes
		Log information output	Yes	Yes	Yes	Yes
		Alarm information output	Yes	Yes	Yes	Yes
		Debugging information output	Yes	Yes	Yes	Yes
		Port mirroring	Yes	Yes	Yes	Yes
		Flow mirroring	Yes	Yes	Yes	Yes
		Remote mirroring	Yes	Yes	Yes	Yes
		Energy saving	Yes	Yes	Yes	Yes
	Version upgrade	Version upgrade	Yes	Yes	Yes	Yes
		Version rollback	Yes	Yes	Yes	Yes
Security	ARP security	ARP packet rate limiting	Yes	Yes	Yes	Yes
		ARP anti-spoofing	Yes	Yes	Yes	Yes
		Association between	Yes	Yes	Yes	Yes

Function and Feature		Description	S5730-48C-SI series	S5730-48C-PWR-SI series	S5730-68C-SI series	S5730-68C-PWR-SI series
		ARP and STP				
		Dynamic ARP Inspection (DAI)	Yes	Yes	Yes	Yes
		Static ARP Inspection (SAI)	Yes	Yes	Yes	Yes
		Egress ARP Inspection (EAI)	Yes	Yes	Yes	Yes
	IP security	ICMP attack defense	Yes	Yes	Yes	Yes
		IPSG for IPv4	Yes	Yes	Yes	Yes
		IPSG user capacity	1000	1000	1000	1000
		IPSG for IPv6	Yes	Yes	Yes	Yes
		IPSGv6 user capacity	512	512	512	512
	Local attack defense	CPU attack defense	Yes	Yes	Yes	Yes
	MFF	MFF	Yes	Yes	Yes	Yes
	DHCP snooping	DHCP snooping	Yes	Yes	Yes	Yes
		Option 82 function	Yes	Yes	Yes	Yes
		Dynamic rate limiting for DHCP packets	Yes	Yes	Yes	Yes
	Attack defense	Defense against malformed packet attacks	Yes	Yes	Yes	Yes
		Defense against UDP flood attacks	Yes	Yes	Yes	Yes
		Defense against TCP SYN flood attacks	Yes	Yes	Yes	Yes
		Defense against ICMP flood attacks	Yes	Yes	Yes	Yes
		Defense against packet fragment attacks	Yes	Yes	Yes	Yes
		Local URPF	Yes	Yes	Yes	Yes
User access and authentication	AAA	Local authentication	Yes	Yes	Yes	Yes
		Local authorization	Yes	Yes	Yes	Yes
		RADIUS authentication	Yes	Yes	Yes	Yes
		RADIUS authorization	Yes	Yes	Yes	Yes
		RADIUS accounting	Yes	Yes	Yes	Yes
		HWTACACS	Yes	Yes	Yes	Yes

Function and Feature		Description	S5730-48C-SI series	S5730-48C-PWR-SI series	S5730-68C-SI series	S5730-68C-PWR-SI series
		authentication				
		HWTACACS authorization	Yes	Yes	Yes	Yes
		HWTACACS accounting	Yes	Yes	Yes	Yes
	NAC	802.1X authentication	Yes	Yes	Yes	Yes
		MAC address authentication	Yes	Yes	Yes	Yes
		Portal authentication	Yes	Yes	Yes	Yes
		Hybrid authentication	Yes	Yes	Yes	Yes
	Policy association	Functioning as the access device	Yes	Yes	Yes	Yes
Network management	-	Ping	Yes	Yes	Yes	Yes
		Tracert	Yes	Yes	Yes	Yes
		NQA	Yes	Yes	Yes	Yes
		NTP	Yes	Yes	Yes	Yes
		sFlow	Yes	Yes	Yes	Yes
		SNMP v1	Yes	Yes	Yes	Yes
		SNMP v2c	Yes	Yes	Yes	Yes
		SNMP v3	Yes	Yes	Yes	Yes
		HTTP	Yes	Yes	Yes	Yes
		HTTPS	Yes	Yes	Yes	Yes
		RMON				
		NETCONF/YANG	Yes	Yes	Yes	Yes
Interoperability	-	VLAN-based Spanning Tree (VBST)	Yes	Yes	Yes	Yes
		Link-type Negotiation Protocol (LNP)	Yes	Yes	Yes	Yes
		VLAN Central Management Protocol (VCMP)	Yes	Yes	Yes	Yes

NOTE

This content is applicable only to regions outside mainland China. Huawei reserves the right to interpret this content.

Hardware Specifications

The following table lists the hardware specifications of the S5730-SI.

Hardware specifications of the S5730-48C-SI series

Item		S5730-48C-SI-AC	S5730-48C-PWR-SI-AC
Physical specifications	Chassis dimensions (W x D x H, mm)	442 x 420 x 44.4	442 x 420 x 44.4
	Chassis height	1 U	1 U
	Chassis weight (full configuration weight, including weight of packaging materials)	8.2 kg	8.3 kg
Fixed port	GE port	24	24
	10GE port	8	8
Flexible card	Card slot	1	1
	Card type	4-port 40GE QSFP+ interface card	4-port 40GE QSFP+ interface card
	Card specification	For details about cards, see Card Types.	For details about cards, see Card Types.
Management port	ETH port	Supported	Supported
	Console port (RJ45)	Supported	Supported
	USB port	USB 2.0	USB 2.0
CPU	Frequency	1 GHz	1 GHz
	Cores	2	2
Storage	Memory (RAM)	1 GB	1 GB
	Flash memory	Hardware: 512 MB, of which 240 MB is available for users	Hardware: 512 MB, of which 240 MB is available for users
Power supply system	Power supply type	• 150 W AC (pluggable) • 150 W DC (pluggable)	• 500 W AC • 650 W DC (pluggable)
	Power supply specification	For details about power supplies, see the section Power Supply.	For details about power supplies, see the section Power Supply.
	Rated voltage range	• AC: 100 V AC to 240 V AC; 50/60 Hz • DC: -48 V DC to -60 V DC	• AC: 100 V AC to 240 V AC; 50/60 Hz • DC: -48 V DC to -60 V DC
	Maximum voltage range	• AC: 90 V AC to 264 V AC; 47-63 Hz • DC: -36 V DC to -72 V DC	• AC: 90 V AC to 264 V AC; 47-63 Hz • DC: -38.4 V DC to -72 V DC
	Maximum input current	• 150 W AC: 3 A • 150 W DC: 6 A	• 500 W AC: 7 A • 650 W DC: 20 A
	Maximum power consumption of the device	62.4 W (without cards)	• Without PDs and cards: 83.2 W • With PDs: 967 W (PoE: 739.2 W)
	Power consumption in the case of 30% traffic load[1]	39.02 W (without cards)	44.2 W (without cards)
	Power consumption in	43.18 W (without cards)	48.1 W (without cards)

Item		S5730-48C-SI-AC	S5730-48C-PWR-SI-AC
	the case of 100% traffic load[1]		
Heat dissipation system	Heat dissipation mode	Air-cooled heat dissipation and intelligent fan speed adjustment	Air-cooled heat dissipation and intelligent fan speed adjustment
	Number of fan modules	Pluggable dual fans	Pluggable dual fans
	Airflow	Air flows in from the left and right sides as well as the front panel, and exhausts from the rear panel	Air flows in from the left and right sides as well as the front panel, and exhausts from the rear panel
	Maximum heat dissipation of the device (BTU/hour)	• 281 (without cards) • 372 (with a 4-port 40GE card)	• Without PDs and cards: 281 • With PDs: 3300
Environment parameters	Long-term operating temperature	• 0-1800 m: 0°C to 45°C • 1800-5000 m: The operating temperature decreases 1°C every time the altitude increases 220 m.	• 0-1800 m: 0°C to 45°C • 1800-5000 m: The operating temperature decreases 1°C every time the altitude increases 220 m.
	Short-term operating temperature	• 0-1800 m: -5°C to +50°C • 1800-5000 m: The operating temperature decreases 1°C every time the altitude increases 220 m. **NOTE** Short term indicates that the successive operating time is no more than 96 hours, the total operating time is no more than 360 hours, or the number of times the operating temperature is over 45°C is no more than 15 in a year.	• 0-1800 m: -5°C to +50°C • 1800-5000 m: The operating temperature decreases 1°C every time the altitude increases 220 m. **NOTE** Short term indicates that the successive operating time is no more than 96 hours, the total operating time is no more than 360 hours, or the number of times the operating temperature is over 45°C is no more than 15 in a year.
	Storage temperature	-40°C to +70°C	-40°C to +70°C
	Relative humidity	5%–95% (non-condensing)	5%–95% (non-condensing)
	Operating altitude	• AC: 5000 m • DC: 2000 m	• AC: 5000 m • DC: 2000 m
	Noise under normal temperature (sound power)	59.4 dB(A)	57.4 dB(A)
	Noise under high temperature (sound power)	71.9 dB(A)	69.9 dB(A)
	Noise under normal temperature (sound pressure)	47.3 dB(A)	57.5 dB(A)
	Surge protection specification (RJ45 service port)	±7 kV	±7 kV
	Surge protection specification (power port)	• AC power interface: ±6 kV in differential or common mode • DC power interface: ±1 kV in	• AC power interface: ±6 kV in differential or common mode • DC power interface: ±2 kV in

Item		S5730-48C-SI-AC	S5730-48C-PWR-SI-AC
		differential mode; ±2 kV in common mode	differential mode; ±4 kV in common mode
Reliability	MTBF (year)[2]	47.83	46.8
	MTTR (hour)	2	2
	Availability	> 0.99999	> 0.99999
Certification		EMC certification Safety certification Manufacturing certification For details about certifications, see the section Safety and Regulatory Compliance.	EMC certification Safety certification Manufacturing certification For details about certifications, see the section Safety and Regulatory Compliance.

Hardware specifications of the S5730-68C-SI series

Item		S5730-68C-SI-AC	S5730-68C-PWR-SI
Physical specifications	Chassis dimensions (W x D x H, mm)	442 x 420 x 44.4	• With a 500 W/650 W power supply: 442 x 420 x 44.4 • With a 1000 W power supply: 442 x 420 x 44.4 • With a 1150 W power supply: 442 x 507 x 44.4
	Chassis height	1 U	1 U
	Chassis weight (full configuration weight, including weight of packaging materials)	8.47 kg	8 kg
Fixed port	GE port	48	48
	10GE port	4	4
Flexible card	Card slot	1	1
	Card type	4-port 40GE QSFP+ interface card	4-port 40GE QSFP+ interface card
	Card specification	For details about cards, see Card Types.	For details about cards, see Card Types.
Management port	ETH port	Supported	Supported
	Console port (RJ45)	Supported	Supported
	USB port	USB 2.0	USB 2.0
CPU	Frequency	1 GHz	1 GHz
	Cores	2	2
Storage	Memory (RAM)	1 GB	1 GB
	Flash memory	Hardware: 512 MB, of which 240 MB is available for users	Hardware: 512 MB, of which 240 MB is available for users
Power supply	Power supply type	• 150 W AC (pluggable)	• 1150 W AC (pluggable)

Item		S5730-68C-SI-AC	S5730-68C-PWR-SI
system		• 150 W DC (pluggable)	• 1000 W AC (pluggable) • 500 W AC • 650 W DC (pluggable)
	Power supply specification	For details about power supplies, see the section Power Supply.	For details about power supplies, see the section Power Supply.
	Rated voltage range	• AC: 100 V AC to 240 V AC; 50/60 Hz • DC: -48 V DC to -60 V DC	• AC: 100 V AC to 240 V AC; 50/60 Hz • DC: -48 V DC to -60 V DC
	Maximum voltage range	• AC: 90 V AC to 264 V AC; 47-63 Hz • DC: -36 V DC to -72 V DC	• AC: 90 V AC to 264 V AC; 47-63 Hz • DC: -38.4 V DC to -72 V DC
	Maximum input current	• 150 W AC: 3 A • 150 W DC: 6 A	• 500 W AC: 7 A • 650 W DC: 20 A • 1150 W: 10 A • 1000 W: 12A
	Maximum power consumption of the device	65.4 W (without cards)	• Without PDs and cards: 68.3 W • 500 W AC/650 W DC (with PDs but not cards): 925 W (PoE: 739.2 W) • 1150 W AC/1000 W AC (with PDs but not cards): 1733 W (PoE: 1440 W)
	Power consumption in the case of 30% traffic load[1]	42.3 W (without cards)	50.1 W (without cards)
	Power consumption in the case of 100% traffic load[1]	49.86 W (without cards)	56.6 W (without cards)
Heat dissipation system	Heat dissipation mode	Air-cooled heat dissipation and intelligent fan speed adjustment	Air-cooled heat dissipation and intelligent fan speed adjustment
	Number of fan modules	Pluggable dual fans	Pluggable dual fans
	Airflow	Air flows in from the left and right sides as well as the front panel, and exhausts from the rear panel	Air flows in from the left and right sides as well as the front panel, and exhausts from the rear panel
	Maximum heat dissipation of the device (BTU/hour)	223 (without cards)	• Without PDs and cards: 223 • 500 W AC/650 W DC (with PDs but not cards): 3156 • 1150 W AC/1000 W AC (with PDs and cards): 5915
Environment parameters	Long-term operating temperature	• 0-1800 m: 0°C to 45°C • 1800-5000 m: The operating temperature decreases 1°C every time the altitude increases 220 m.	• 0-1800 m: 0°C to 45°C • 1800-5000 m: The operating temperature decreases 1°C every time the altitude increases 220 m.
	Short-term operating temperature	• 0-1800 m: -5°C to +50°C • 1800-5000 m: The operating	• 0-1800 m: -5°C to +50°C • 1800-5000 m: The operating

Item		S5730-68C-SI-AC	S5730-68C-PWR-SI
		temperature decreases 1°C every time the altitude increases 220 m. **NOTE** Short term indicates that the successive operating time is no more than 96 hours, the total operating time is no more than 360 hours, or the number of times the operating temperature is over 45°C is no more than 15 in a year.	temperature decreases 1°C every time the altitude increases 220 m. **NOTE** Short term indicates that the successive operating time is no more than 96 hours, the total operating time is no more than 360 hours, or the number of times the operating temperature is over 45°C is no more than 15 in a year.
	Storage temperature	-40°C to +70°C	-40°C to +70°C
	Relative humidity	5%–95% (non-condensing)	5%–95% (non-condensing)
	Operating altitude	• AC: 5000 m • DC: 2000 m	• AC: 5000 m • DC: 5000 m
	Noise under normal temperature (sound power)	58.9 dB(A)	64.3 dB(A)
	Noise under high temperature (sound power)	71.1 dB(A)	70.4 dB(A)
	Noise under normal temperature (sound pressure)	46.8 dB(A)	56.3 dB(A)
	Surge protection specification (RJ45 service port)	±7 kV	±7 kV
	Surge protection specification (power port)	• AC power interface: ±6 kV in differential or common mode • DC power interface: ±1 kV in differential mode; ±2 kV in common mode	• 500W AC power interface: ±6 kV in differential or common mode • 650W DC power interface: ±2 kV in differential mode; ±4 kV in common mode • 1150W AC power interface: ±2 kV in differential mode; ±4 kV in common mode • 1000W AC power interface: ±6 kV in differential mode; ±6 kV in common mode
Reliability	MTBF (year)[2]	46.53	43.28
	MTTR (hour)	2	2
	Availability	> 0.99999	> 0.99999
Certification		EMC certification Safety certification Manufacturing certification For details about certifications, see the section Safety and Regulatory Compliance.	EMC certification Safety certification Manufacturing certification For details about certifications, see the section Safety and Regulatory Compliance.

NOTE

1: The power consumption under different load conditions is calculated according to the ATIS standard. Additionally, the EEE function is enabled and there is no PoE power output.

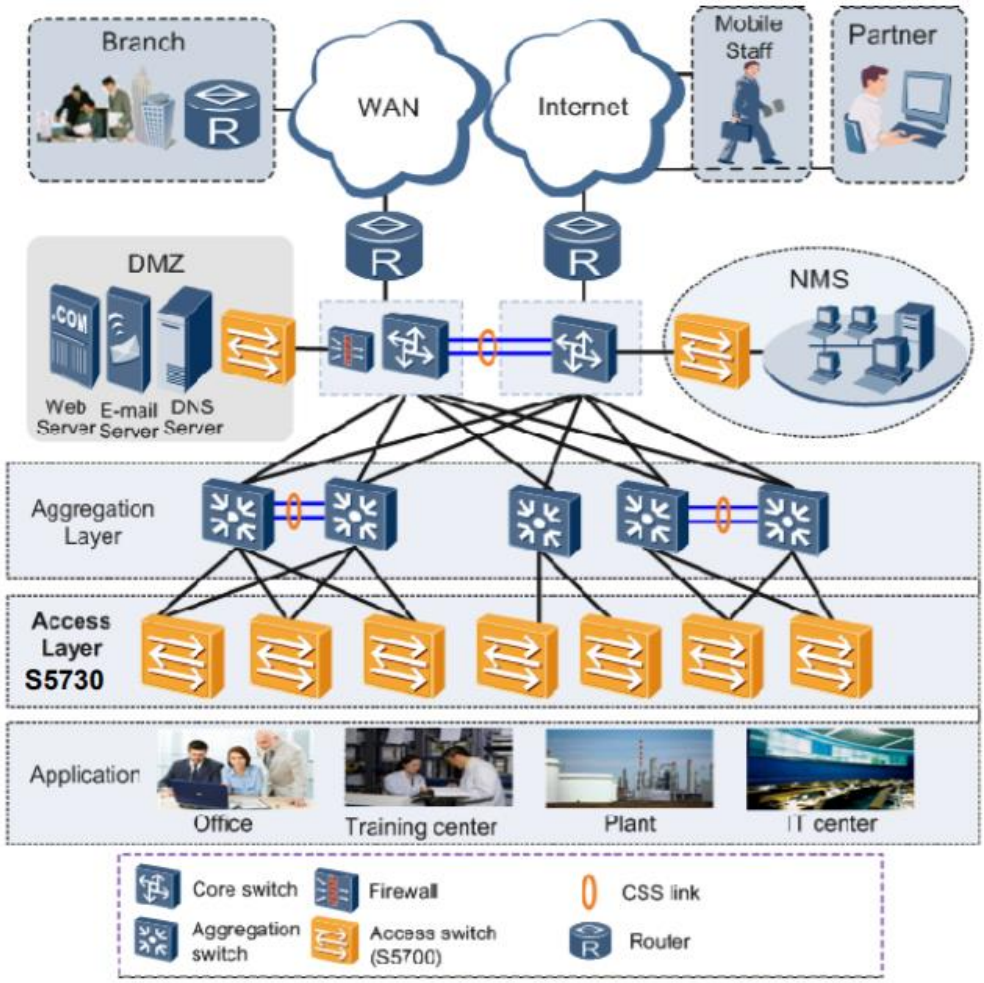
2: The reliability parameter values are calculated based on the typical configuration of the device. The parameter values vary according to the modules configured by the customer.

Networking and Applications

Large-sized Enterprise Campus Networks

The S5730-SI provides various terminal security management features, and supports functions such as PoE, voice VLAN, and QoS. The switch can be used for desktop access and provides gigabit access speed.

Position of the S5730-SI on a large-sized enterprise campus network



The S5730-SI provides various security features including ARP security, IP security, IP source guard, and user access control policies such as NAC and ACL, to control access of user terminals.

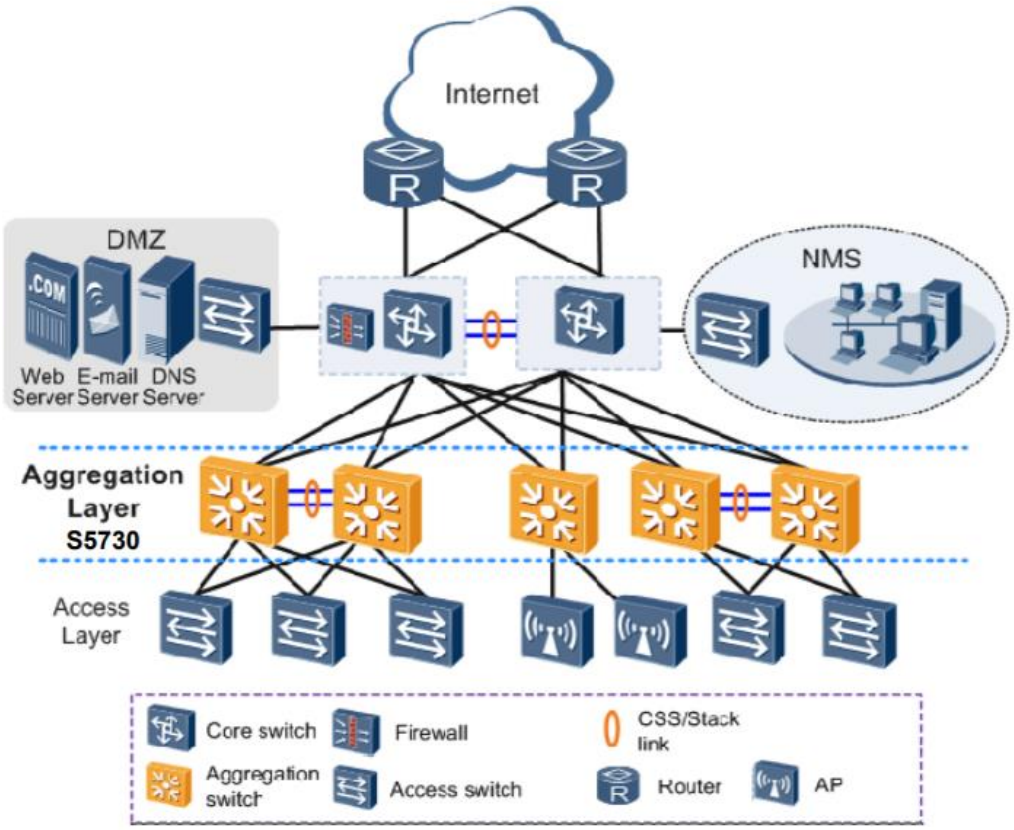
In addition, the switch supports the Link Aggregation Control Protocol (LACP) to provide multi-link access for servers, improving link bandwidth and reliability.

In terms of device management, the S5730-SI provides EasyOperation and USB-based deployment, facilitating device deployment and management.

Small- and Medium-sized Enterprise Campus Networks

The S5730-SI series switches can be located at the aggregation layer to build a high-performance, reliable enterprise campus network.

Position of the S5730-SI on a small- and medium-sized enterprise campus network

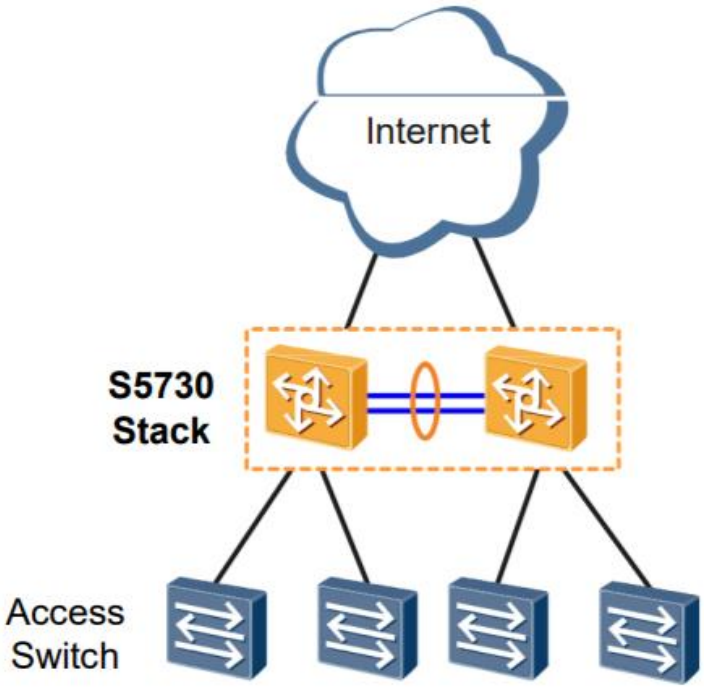


On an enterprise network or a campus network, the S5730-SI series switches connect to access switches through GE or 10GE ports and connect to core switches through 10GE optical ports, providing high performance and large switching capacity. The network provides 10 Gbit/s rate for the backbone layer and 100 Mbit/s access rate for terminals, meeting requirements for high bandwidth and multi-service.

The S5730-SI series switches support SEP and RRPP to implement millisecond-level protection switching. The switches form a stack system by using iStack technology to implement the distributed forwarding structure and fast fault recovery. The stack system increases the number of user interfaces and improves packet processing capability. The member switches can be managed in a uniform manner to facilitate network management and maintenance.

Small-Sized Enterprise Campus Networks

Position of the S5730-SI on a small-sized enterprise campus network



The S5730-SI series switches provide powerful aggregation and routing capabilities and can be used as core switches on a small-sized enterprise campus network. The S5730-SI series switches use iStack to ensure high reliability. The switches provide various access control policies to achieve centralized user management and simplify configuration.

Product Accessories

Optical Modules and Fibers

The S5730-SI supports the following GE and 10GE optical modules:

- GE: 100 m electrical, 500 m optical multi-mode, 10/40/80/100 km optical single-mode, two pairs of bidirectional optical modules (10/40 km)
- 10GE: 100/220/300 m SFP+ multi-mode, 1.4/10/40/80 km optical SFP+
- 40GE: 150/400 m QSFP+ optical multi-mode, 1.4/2/10/40 km optical single-mode

Optical fibers fall into single-mode and multi-mode fibers. Single-mode optical modules use single-mode fibers, and multi-mode optical modules use multi-mode fibers. For a non-BIDI optical module, each optical interface must be configured with a Tx optical fiber and an Rx optical fiber of the same type. For a BIDI optical module, only one optical fiber needs to be configured.

The fibers and optical modules supported by Huawei switches are being updated. For the latest information, visit http://support.huawei.com/enterprise/en/doc/EDOC1000013597?section=j07w&topicName=pluggable-modules-for-interfaces or contact your local Huawei sales office.

Stack Cables

The S5730-SI switches support service port stacking. The applicable stack cables are as follows:

- AOC cable

An active optical network (AOC) cable integrates an optical module and a fiber. The AOC cables are available in SFP-10G-AOC3M and SFP-10G-AOC10M.

- SFP+ high-speed cable

The SFP+ high-speed cable also integrates an optical module and a fiber. The SFP+ high-speed cables are available in SFP-10G-CU1M, SFP-10G-CU3M, SFP-10G-CU5M, and SFP-10G-CU10M.

- QSFP+ high-speed cable

The QSFP+ high-speed cable also integrates an optical module and a fiber. The QSFP+ high-speed cables are available in QSFP-40G-CU1M, QSFP-40G-CU3M, and QSFP-40G-CU5M.

The following table lists the stack cable types and connectors.

Stack cable types and connectors applicable to the S5730-SI series

Stack Cable	Model	Cable Length	Connector
AOC	SFP-10G-AOC3M	3 m	SFP+
	SFP-10G-AOC10M	5 m	SFP+
SFP+ high-speed	SFP-10G-CU1M	1 m	SFP+
	SFP-10G-CU3M	3 m	SFP+
	SFP-10G-CU5M	5 m	SFP+
	SFP-10G-CU10M	10 m	SFP+
QSFP+ high-speed	QSFP-40G-CU1M	1 m	QSFP+
	QSFP-40G-CU3M	3 m	QSFP+
	QSFP-40G-CU5M	5 m	QSFP+

NOTE

For more information about stack cables applicable to the S5730-SI series, visit http://support.huawei.com/enterprise/en/doc/EDOC1000013597?section=j07f&topicName=cables or contact your local Huawei sales office.

Safety and Regulatory Compliance

The following table lists the safety and regulatory compliance of the S5730-SI.

Safety and regulatory compliance of the S5730-SI series

Certification Category	Description
Safety	• IEC 60950-1 • EN 60950-1/A11/A12 • UL 60950-1 • CSA C22.2 No 60950-1 • AS/NZS 60950.1 • CNS 14336-1 • IEC60825-1 • IEC60825-2 • EN60825-1 • EN60825-2
Electromagnetic Compatibility (EMC)	• CISPR22 Class A • CISPR24 • EN55022 Class A

Certification Category	Description
	• EN55024 • ETSI EN 300 386 Class A • CFR 47 FCC Part 15 Class A • ICES 003 Class A • AS/NZS CISPR22 Class A • VCCI Class A • IEC61000-4-2 • ITU-T K 20 • ITU-T K 21 • ITU-T K 44 • CNS13438
Environment	• RoHS • REACH • WEEE

NOTE

- EMC: electromagnetic compatibility
- CISPR: International Special Committee on Radio Interference
- EN: European Standard
- ETSI: European Telecommunications Standards Institute
- CFR: Code of Federal Regulations
- FCC: Federal Communication Commission
- IEC: International Electrotechnical Commission
- AS/NZS: Australian/New Zealand Standard
- VCCI: Voluntary Control Council for Interference
- UL: Underwriters Laboratories
- CSA: Canadian Standards Association
- IEEE: Institute of Electrical and Electronics Engineers
- RoHS: restriction of the use of certain hazardous substances
- REACH: Registration Evaluation Authorization and Restriction of Chemicals
- WEEE: Waste Electrical and Electronic Equipment

MIB and Standards Compliance

Supported MIBs

The following table lists the MIBs supported by S5730-SI.

MIBs supported by the S5730-SI series

Category	MIB
Public MIB	• BRIDGE-MIB • DISMAN-NSLOOKUP-MIB • DISMAN-PING-MIB • DISMAN-TRACEROUTE-MIB • ENTITY-MIB • EtherLike-MIB

Category	MIB
	• IF-MIB • IP-FORWARD-MIB • IPv6-MIB • LAG-MIB • LLDP-EXT-DOT1-MIB • LLDP-EXT-DOT3-MIB • LLDP-MIB • NOTIFICATION-LOG-MIB • NQA-MIB • OSPF-TRAP-MIB • P-BRIDGE-MIB • Q-BRIDGE-MIB • RFC1213-MIB • RIPv2-MIB • RMON2-MIB • RMON-MIB • SAVI-MIB • SNMP-FRAMEWORK-MIB • SNMP-MPD-MIB • SNMP-NOTIFICATION-MIB • SNMP-TARGET-MIB • SNMP-USER-BASED-SM-MIB • SNMPv2-MIB • TCP-MIB • UDP-MIB
Huawei-proprietary MIB	• HUAWEI-AAA-MIB • HUAWEI-ACL-MIB • HUAWEI-ALARM-MIB • HUAWEI-ALARM-RELIABILITY-MIB • HUAWEI-BASE-TRAP-MIB • HUAWEI-BRAS-RADIUS-MIB • HUAWEI-BRAS-SRVCFG-EAP-MIB • HUAWEI-BRAS-SRVCFG-STATICUSER-MIB • HUAWEI-CBQOS-MIB • HUAWEI-CDP-COMPLIANCE-MIB • HUAWEI-CONFIG-MAN-MIB • HUAWEI-CPU-MIB • HUAWEI-DAD-TRAP-MIB • HUAWEI-DC-MIB • HUAWEI-DATASYNC-MIB • HUAWEI-DEVICE-MIB • HUAWEI-DHCPR-MIB • HUAWEI-DHCPS-MIB • HUAWEI-DHCP-SNOOPING-MIB

Category	MIB
	• HUAWEI-DIE-MIB • HUAWEI-DNS-MIB • HUAWEI-DLDP-MIB • HUAWEI-ELMI-MIB • HUAWEI-ERPS-MIB • HUAWEI-ERRORDOWN-MIB • HUAWEI-ENERGYMNGT-MIB • HUAWEI-EASY-OPERATION-MIB • HUAWEI-ENTITY-EXTENT-MIB • HUAWEI-ENTITY-TRAP-MIB • HUAWEI-ETHARP-MIB • HUAWEI-ETHOAM-MIB • HUAWEI-FLASH-MAN-MIB • HUAWEI-FWD-RES-TRAP-MIB • HUAWEI-GARP-APP-MIB • HUAWEI-GTSM-MIB • HUAWEI-HGMP-MIB • HUAWEI-HWTACACS-MIB • HUAWEI-IF-EXT-MIB • HUAWEI-INFOCENTER-MIB • HUAWEI-IPPOOL-MIB • HUAWEI-IPV6-MIB • HUAWEI-ISOLATE-MIB • HUAWEI-L2IF-MIB • HUAWEI-L2MAM-MIB • HUAWEI-L2VLAN-MIB • HUAWEI_LDT-MIB • HUAWEI-LLDP-MIB • HUAWEI-MAC-AUTHEN-MIB • HUAWEI-MEMORY-MIB • HUAWEI-MFF-MIB • HUAWEI-MFLP-MIB • HUAWEI-MSTP-MIB • HUAWEI-MULTICAST-MIB • HUAWEI-NAP-MIB • HUAWEI-NTPV3-MIB • HUAWEI-PERFORMANCE-MIB • HUAWEI-PORT-MIB • HUAWEI-PORTAL-MIB • HUAWEI-QINQ-MIB • HUAWEI-RIPv2-EXT-MIB • HUAWEI-RM-EXT-MIB • HUAWEI-RRPP-MIB • HUAWEI-SECURITY-MIB • HUAWEI-SEP-MIB

Category	MIB
	• HUAWEI-SNMP-EXT-MIB • HUAWEI-SSH-MIB • HUAWEI-STACK-MIB • HUAWEI-SWITCH-L2MAM-EXT-MIB • HUAWEI-SWITCH-SRV-TRAP-MIB • HUAWEI-SYS-MAN-MIB • HUAWEI-TCP-MIB • HUAWEI-TFTPC-MIB • HUAWEI-TRNG-MIB • HUAWEI-XQOS-MIB

For more information about MIBs supported by the S5730-SI series, visit https://support.huawei.com/enterprise/en/switches/s5700-pid-6691579?category=reference-guides&subcategory=mib-reference

Standard Compliance

The following table lists the standards that the S5730-SI complies with.

Standard compliance list of the S5730-SI series

Standard Organization	Standard or Protocol
IETF	• RFC 768 User Datagram Protocol (UDP) • RFC 792 Internet Control Message Protocol (ICMP) • RFC 793 Transmission Control Protocol (TCP) • RFC 826 Ethernet Address Resolution Protocol (ARP) • RFC 854 Telnet Protocol Specification • RFC 951 Bootstrap Protocol (BOOTP) • RFC 959 File Transfer Protocol (FTP) • RFC 1058 Routing Information Protocol (RIP) • RFC 1112 Host extensions for IP multicasting • RFC 1157 A Simple Network Management Protocol (SNMP) • RFC 1256 ICMP Router Discovery • RFC 1305 Network Time Protocol Version 3 (NTP) • RFC 1349 Internet Protocol (IP) • RFC 1493 Definitions of Managed Objects for Bridges • RFC 1542 Clarifications and Extensions for the Bootstrap Protocol • RFC 1643 Ethernet Interface MIB • RFC 1757 Remote Network Monitoring (RMON) • RFC 1901 Introduction to Community-based SNMPv2 • RFC 1902-1907 SNMP v2 • RFC 1981 Path MTU Discovery for IP version 6 • RFC 2131 Dynamic Host Configuration Protocol (DHCP) • RFC 2328 OSPF Version 2 • RFC 2453 RIP Version 2 • RFC 2460 Internet Protocol, Version 6 Specification (IPv6) • RFC 2461 Neighbor Discovery for IP Version 6 (IPv6) • RFC 2462 IPv6 Stateless Address Auto configuration

Standard Organization	Standard or Protocol
	• RFC 2463 Internet Control Message Protocol for IPv6 (ICMPv6) • RFC 2474 Differentiated Services Field (DS Field) • RFC 2740 OSPF for IPv6 (OSPFv3) • RFC 2863 The Interfaces Group MIB • RFC 2597 Assured Forwarding PHB Group • RFC 2598 An Expedited Forwarding PHB • RFC 2571 SNMP Management Frameworks • RFC 2865 Remote Authentication Dial In User Service (RADIUS) • RFC 3046 DHCP Option82 • RFC 3376 Internet Group Management Protocol, Version 3 (IGMPv3) • RFC 3513 IP Version 6 Addressing Architecture • RFC 3579 RADIUS Support For EAP • RFC 4271 A Border Gateway Protocol 4 (BGP-4) • RFC 4760 Multiprotocol Extensions for BGP-4 • draft-grant-tacacs-02 TACACS+ • RFC 6241 Network Configuration Protocol (NETCONF) • RFC 6020 YANG - A Data Modeling Language for the Network Configuration Protocol (NETCONF)
IEEE	• IEEE 802.1D Media Access Control (MAC) Bridges • IEEE 802.1p Traffic Class Expediting and Dynamic Multicast Filtering • IEEE 802.1Q Virtual Bridged Local Area Networks • IEEE 802.1ad Provider Bridges • IEEE 802.2 Logical Link Control • IEEE Std 802.3 CSMA/CD • IEEE Std 802.3ab 1000BASE-T specification • IEEE Std 802.3ad Aggregation of Multiple Link Segments • IEEE Std 802.3ae 10GE WEN/LAN Standard • IEEE Std 802.3x Full Duplex and flow control • IEEE Std 802.3z Gigabit Ethernet Standard • IEEE802.1ax/IEEE802.3ad Link Aggregation • IEEE 802.3ah Ethernet in the First Mile. • IEEE 802.1ag Connectivity Fault Management • IEEE 802.1ab Link Layer Discovery Protocol • IEEE 802.1D Spanning Tree Protocol • IEEE 802.1w Rapid Spanning Tree Protocol • IEEE 802.1s Multiple Spanning Tree Protocol • IEEE 802.1x Port based network access control protocol • IEEE 802.3af DTE Power via MIDI • IEEE 802.3at DTE Power via the MDI Enhancements • IEEE 802.3az Energy Efficient Ethernet
ITU	• ITU SG13 Y.17ethoam • ITU SG13 QoS control Ethernet-Based IP Access • ITU-T Y.1731 ETH OAM performance monitor

Standard Organization	Standard or Protocol
ISO	• ISO 10589 IS-IS Routing Protocol
MEF	• MEF 2 Requirements and Framework for Ethernet Service Protection • MEF 9 Abstract Test Suite for Ethernet Services at the UNI • MEF 10.2 Ethernet Services Attributes Phase 2 • MEF 11 UNI Requirements and Framework • MEF 13 UNI Type 1 Implementation Agreement • MEF 15 Requirements for Management of Metro Ethernet Phase 1 Network Elements • MEF 17 Service OAM Framework and Requirements • MEF 20 UNI Type 2 Implementation Agreement • MEF 23 Class of Service Phase 1 Implementation Agreement • Xmodem XMODEM/YMODEM Protocol Reference

NOTE

The listed standards and protocols are fully or partially supported by Huawei switches. For details, visit http://e.huawei.com or contact your local Huawei sales office.

Ordering Information

The following table lists ordering information of the S5730-SI series switches.

Ordering information of the S5730-SI series

Item	Product Description
1	S5730-48C-SI Bundle (24 Ethernet 10/100/1000 ports, 8 10 Gig SFP+, with 1 interface slot, with 150W AC power supply)
2	S5730-48C-PWR-SI Bundle (24 Ethernet 10/100/1000 ports, 8 10 Gig SFP+, PoE+, with 1 interface slot, with 500W AC power supply)
3	S5730-68C-SI Bundle (48 Ethernet 10/100/1000 ports, 4 10 Gig SFP+, with 1 interface slot, with 150W AC power supply)
4	S5730-68C-PWR-SI Bundle (48 Ethernet 10/100/1000 ports, 4 10 Gig SFP+, PoE+, with 1 interface slot, with 500W AC power supply)
5	S5730-68C-PWR-SI (48 Ethernet 10/100/1000 ports, 4 10 Gig SFP+, PoE+, with 1 interface slot, without power module)
6	4-port 40GE QSFP+ interface card
7	150W AC Power Module (Black)
8	150W DC Power Module (Black)
9	500W AC PoE Power Module (Black, Power panel side exhaust)
10	650W DC PoE Power Module (Black, Power panel side exhaust)
11	1150W AC PoE Power Module
12	1000W AC PoE Power Module

More Information

For more information about Huawei Campus Switches, visit http://e.huawei.com or contact us in the following ways:

- Global service hotline: http://e.huawei.com/en/service-hotline
- Logging in to the Huawei Enterprise technical support website: http://support.huawei.com/enterprise/
- Sending an email to the customer service mailbox: support_e@huawei.com

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