S7700 Series Smart Routing Switches

The S7700 series switches are smart routing switches designed for next-generation enterprise networks. The S7700 series switches can offer voice, video, and data services, helping enterprises build routing and switching integrated end-to-end networks.

Introduction

The S7700 series design is based on Huawei's intelligent multi-layer switching technology to provide intelligent service optimization methods, such as MPLS VPN, traffic analysis, comprehensive HQoS policies, controllable multicast, load balancing, and security, in addition to high-performance Layer 2 to Layer 4 switching services. The S7700 also features super scalability and reliability.

The S7700 series is available in three models: S7703, S7706, and S7712. The switching capacity and port density of all four models is expandable. The S7700 is developed based on a new hardware platform and adopts a left-to-rear ventilation channel to achieve better energy efficiency. Key components work in redundancy mode to minimize risks of system breakdown and service interruption. Using innovative energy-saving chips, the S7700 provides an industry-leading solution for a sustainable energy-saving network, and can function either as an aggregation or core node on a campus network or in a data center to provide integrated wireless access.

Product Overview

Models and Appearance

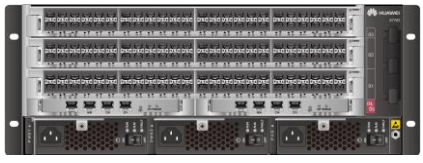
The S7700 series is available in three models: S7703/S7703-PoE, S7706/S7706-PoE, and S7712. The switching capacity and port density of all three models are expandable. The S7700 is based on a new hardware platform, which adopts a left-to-rear ventilation channel to achieve better energy efficiency. Key components work in redundancy mode to minimize risks of system breakdown and service interruption. Using innovative energy-saving chips, the S7700 provides an industry-leading solution for a sustainable energy-saving network.

NOTE

The power supply slots on the S7703, S7706, and S7712 consist of the system power supply slot and PoE power supply slot, which are independent of each other. By installing the appropriate power modules into the PoE power supply slots, the S7703, S7706, and S7712 can provide PoE capabilities.

The S7703-PoE/S7706-PoE differ from the S7703/S7706, because all power supply slots on the S7703-PoE/S7706-PoE are shared by the system power supply and PoE power supply.

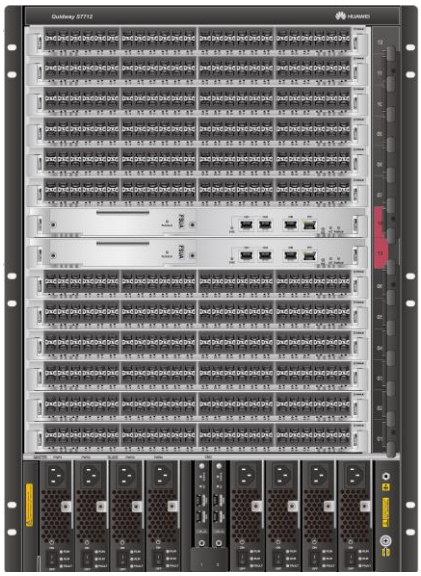
Models and appearances of the S7700 series

Appearance	Description
	• Number of Main Control Unit (MCU) slots: 2 • Number of Line Processing Unit (LPU) slots: 3 • Number of Centralized Monitoring Unit (CMU) slots: The CMU card's function is integrated into S7703's MCU.

Appearance	Description

S7703/S7703-PoE	• Number of fan slots: 1
	• Number of power module slots:
	  − S7703: 2 for system and 1 for PoE
	  − S7703-PoE: 3, shared by both the system and PoE power supplies
	• Port density per chassis: 144 x FE, 144 x GE, 144 x 10GE, 24 x 40GE, 12 x 100GE
	• Installation: The switch can be installed in an N66E or N68E cabinet, one cabinet for one chassis.
	• Forwarding performance: 1440 Mpps/3600 Mpps
	• Switching capacity: 1.92 Tbps/4.8 Tbps

S7706/S7706-PoE
	• Number of SRU slots: 2
	• Number of LPU slots: 6
	• Number of CMU slots: 2
	• Number of fan slots: 2
	• Number of power module slots:
	  − S7706: 4 for system and 4 for PoE
	  − S7706-PoE: 8, shared by both the system and PoE power supplies
	• Port density per chassis: 288 x FE, 288 x GE, 288 x 10GE, 48 x 40GE, 24 x 100GE
	• Installation: The switch can be installed in an N66E or N68E cabinet, one cabinet for one chassis.
	• Forwarding performance: 3240 Mpps
	• Switching capacity: 4.32 Tbps

 S7712	• Number of SRU slots: 2 • Number of LPU slots: 12 • Number of CMU slots: 2 • Number of fan slots: 4 • Number of power module slots: 4 for system and 4 for PoE • Port density per chassis: 576 x FE, 576 x GE, 576 x 10GE, 96 x 40GE, 48 x 100GE • Installation: The switch can be installed in an N66E or N68E cabinet, one cabinet for one chassis. • Forwarding performance: 3480 Mpps • Switching capacity: 4.64 Tbps

Cards

S7700 series switches come with a variety of cards, including SRUs/MCUs, related subcards, LPUs, and CMUs.

The following describe the different types of LPUs:

- The S series includes SA and SC interface cards, for example, 24-port 100M/1000M BASE-X interface card (**SA**, SFP)-32K MAC.
- The E series includes EA, EC, ED, and EE interface cards, for example, 48-port 100M BASE-X interface card (**EA**, SFP)-32K MAC.

- The X series includes X5, X6 interface cards, for example, 48-port 10/100/1000BASE-T interface card (**X5E**, RJ45).

The following table lists the cards supported by the S7700.

Cards supported by the S7700

Card Type	Card Name	Card Description	Card Series
Main control unit	ES0D00SRUA00	S7706/S7712 Main Control Unit A	-
	ES1D2SRUE000	S7706/S7712 Main Control Unit E	-
	ES1D2SRUH000	S7706/S7712 Main Control Unit H	-
	LSS7SRUH1000	S7706/S7712,Main Control Unit H	
	LSS7SRUE1000	S7706/S7712,Main Control Unit E	
	LSS7SRUHA100	S7706/S7712 Main Control Unit H(A1)	-
	LSS7SRUHX100	S7706/S7712 Main Control Unit H(X1)	-
	ES0D00MCUA00	S7703 Main Control Unit A	
	ES1D2MCUD000	S7703 Main Control Unit D	-
Subcard on the main control unit	ES02VSTSA	Cluster Switching System Service Unit	-
	ES1D2VS04000	4-Port 10G Cluster Switching System Service Unit (SFP+)	-
Centralized monitoring unit	EH1D200CMU00	Centralized Monitoring Unit	-
1000M interface card(Electrical)	ES0D0G48TC01	48-Port 10/100/1000BASE-T Interface Card (EC, RJ45)	EC
	ES1M2G48TX5S	48-port 10/100/1000BASE-T interface card (X5S,M,RJ45)	X5S
	ES1M2G48TX5E	48-port 10/100/1000BASE-T interface card (X5E,M,RJ45)	X5E
	LSS7G48VX5E0	48-port 100/1000BASE-T PoE interface card (X5E, RJ45, PoE++)	X5E
1000M interface card(Optical)	ES0D0G48SC01	48-Port 100/1000BASE-X Interface Card (EC, SFP)	EC
	LSS7G48SX6S0	48-port GE SFP interface card (X6S,SFP)	X6S
	LSS7G48SX6E0	48-port GE SFP interface card (X6E,SFP)	X6E
GE/10GE interface card	LSS7X24BX6S0	24-port 10GE SFP+ interface and 24-port GE SFP interface card (X6S,SFP+)	X6S
	LSS7X24BX6E0	24-port 10GE SFP+ interface and 24-port GE SFP interface card (X6E,SFP+)	X6E
10GE interface card	ES1D2X08SX5H	8-Port 10GBASE-X Interface Card (X5H, SFP+)	X5H
	ES0D0X12SA01	12-Port 10GBASE-X Interface Card (SA, SFP+)	SA
	ES1D2X32SSC0	32-Port 10GBASE-X Interface Card (SC, SFP+)	SC
	ES1D2X16SSC2	16-Port 10GBASE-X Interface Card (SC, SFP+)	SC
	LSS7X48SX6S0	48-port 10GE SFP+ interface card (X6S,SFP+)	X6S
	LSS7X48SX6E0	48-port 10GE SFP+ interface card (X6E,SFP+)	X6E
40GE/100GE interface card	LSS7C02BX6E0	2-port 100GE QSFP28 interface and 4-port 40GE QSFP28 interface card (X6E,QSFP28)	X6E

Card Type	Card Name	Card Description	Card Series
100GE interface card	LSS7C06HX6S0	6-port 100GE QSFP28 interface card (X6S,QSFP28)	X6S
	LSS7C06HX6E0	6-port 100GE QSFP28 interface card (X6E,QSFP28)	X6E

NOTE

To learn detailed specifications of S7700 switch cards, see the S7700 Series Switches Cards Datasheet.

Fan Module

The following table lists the fan module applicable to the S7700.

Technical specifications of the fan module applicable to the S7700 series

Fan Module	Technical Specifications	Applied Switch Model

ES0E2FBX
	• Dimensions (W x D x H): 323.9 mm x 74.8 mm x 126.6 mm (12.8 in. x 2.9 in. x 5.0 in.)
	• Number of fans: 2
	• Weight: 1140±20 g
	• Maximum power consumption: 43 W
	• Maximum wind pressure: 331 Pa
	• Maximum wind rate: 163 cubic feet per minute (CFM)
	• Maximum noise: 62 dBA
	• Operating voltage range: -38.4 V DC to -72 V DC
	• Maximum wind rate: 28 cubic feet per minute (CFM)
	• Environment specifications:
	  − Operating temperature: 0°C to 45°C (32°F to 113°F)
	  − Operating relative humidity: 5% RH to 95% RH (noncondensing)
	  − Storage temperature: -40°C to +70°C (-40°F to +158°F)
	  − Storage relative humidity: 5% RH to 95% RH (noncondensing)
		• S7703/S7703-PoE
		• S7706/S7706-PoE
		• S7712

The following table lists the functions of the fan module applicable to the S7700.

Functions of fan modules

Function	Description
Hot swapping	Supported Other fan modules are not affected when you install or remove a fan module.
Intelligent fan speed adjustment	The S7700 series switches provide intelligent fan speed adjustment based on temperature in each zone. The system monitors the temperature of key components, and adjusts the fan speed based on temperature changes. This intelligent fan speed adjustment function ensures that the system stays within the proper operating temperature range, and reduces power consumption and noise.

Technical specifications of the fan module applicable to the S7700 series

Fan Module	Technical Specifications	Applied Switch Model

ES1M00FBX001
	• Dimensions (W x D x H): 323.9 mm x 74.8 mm x 126.6 mm (12.8 in. x 2.9 in. x 5.0 in.)
	• Number of fans: 2
	• Weight: 1140±20 g
	• Maximum power consumption: 43 W
	• Maximum wind pressure: 331 Pa
	• Maximum wind rate: 163 cubic feet per minute (CFM)
	• Maximum noise: 62 dBA
	• Operating voltage range: -38.4 V DC to -72 V DC
	• Maximum wind rate: 28 cubic feet per minute (CFM)
	• Environment specifications:
	  − Operating temperature: 0°C to 45°C (32°F to 113°F)
	  − Operating relative humidity: 5% RH to 95% RH (noncondensing)
	  − Storage temperature: -40°C to +70°C (-40°F to +158°F)
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Technical specifications of the fan module applicable to the S7700 series

Fan Module	Technical Specifications	Applied Switch Model
 EH1M00FBX000	• Dimensions (W x D x H): 323.9 mm x 74.8 mm x 126.6 mm (12.8 in. x 2.9 in. x 5.0 in.) • Number of fans: 2 • Weight: 1540±20 g • Maximum power consumption: 116 W • Maximum wind pressure: 692 Pa • Maximum wind rate: 245 cubic feet per minute (CFM) • Maximum noise: 70 dBA • Operating voltage range: -30 V DC to -73 V DC	• S7703-PoE • S7706-PoE

Fan Module	Technical Specifications	Applied Switch Model

	• Maximum wind rate: 28 cubic feet per minute (CFM)
	• Environment specifications:
	  – Operating temperature: 0°C to 45°C (32°F to 113°F)
	  – Operating relative humidity: 5% RH to 95% RH (noncondensing)
	  – Storage temperature: -40°C to +70°C (-40°F to +158°F)
	  – Storage relative humidity: 5% RH to 95% RH (noncondensing)	

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Power Supply

The S7706 and S7712 provide slots PWR1 to PWR4 for system power modules, and slots PWR5 to PWR8 for PoE power modules. The S7703 provides slots PWR1 to PWR2 for power modules, and slots PWR3 for PoE power module.

NOTE

AC and DC power modules cannot be used in the same chassis.

The S7700 series switches support two redundancy modes of power modules: 2:2, 1:1. Ensure that the total maximum output power is larger than the maximum power actually required by the system. For example, the maximum power required by the system is 4000 W. If two 2200 W power modules are installed in the chassis, they work in no redundancy mode. If four 2200 W power modules are installed, they work in 2:2 redundancy model.

The following table lists the power supplies applicable to the S7700.

Technical specifications of the power supplies applicable to the S7700 series

Power Module	Technical Specifications	Applied Switch Model

ES02PSD16
	• Dimensions (W x D x H): 41 mm x 393 mm x 130 mm (1.6 in. x 15.5 in. x 5.1 in.)
	• Weight: <2.5 kg
	• Input:
	  – Rated input voltage range: -48 V DC/-60 V DC
	  – Maximum input voltage range: -38.4 V DC to -72 V DC
	  – Maximum input current: 40 A
	• Output:
	  – Rated output voltage range: -48 V DC/-60 V DC
	  – Maximum output voltage range: -38.4 V DC to -72 V DC
	  – Maximum output current: 40 A
		• S7703
		• S7706
		• S7712

Power Module	Technical Specifications	Applied Switch Model
	– Maximum output power: 1600 W • Hot swap: Supported • Environment specifications: – Operating temperature: 0°C to 45°C (32°F to 113°F) – Operating relative humidity: 5% RH to 95% RH (noncondensing) – Storage temperature: -40°C to +70°C (-40°F to +158°F) – Storage relative humidity: 5% RH to 95% RH (noncondensing)	
 W2PSD2200	• Dimensions (W x D x H): 41 mm x 393 mm x 130 mm (1.6 in. x 15.5 in. x 5.1 in.) • Weight: <2.5 kg • Input: – Rated input voltage range: -48 V DC/-60 V DC – Maximum input voltage range: -40 V DC to -72 V DC – Maximum input current: 60 A • Output: – Rated output voltage range: -53.5 V DC – Maximum output voltage range: -42 V DC to -58 V DC – Maximum output current: 42 A – Maximum output power: 2200 W • Hot swap: Supported • Environment specifications: – Operating temperature: 0°C to 45°C (32°F to 113°F) – Operating relative humidity: 5% RH to 95% RH (noncondensing) – Storage temperature: -40°C to +70°C (-40°F to +158°F) – Storage relative humidity: 5% RH to 95% RH (noncondensing)	• S7703/S7703-PoE • S7706/S7706-PoE • S7712
 W2PSA0800	• Dimensions (W x D x H): 41 mm x 393 mm x 130 mm (1.6 in. x 15.5 in. x 5.1 in.) • Weight: <2.5 kg • Input: – Rated input voltage: 220 V AC/110 V AC; 50/60 Hz – Rated input voltage range: 200 V AC to 240 V AC (220 V AC input)/100 V AC to 120 V AC (110 V AC input); 47 Hz to 63 Hz – Maximum input voltage range: 90 V AC to 290 V AC; 47 Hz to 63 Hz (When the input voltage is in the range of 90 V AC to 175 V AC, the power module provides up to half of the maximum output power.) – Maximum input current: 5 A • Output: – Maximum output current: 15 A (220 V AC input)/7.5 A (110 V AC input) – Maximum output power: 800 W (220 V AC input)/400 W (110 V AC input)	• S7703/S7703-PoE • S7706/S7706-PoE • S7712

Power Module	Technical Specifications	Applied Switch Model

	• Hot swap: Supported
	• Environment specifications:
	  – Operating temperature: 0°C to 45°C (32°F to 113°F)
	  – Operating relative humidity: 5% RH to 95% RH (noncondensing)
	  – Storage temperature: -40°C to +70°C (-40°F to +158°F)
	  – Storage relative humidity: 5% RH to 95% RH (noncondensing)	

PAC-2200WF
	• Dimensions (W x D x H): 41 mm x 393 mm x 130 mm (1.6 in. x 15.5 in. x 5.1 in.)
	• Weight: <2.5 kg
	• Input:
	  – Rated input voltage: 220 V AC/110 V AC; 50/60 Hz
	  – Rated input voltage range: 200 V AC to 240 V AC (220 V AC input)/100 V AC to 120 V AC (110 V AC input); 47 Hz to 63 Hz
	  – Maximum input voltage range: 90 V AC to 290 V AC; 47 Hz to 63 Hz (The maximum output power reduces by a half when the input voltage is in the range of 90 V AC to 175 V AC.)
	  – Maximum input current: 15.5 A
	• Output:
	  – Maximum output current: 42 A (220 V AC input)/21 A (110 V AC Input)
	  – Maximum output power: 2200 W (220 V AC input)/1100 W (110 V AC input)
	• Hot swap: Supported
	• Environment specifications:
	  – Operating temperature: 0°C to 45°C (32°F to 113°F)
	  – Operating relative humidity: 5% RH to 95% RH (noncondensing)
	  – Storage temperature: -40°C to +70°C (-40°F to +158°F)
	  – Storage relative humidity: 5% RH to 95% RH (noncondensing)
		• S7703/S7703-PoE
		• S7706/S7706-PoE
		• S7712

PAC3KS54-CB
PAC3KS54-CE
PAC3KS54-NE
	• Dimensions (W x D x H): 41 mm x 417.4 mm x 130 mm (0.2 in. x 16.4 in. x 5.1 in.)
	• Weight: <3.0 kg
	• AC input:
	  – Rated input voltage: 220 V AC/110 V AC; 50/60 Hz
	  – Rated input voltage range: 200 V AC to 240 V AC (220 V AC input)/100 V AC to 130 V AC (110 V AC input); 47 Hz to 63 Hz
	  – Maximum input voltage range: 90 V AC to 290 V AC; 47 Hz to 63 Hz (The maximum output power reduces by a half when the input voltage is in the range of 90 V AC to 175 V AC.)
	  – Maximum input current: 16 A
	• High-voltage DC input:
		• S7703/S7703-PoE
		• S7706/S7706-PoE
		• S7712

Power Module	Technical Specifications	Applied Switch Model
	– Rated input voltage: 240 V DC – Rated output voltage range: -38.4 V DC to -72 V DC – Maximum output current: 40 A – Maximum output power: 1600 W • Hot swap: Supported • Environment specifications: – Operating temperature: 0°C to 45°C (32°F to 113°F) – Operating relative humidity: 5% RH to 95% RH (noncondensing) – Storage temperature: -40°C to +70°C (-40°F to +158°F) – Storage relative humidity: 5% RH to 95% RH (noncondensing)	

Product Features and Highlights

Agile Switch, Enabling Networks to Be More Agile for Services

- The S7700's flexible packet processing and traffic control capabilities can meet current and future service requirements, helping build a highly scalable network.
- The built-in native AC on S7700 series switches allows enterprises to build a wireless network without additional AC hardware. S7700 switch can manage up to 4K APs. It is a core switch that provides up to Tbit/s AC capabilities, avoiding the performance bottleneck on independent AC devices. The native AC capabilities help organizations better cope with challenges in the high-speed wireless era.
- The S7700 series' unified user management function authenticates both wired and wireless users, ensuring a consistent user experience no matter whether they are connected to the network through wired or wireless access devices. The unified user management function supports various authentication methods, including PPPoE, 802.1x, MAC address, and Portal authentication, and is capable of managing users based on user groups, domains, and time ranges. These functions implement user and service management and enable the transformation from device-centric management to user-centric management.
- Huawei's Super Virtual Fabric 2.0 (SVF 2.0) technology can not only virtualize fixed-configuration switches into S7700 switch line cards but also virtualize APs as switch ports. With this virtualization technology, a physical network with core/aggregation switches, access switches, and APs can be virtualized into a "super switch", greatly simplifying network management.
- Huawei's Packet Conservation Algorithm for Internet (iPCA) technology changes the traditional method that uses simulated traffic for fault location. iPCA technology monitors network quality for any service flow at any network node, at any time, and without extra costs. It can detect temporary service interruptions within one second and can identify faulty ports accurately. This cutting-edge fault detection technology turns "extensive management" into "fine granular management."
- Huawei's IEEE 1588v2 and Synchronous Ethernet (SyncE) solutions enable high-precision time synchronization between network devices. Compared with the Global Positioning System (GPS) time synchronization solution, Huawei's solutions enhance security while reducing costs.
- The Service Chain feature virtualizes the value-added service processing capabilities, such as firewall, so that campus networks can utilize these capabilities in an undifferentiated manner. That is, these capabilities can be used without location constraint.

Note: The S7700 series switches can manage 16 APs by default . You can purchase licenses for more AP management on demand.

Powerful Service Processing Capabilities

- The S7700 provides high-density 10GE ports and 100GE ports. Each S7712 chassis can provide a maximum of 576 x 10GE ports, 96 x 40GE ports or 48 x 100GE ports, meeting the requirements of bandwidth-consuming applications, such as multimedia conferencing and data access.

- The S7700's multi-service routing and switching platform meets requirements for service bearing at the access layer, aggregation layer, and core layer of enterprise networks. The S7700 provides wireless access along with voice, video, and data services, helping enterprises build integrated full-service networks with high availability and low latency.
- The S7700 supports distributed Layer 2/Layer 3 MPLS VPN functions, including MPLS, VPLS, HVPLS, and VLL, implementing VPN access for enterprise users.
- The S7700 supports various Layer 2 and Layer 3 multicast protocols such as PIM SM, PIM DM, PIM SSM, MLD, and IGMP snooping. It can provide enterprises with multi-terminal high definition video surveillance and video conferencing services.

Carrier-class Reliability and Visual Fault Diagnosis

- Huawei's high reliability design ensures that the S7700 is 99.999% reliable. The S7700 provides redundant backup for key components, including main control units (MCUs), power supply units, and fans trays, all of which are hot swappable.
- The S7700 innovatively implements the Cluster Switch System (CSS) function through switch fabrics, and packets are only switched once when they are forwarded between chassis. This addresses the problem of low switching efficiency caused by multiple switching processes during inter-chassis forwarding in clusters established using line cards. In addition, inter-chassis link aggregation can be used to improve link use efficiency and prevent single-point failures.
- The S7700 can use service ports as cluster ports, enabling flexible port utilization.
- The S7700 supports High-speed Self Recovery (HSR) technology. Using Huawei's X series cards, the S7700 is the industry's only switch that implements end-to-end IP MPLS bearer network protection switchover within 50 ms, improving network reliability.
- The S7700 has a dedicated fault detection subcard that provides hardware-based BFD and hardware-based OAM including IEEE 802.3ah, 802.1ag, and ITU-Y.1731. Hardware-based OAM implements 3.3 ms fault detection and can check session connectivity of all terminals in real time when a network fault occurs. The S7700 can also work with a network management system (NMS). The NMS provides a graphical fault diagnosis interface and traverses all network elements and links automatically to help users detect and locate faults quickly.

Enhanced QoS Mechanism, Improving the Voice and Video Experience

- The S7700's HQoS control mechanisms classify traffic based on information from the link layer to the application layer. With advanced queue scheduling and congestion control algorithms, the S7700 performs accurate multi-level scheduling for data flows, satisfying enterprises' QoS requirements for a variety of services and user terminals.
- The S7700 supports hardware-based low delay queues for multicast packets so that the video service can be processed with high priority and low delay. This feature guarantees the high quality of key services in an enterprise, such as video conference and surveillance.
- The S7700 uses innovative priority scheduling algorithms to optimize the QoS queue scheduling mechanism for voice and video services. Each port supports eight priority queues. The improved scheduling mechanism shortens the delay of the VoIP service and eliminates the pixelation effect in the video service, improving user experience.

High-performance IPv6 Service Processing, Resulting in A Smooth Transition from IPv4 to IPv6

- Both the hardware platform and software platform of the S7700 support IPv6. The S7700 has earned the IPv6 Ready Phase 2 (Gold) designation.
- The S7700 supports IPv4/IPv6 dual stack, various tunneling technologies, IPv6 static routing, RIPng, OSPFv3, BGP+, IS-ISv6, and IPv6 multicast. These features meet the demand for IPv6 networking and combined IPv4 and IPv6 networking.

Superb Traffic Analysis Capability, Resulting in Real-time Network Performance Monitoring

- The S7700 supports NetStream for the real-time collection and analysis of network traffic statistics.
- The S7700 supports the V5, V8, and V9 NetStream formats and provides aggregation traffic templates to reduce the burden on the network collector system. In addition, the S7700 supports real-time traffic collection, dynamic report generation, traffic attribute analysis, and traffic exception trap.
- NetStream monitors network traffic in real time and analyzes the device's throughput, providing data for network structure optimization and capacity expansion.

Comprehensive Security Mechanisms, Protecting Enterprises From Internal and External Security Threats

- The S7700 supports MAC security (MACSec) that enables hop-by-hop secure data transmission. The S7700 can be applied to scenarios that pose high requirements on data confidentiality, such as government and finance sectors.
- NGFW is a next-generation firewall card that can be installed on an S7700. In addition to the traditional defense functions such as firewall, identity authentication, and Anti-DDoS, the NGFW supports IPS, anti-spam, web security, and application control functions.
- The S7700 provides comprehensive NAC solutions for enterprise networks. It supports MAC address authentication, Portal authentication, 802.1x authentication, and DHCP snooping-triggered authentication. These authentication methods ensure the security of various access modes, such as dumb terminal access, mobile access, and centralized IP address allocation.

Innovative Energy-saving Chips, Allowing for Intelligent Power Consumption Control

- The S7700 uses innovative energy-saving chips, which can dynamically adjust power on all ports based on traffic volume. An idle port enters a sleep mode to reduce power consumption.
- The S7700 supports Power over Ethernet (PoE) and uses different energy management modes according to the powered device (PD) type, ensuring flexible energy management.
- The S7700 supports IEEE 802.3az Energy Efficient Ethernet and provides the low power idle mode for the PHY line card. If the link utilization is low, the S7700 switches to a lower speed or power PHY to reduce power consumption.

Cloud-based Management

- The Huawei cloud management platform allows users to configure, monitor, and inspect switches on the cloud, reducing on-site deployment and O&M manpower costs and decreasing network OPEX. Huawei switches support both cloud management and on-premise management modes. These two management modes can be flexibly switched as required to achieve smooth evolution while maximizing return on investment (ROI).

VXLAN

- VXLAN is used to construct a Unified Virtual Fabric (UVF). As such, multiple service networks or tenant networks can be deployed on the same physical network, and service and tenant networks are isolated from each other. This capability truly achieves 'one network for multiple purposes'. The resulting benefits include enabling data transmission of different services or customers, reducing the network construction costs, and improving network resource utilization. The S7700 series switches are VXLAN-capable and allow centralized and distributed VXLAN gateway deployment modes. These switches also support the BGP EVPN protocol for dynamically establishing VXLAN tunnels and can be configured using NETCONF/YANG.

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.

Big Data Security Collaboration

- The S7700 uses NetStream to collect campus network data and then report such data to the Huawei HiSec Insight. The purposes of doing so are to detect network security threats, display the security posture across the entire network, and enable automated or manual response to security threats. The HiSec Insight delivers the security policies to the iMaster NCE-Campus(or Agile Controller). The iMaster NCE-Campus(or Agile Controller) then delivers such policies to switches that will handle security events accordingly. All these ensure campus network security.

Intelligent Diagnosis

- Open Intelligent Diagnosis System (OIDS) integrates the device health monitoring and fault diagnosis functions – that are typically deployed on a Network Management System (NMS) – into the switch software to implement intelligent diagnosis on a single switch. After OIDS is deployed on a switch, the switch periodically collects and records the running information and automatically determines whether a fault occurs. If a fault occurs, the switch automatically locates the fault or helps locate the fault. All these merits increase fault locating efficiency of O&M staff while improving device maintainability.

Licensing

The S7700 supports both the traditional feature-based licensing mode and the latest Huawei IDN One Software (N1 mode for short) licensing mode. The N1 mode is ideal for deploying Huawei CloudCampus Solution in the on-premises scenario, as it greatly enhances the customer experiences in purchasing and upgrading software services with simplicity.

Software Package Features in N1 Mode

Switch Functions	N1 Basic Software	N1 Foundation Software Package	N1 Advanced Software Package
Basic network functions: Layer 2 functions, IPv4, IPv6, MPLS, SVF, and others	√	√	√
Basic network automation based on the Agile Controller: • Basic automation: Plug-and-play, SSID, and AP group management • Basic monitoring: Application visualization • NE management: Image and topology management and discovery • WLAN enhancement: Roaming and optimization for up to 128 APs	×	√	√
Advanced network automation and intelligent O&M: VXLAN, user access authentication, free mobility, and CampusInsight basic functions	×	×	√

Note: Only V200R019C00 and later versions can support N1 mode

Product Specifications

Functions and Features

The following table lists the functions and features available on the S7700.

NOTE

Unless otherwise specified, the S7703 mentioned below includes both S7703 and S7703-PoE models, and the S7706 includes both S7706 and S7706-PoE models.

Function and feature metrics for the S7700 series

Function and Feature		Description	S7703+MCUA	S7703+MCUD	S7706/S7712+SRUA/SRUB	S7706/S7712+SRUE/SRUH/SRUH(A1/X1)
System basics	OS basics	File upload and download	Yes	Yes	Yes	Yes

Function and Feature		Description	S7703+MCUA	S7703+MCUD	S7706/S7712+SRUA/SRUB	S7706/S7712+SRUE/SRUH/SRUH(A1/X1)
		File system	Yes	Yes	Yes	Yes
		Directory and file management	Yes	Yes	Yes	Yes
	SVF	SVF support	Yes	Yes	Yes	Yes
	Clustering	Service port-based clustering	No	No	Yes	Yes
		CSS card-based clustering	No	No	Yes	Yes
	Interface basics	Jumbo frames	Yes	Yes	Yes	Yes
		Port bridge	Yes	Yes	Yes	Yes
		Load balancing among links of a trunk	Yes	Yes	Yes	Yes
		Full-duplex, half-duplex, and auto-negotiation	Yes	Yes	Yes	Yes
		Flow control on an interface	Yes	Yes	Yes	Yes
		Rate auto-negotiation on an interface	Yes	Yes	Yes	Yes
		Link aggregation	Yes	Yes	Yes	Yes
	Configuration management	SSH v1.5	Yes	Yes	Yes	Yes
		SSH v2.0	Yes	Yes	Yes	Yes
		Console terminal services	Yes	Yes	Yes	Yes
		SNMPv1	Yes	Yes	Yes	Yes
		SNMPv2c	Yes	Yes	Yes	Yes
		SNMPv3	Yes	Yes	Yes	Yes
		NETCONF/YANG	Yes	Yes	Yes	Yes
		Data communication between terminal users	Yes	Yes	Yes	Yes
		Telnet/SSH terminal services	Yes	Yes	Yes	Yes
		Hierarchical user rights management and commands	Yes	Yes	Yes	Yes
		Alarm information output	Yes	Yes	Yes	Yes
		Command line interface (CLI)-based	Yes	Yes	Yes	Yes

Function and Feature		Description	S7703+MCUA	S7703+MCUD	S7706/S7712+SRUA/SRUB	S7706/S7712+SRUE/SRUH/SRUH(A1/X1)
		configuration				
		SNMP-based NMS for unified configuration	Yes	Yes	Yes	Yes
		Log information output	Yes	Yes	Yes	Yes
		Messages and help information in English	Yes	Yes	Yes	Yes
		Debugging information output	Yes	Yes	Yes	Yes
	Upgrade and rollback	Version upgrade	Yes	Yes	Yes	Yes
		Version rollback	Yes	Yes	Yes	Yes
	Hardware management	Hardware monitoring	Yes	Yes	Yes	Yes
		Energy saving	Yes	Yes	Yes	Yes
Ethernet basics	MAC management	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
	VLAN management	VLAN specification	4094	4094	4094	4094
		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
		MUX VLAN	Yes	Yes	Yes	Yes
		Super-VLAN	Yes	Yes	Yes	Yes
		Voice VLAN	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	Yes	Yes	Yes	Yes

Function and Feature		Description	S7703+MCUA	S7703+MCUD	S7706/S7712+SRUA/SRUB	S7706/S7712+SRUE/SRUH/SRUH(A1/X1)
		+ interface number				
		VLAN assignment based on protocols	Yes	Yes	Yes	Yes
		VLAN assignment based on interfaces	Yes	Yes	Yes	Yes
	GVRP	GARP	Yes	Yes	Yes	Yes
		GVRP	Yes	Yes	Yes	Yes
	Ring network protocol	BPDU protection	Yes	Yes	Yes	Yes
		DLDP	Yes	Yes	Yes	Yes
		ERPS semi-ring topology	Yes	Yes	Yes	Yes
		ERPS closed-ring topology	Yes	Yes	Yes	Yes
		G.8032 v1	Yes	Yes	Yes	Yes
		G.8032 v2	Yes	Yes	Yes	Yes
		MSTP	Yes	Yes	Yes	Yes
		Monitor Link	Yes	Yes	Yes	Yes
		RRPP	Yes	Yes	Yes	Yes
		Single RRPP ring	Yes	Yes	Yes	Yes
		Hybrid networking of RRPP rings and other rings	Yes	Yes	Yes	Yes
		Intersecting RRPP ring	Yes	Yes	Yes	Yes
		Tangent RRPP ring	Yes	Yes	Yes	Yes
		RSTP	Yes	Yes	Yes	Yes
		Smart Ethernet Protection (SEP)	Yes	Yes	Yes	Yes
		STP	Yes	Yes	Yes	Yes
		Smart Link	Yes	Yes	Yes	Yes
		Smart Link multi-instance load balancing	Yes	Yes	Yes	Yes
		Root protection	Yes	Yes	Yes	Yes
		Loop protection	Yes	Yes	Yes	Yes
		Loop detection on an interface	Yes	Yes	Yes	Yes
		Defense against TC	Yes	Yes	Yes	Yes

Function and Feature		Description	S7703+MCUA	S7703+MCUD	S7706/S7712+SRUA/SRUB	S7706/S7712+SRUE/SRUH/SRUH(A1/X1)
		BPDU attacks				
	LAN tunneling	VLAN mapping	Yes	Yes	Yes	Yes
		Transparent transmission of Layer 2 protocol packets	Yes	Yes	Yes	Yes
		Adding double VLAN tags to packets based on interfaces	Yes	Yes	Yes	Yes
		Selective QinQ	Yes	Yes	Yes	Yes
	LAN security	MAC address flapping detection	Yes	Yes	Yes	Yes
		Sticky MAC	Yes	Yes	Yes	Yes
		Broadcast traffic suppression in a VLAN	Yes	Yes	Yes	Yes
		Unknown unicast traffic suppression in a VLAN	Yes	Yes	Yes	Yes
		Multicast traffic suppression in a VLAN	Yes	Yes	Yes	Yes
		Storm control on broadcast, multicast, and unknown unicast traffic	Yes	Yes	Yes	Yes
		Limiting the number of MAC addresses that an interface can learn	Yes	Yes	Yes	Yes
		Interface security	Yes	Yes	Yes	Yes
		Broadcast traffic suppression on an interface	Yes	Yes	Yes	Yes
		Unknown unicast traffic suppression on an interface	Yes	Yes	Yes	Yes
		Multicast traffic suppression on an interface	Yes	Yes	Yes	Yes
		Interface isolation	Yes	Yes	Yes	Yes
		Configuring MAC address learning priorities for interfaces	Yes	Yes	Yes	Yes
	Ethernet OAM	802.1ag MAC ping (LB)	Yes	Yes	Yes	Yes

Function and Feature		Description	S7703+MCUA	S7703+MCUD	S7706/S7712+SRUA/SRUB	S7706/S7712+SRUE/SRUH/SRUH(A1/X1)
		802.1ag MAC trace (LT)	Yes	Yes	Yes	Yes
		Association between 802.1ag and 802.3ah	Yes	Yes	Yes	Yes
		Dying gasp	Yes	Yes	Yes	Yes
		Y.1731 unidirectional delay and jitter measurement (one-way ETH-DM)	Yes	Yes	Yes	Yes
		Y.1731 bidirectional delay and jitter measurement (two-way ETH-DM)	Yes	Yes	Yes	Yes
		802.3ah-based automated discovery	Yes	Yes	Yes	Yes
		Remote loopback	Yes	Yes	Yes	Yes
		Link fault disposal	Yes	Yes	Yes	Yes
		Link fault detection	Yes	Yes	Yes	Yes
Network synchronization	-	NTP	Yes	Yes	Yes	Yes
		Ethernet clock synchronization	Yes	Yes	Yes	Yes
		1588v2	Yes	Yes	Yes	Yes
Network management and monitoring	EasyOperation	EasyDeploy (client)	Yes	Yes	Yes	Yes
		EasyDeploy (commander)	Yes	Yes	Yes	Yes
	LLDP	LLDP	Yes	Yes	Yes	Yes
		LLDP-MED extended TLV	Yes	Yes	Yes	Yes
	RMON	RMON	Yes	Yes	Yes	Yes
		RMON2	Yes	Yes	Yes	Yes
	HTTP	HTTP1.1	Yes	Yes	Yes	No
		HTTPS	Yes	Yes	Yes	No
	Mirroring	ERSPAN	Yes	Yes	Yes	Yes
		Layer 2 remote port mirroring	Yes	Yes	Yes	Yes
		Port mirroring	Yes	Yes	Yes	Yes
	-	eMDI	Yes	Yes	Yes	Yes
	-	NQA	Yes	Yes	Yes	Yes
	-	NetStream	Yes	Yes	Yes	Yes

Function and Feature		Description	S7703+MCUA	S7703+MCUD	S7706/S7712+SRUA/SRUB	S7706/S7712+SRUE/SRUH/SRUH(A1/X1)
	-	sFlow	Yes	Yes	Yes	Yes
IP basic protocol	ICMP	ICMP ping	Yes	Yes	Yes	Yes
		ICMP6 ping	Yes	Yes	Yes	Yes
	-	Tracert	Yes	Yes	Yes	Yes
IP services	ARP	ARP entries	64K	64K	64K	256K
		ARP aging detection	Yes	Yes	Yes	Yes
		Intra-VLAN proxy ARP	Yes	Yes	Yes	Yes
		Inter-VLAN proxy ARP	Yes	Yes	Yes	Yes
		Dynamic ARP	Yes	Yes	Yes	Yes
		Multi-egress-interface ARP	Yes	Yes	Yes	Yes
		Routed proxy ARP	Yes	Yes	Yes	Yes
		Static ARP	Yes	Yes	Yes	Yes
	IPv4 protocol stack	VRF	Yes	Yes	Yes	Yes
	IPv6 protocol stack	IPv6 address management	Yes	Yes	Yes	Yes
		VRF	Yes	Yes	Yes	Yes
	ND	ND support	Yes	Yes	Yes	Yes
		ND entries	32K	32K	32K	128K
IP routing	-	Policy-based routing (PBR)	Yes	Yes	Yes	Yes
		Routing policy	Yes	Yes	Yes	Yes
	IPv4 routing	IPv4 routes	150K	150K	1024K	2048K
		BGP4	Yes	Yes	Yes	Yes
		IPv4 static route	Yes	Yes	Yes	Yes
		IS-IS	Yes	Yes	Yes	Yes
		MBGP	Yes	Yes	Yes	Yes
		OSPF	Yes	Yes	Yes	Yes
		RIPv1	Yes	Yes	Yes	Yes
		RIPv2	Yes	Yes	Yes	Yes
	IPv6 routing	IPv6 routes	150K	150K	256K	512K
		BGP4+	Yes	Yes	Yes	Yes
		IS-IS IPv6	Yes	Yes	Yes	Yes

Function and Feature		Description	S7703+MCUA	S7703+MCUD	S7706/S7712+SRUA/SRUB	S7706/S7712+SRUE/SRUH/SRUH(A1/X1)
		OSPFv3	Yes	Yes	Yes	Yes
		RIPng	Yes	Yes	Yes	Yes
	URPF	URPF check in strict mode	Yes	Yes	Yes	Yes
		URPF check in loose mode	Yes	Yes	Yes	Yes
Multicast	Layer 2 multicast	IGMP v1/v2/v3 snooping	Yes	Yes	Yes	Yes
		MLD snooping v1	Yes	Yes	Yes	Yes
		MLD snooping v2	Yes	Yes	Yes	Yes
		VLAN-based IGMP snooping proxy	Yes	Yes	Yes	Yes
		Replication of multicast data across VLANs	Yes	Yes	Yes	Yes
	Layer 3 multicast	BFD for PIM	Yes	Yes	Yes	Yes
		IGMPv1	Yes	Yes	Yes	Yes
		IGMPv2	Yes	Yes	Yes	Yes
		IGMPv3	Yes	Yes	Yes	Yes
		MLDv1	Yes	Yes	Yes	Yes
		MLDv2	Yes	Yes	Yes	Yes
		MSDP	Yes	Yes	Yes	Yes
		PIM SM V6	Yes	Yes	Yes	Yes
		PIM-DM	Yes	Yes	Yes	Yes
		PIM-DM v6	Yes	Yes	Yes	Yes
		PIM-SM	Yes	Yes	Yes	Yes
		RPF	Yes	Yes	Yes	Yes
		IPv4 multicast routes	4K	4K	32K	128K
		IPv6 multicast routes	4K	4K	32K	128K
		Multicast route policy	Yes	Yes	Yes	Yes
IP security	ARP security	VLAN-based ARP Miss packet suppression	Yes	Yes	Yes	Yes
		VLAN-based ARP packet suppression	Yes	Yes	Yes	Yes
		Global ARP packet suppression	Yes	Yes	Yes	Yes

Function and Feature		Description	S7703+MCUA	S7703+MCUD	S7706/S7712+SRUA/SRUB	S7706/S7712+SRUE/SRUH/SRUH(A1/X1)
		Source IP address-based ARP Miss packet suppression	Yes	Yes	Yes	Yes
		Source IP address-based ARP packet suppression	Yes	Yes	Yes	Yes
		Source MAC address-based ARP packet suppression	Yes	Yes	Yes	Yes
		Interface-based ARP Miss packet suppression	Yes	Yes	Yes	Yes
		Interface-based ARP packet suppression	Yes	Yes	Yes	Yes
		Association between ARP and STP	Yes	Yes	Yes	Yes
		ARP gateway attack inspection	Yes	Yes	Yes	Yes
		Defense against ARP address spoofing attacks: fixed-mac, fixed-all, and send-ack	Yes	Yes	Yes	Yes
		Sending gratuitous ARP packets	Yes	Yes	Yes	Yes
		Egress ARP Inspection (EAI)	Yes	Yes	Yes	Yes
		MFF	Yes	Yes	Yes	Yes
		ARP inspection against the dynamic binding tables	Yes	Yes	Yes	Yes
		ARP inspection against the static binding tables	Yes	Yes	Yes	Yes
	ICMP attack defense	Global ICMP packet suppression	Yes	Yes	Yes	Yes
		Interface-based ICMP packet suppression	Yes	Yes	Yes	Yes
	IPSG	IPv4 IPSG	Yes	Yes	Yes	Yes
		IPSG users	32000	32000	32000	32000
		IPv6 IPSG	Yes	Yes	Yes	Yes
		IPSGv6 users	32000	32000	32000	32000
		IPSG traffic check on a port	Yes	Yes	Yes	Yes

Function and Feature		Description	S7703+MCUA	S7703+MCUD	S7706/S7712+SRUA/SRUB	S7706/S7712+SRUE/SRUH/SRUH(A1/X1)
		IPSG traffic check in a VLAN	Yes	Yes	Yes	Yes
	Attack defense	Defense against ICMP flood attacks	Yes	Yes	Yes	Yes
		Local URPF	Yes	Yes	Yes	Yes
		Defense against TCP SYN flood attacks	Yes	Yes	Yes	Yes
		Defense against UDP flood attacks	Yes	Yes	Yes	Yes
		Defense against packet fragment attacks	Yes	Yes	Yes	Yes
		Defense against malformed packet attacks	Yes	Yes	Yes	Yes
Network reliability	BFD	BFD for BGP	Yes	Yes	Yes	Yes
		BFD for IS-IS	Yes	Yes	Yes	Yes
		BFD for OSPF	Yes	Yes	Yes	Yes
		BFD for PIM	Yes	Yes	Yes	Yes
		BFD for VRRP	Yes	Yes	Yes	Yes
		BFD for static routes	Yes	Yes	Yes	Yes
		Single-hop BFD	Yes	Yes	Yes	Yes
	VRRP	VRRP6 standard protocol	Yes	Yes	Yes	Yes
		VRRP standard protocol	Yes	Yes	Yes	Yes
MPLS&VPN	L2VPN	PWE3	Yes	Yes	Yes	Yes
		VLL	Yes	Yes	Yes	Yes
		VPLS	Yes	Yes	Yes	Yes
	L3VPN	MCE (VRF Lite)	Yes	Yes	Yes	Yes
		MPLS IPv4 VPN	Yes	Yes	Yes	Yes
		MPLS IPv6 VPN (6VPE)	Yes	Yes	Yes	Yes
	MPLS QoS	Mapping from 802.1p priorities to EXP priorities in MPLS packets	Yes	Yes	Yes	Yes
		Mapping from DSCP priorities to EXP priorities in MPLS	Yes	Yes	Yes	Yes

Function and Feature		Description	S7703+MCUA	S7703+MCUD	S7706/S7712+SRUA/SRUB	S7706/S7712+SRUE/SRUH/SRUH(A1/X1)
		packets				
	MPLS services	MPLS-TE protection group	Yes	Yes	Yes	Yes
		MPLS-TE tunnel establishment	Yes	Yes	Yes	Yes
		MPLS-TE tunnels	512	512	512	512
	MPLS	LDP	Yes	Yes	Yes	Yes
		Double MPLS labels	Yes	Yes	Yes	Yes
IP tunneling	-	GRE tunneling	Yes	Yes	Yes	Yes
		GRE tunnels	512	512	512	512
		IPv6 manual tunneling	Yes	Yes	Yes	Yes
User access	AAA	HWTACACS authentication	Yes	Yes	Yes	Yes
		RADIUS authentication	Yes	Yes	Yes	Yes
		HWTACACS authorization	Yes	Yes	Yes	Yes
		HWTACACS accounting	Yes	Yes	Yes	Yes
		RADIUS accounting	Yes	Yes	Yes	Yes
		RADIUS authorization after successful authentication	Yes	Yes	Yes	Yes
		Local authorization	Yes	Yes	Yes	Yes
		Local authentication	Yes	Yes	Yes	Yes
	DHCP	Sub-interface functioning as a DHCP client	Yes	Yes	Yes	Yes
		Option82 function	Yes	Yes	Yes	Yes
		Relay agent function of a VLANIF interface in a super VLAN	Yes	Yes	Yes	Yes
		DHCP client function of a VLANIF interface	Yes	Yes	Yes	Yes
		DHCP client function of the main interface for routing	Yes	Yes	Yes	Yes
		Relay agent function of a VLANIF interface	Yes	Yes	Yes	Yes
		VPLS DHCP snooping	Yes	Yes	Yes	Yes

Function and Feature		Description	S7703+MCUA	S7703+MCUD	S7706/S7712+SRUA/SRUB	S7706/S7712+SRUE/SRUH/SRUH(A1/X1)
		Dynamically assigning IP addresses to users	Yes	Yes	Yes	Yes
		Relay agent function of the main interface for Ethernet routing	Yes	Yes	Yes	Yes
		Dynamic DHCP packet rate-limiting	Yes	Yes	Yes	Yes
		VLANIF interface address pool-based DHCP server function	Yes	Yes	Yes	Yes
		VLAN-based DHCP snooping	Yes	Yes	Yes	Yes
		Global address pool-based DHCP server function	Yes	Yes	Yes	Yes
		Global DHCP snooping	Yes	Yes	Yes	Yes
		Interface-based DHCP snooping	Yes	Yes	Yes	Yes
		Relay agent function of a sub-interface	Yes	Yes	Yes	Yes
	DHCPv6	DHCPv6 relay	Yes	Yes	Yes	Yes
		VLAN-based DHCPv6 snooping	Yes	Yes	Yes	Yes
		Global DHCPv6 snooping	Yes	Yes	Yes	Yes
		Interface-based DHCPv6 snooping	Yes	Yes	Yes	Yes
		Stateless DHCPv6	Yes	Yes	Yes	Yes
		Stateful DHCPv6	Yes	Yes	Yes	Yes
	NAC	Portal 2.01 authentication	Yes	Yes	Yes	Yes
		Guest VLAN	Yes	Yes	Yes	Yes
		IEEE 802.1X	Yes	Yes	Yes	Yes
		Layer 3 Portal authentication of IPv4 users	Yes	Yes	Yes	Yes
		Layer 2 Portal authentication of IPv4 users	Yes	Yes	Yes	Yes
		MAC address authentication on a	Yes	Yes	Yes	Yes

Function and Feature		Description	S7703+MCUA	S7703+MCUD	S7706/S7712+SRUA/SRUB	S7706/S7712+SRUE/SRUH/SRUH(A1/X1)
		VLANIF interface				
		ETH-Trunk interface-based 802.1X authentication	Yes	Yes	Yes	Yes
		ETH-Trunk interface-based MAC address authentication	Yes	Yes	Yes	Yes
		MAC address-based 802.1X authentication	Yes	Yes	Yes	Yes
		Layer 2 Ethernet interface-based MAC authentication	Yes	Yes	Yes	Yes
		Ethernet interface-based 802.1X authentication	Yes	Yes	Yes	Yes
		Hybrid authentication	Yes	Yes	Yes	Yes
		Functioning as the control device in terms of policy association	Yes	Yes	Yes	Yes
	-	MACsec	Yes	Yes	Yes	Yes
	ND snooping	Global ND snooping	Yes	Yes	Yes	Yes
		Interface-based ND snooping	Yes	Yes	Yes	Yes
		VLAN-based ND snooping	Yes	Yes	Yes	Yes
ACL	Packet filtering at Layer 2 to Layer 4	Number of rules per IPv4 ACL	4K	4K	4K	4K
		Number of rules per IPv6 ACL	2K	2K	2K	2K
		Layer 2 ACL	Yes	Yes	Yes	Yes
		Basic IPv4 ACL	Yes	Yes	Yes	Yes
		Basic IPv6 ACL	Yes	Yes	Yes	Yes
		User group ACL	Yes	Yes	Yes	Yes
		User-defined ACL	Yes	Yes	Yes	Yes
		Advanced IPv4 ACL	Yes	Yes	Yes	Yes
		Advanced IPv6 ACL	Yes	Yes	Yes	Yes
OPS	-	OPS	No	No	No	Yes
QoS	-	HQoS	Yes	Yes	Yes	Yes
	CAR	Traffic policing	Yes	Yes	Yes	Yes
	CPU	Rate-limiting on the	Yes	Yes	Yes	Yes

Function and Feature		Description	S7703+MCUA	S7703+MCUD	S7706/S7712+SRUA/SRUB	S7706/S7712+SRUE/SRUH/SRUH(A1/X1)
	defense	sending of protocol packets to the CPU				
	Traffic classification	Matching the simple domains of packets	Yes	Yes	Yes	Yes
		Traffic classification based on ACLs	Yes	Yes	Yes	Yes
		Configuring traffic classification priorities	Yes	Yes	Yes	Yes
	Traffic behavior	Modifying the packet VLANs	Yes	Yes	Yes	Yes
		Modifying the packet priorities	Yes	Yes	Yes	Yes
		Modifying the simple domains of packets	Yes	Yes	Yes	Yes
		Traffic policing (CAR)	Yes	Yes	Yes	Yes
		Traffic filtering	Yes	Yes	Yes	Yes
		Traffic mirroring	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
		Weighted Random Early Detection (WRED) on interfaces	Yes	Yes	Yes	Yes
		WRED on queues	Yes	Yes	Yes	Yes
	Congestion management	Priority Queuing (PQ) + Weighted Deficit Round Robin (WDRR)	Yes	Yes	Yes	Yes
		PQ + Weighted Round Robin (WRR)	Yes	Yes	Yes	Yes
		PQ	Yes	Yes	Yes	Yes
		WDRR	Yes	Yes	Yes	Yes
		WRR	Yes	Yes	Yes	Yes
VXLAN	BGP EVPN	Dynamic creation of VXLAN tunnels through BGP EVPN	No	Yes	No	Yes
		BGP EVPN neighbor specifications	No	1000	No	1000
	IPv4	IPv4 address configured for a	No	Yes	No	Yes

Function and Feature		Description	S7703+MCUA	S7703+MCUD	S7706/S7712+SRUA/SRUB	S7706/S7712+SRUE/SRUH/SRUH(A1/X1)
	gateway	VBDIF interface				
		Distributed VXLAN IPv4 gateway	No	Yes	No	Yes
		Centralized VXLAN IPv4 gateway	No	Yes	No	Yes
	IPv6 gateway	IPv6 address configured for a VBDIF interface	No	Yes	No	Yes
		Distributed VXLAN IPv6 gateway	No	Yes	No	Yes
		Centralized VXLAN IPv6 gateway	No/Yes	No/Yes	No	Yes
	-	VXLAN Layer 2 gateway	No/Yes	No/Yes	No	Yes
WLAN	-	AP management	Yes	Yes	Yes	Yes
		Number of managed APs	512	512	1K	4K
		WLAN QoS	Yes	Yes	Yes	Yes
		WLAN service management	Yes	Yes	Yes	Yes
		WLAN security	Yes	Yes	Yes	Yes
		Radio management	Yes	Yes	Yes	Yes
		WLAN user management	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
Value-added service[1]	-	Firewall	Yes	Yes	Yes	Yes
		NAT	Yes	Yes	Yes	Yes
		NetStream	Yes	Yes	Yes	Yes
		IPSec	Yes	Yes	Yes	Yes
		Load balancing	Yes	Yes	Yes	Yes
		IPS	Yes	Yes	Yes	Yes

NOTE

1: The S7700 supports the NGFW, which is the next-generation firewall card, and the IPS card. For more specification information of IPS card, visit http://support.huawei.com/enterprise/docinforeader.action?contentId=DOC1000047724&idPath=7919710|9856724|21430824|21100539|21081581.

Hardware Specifications

The following table lists the hardware specifications of the S7700.

Hardware specifications of S7703 and S7703-PoE models

Item			S7703	S7703-PoE
Physical specifications	Chassis dimensions (W x D x H, mm)		442×517.4×175	442×517.4×175
	Chassis height		4 U	4 U
	Weight (empty/fully loaded)		10 kg/31.6 kg	10.3 kg/33.8 kg
	Main control unit slots		2	2
	LPU slots		3	3
	Slot direction		Horizontal	Horizontal
Environment parameters	Operating altitude and temperature		• -60 m to +1800 m: 0°C to 45°C • 1800 m to 4000 m: The operating temperature decreases 1°C for every 220 m increase in altitude. • More than 4000 m: 0°C to 35°C	• -60 m to +1800 m: 0°C to 45°C • 1800 m to 4000 m: The operating temperature decreases 1°C for every 220 m increase in altitude. • More than 4000 m: 0°C to 35°C
	Storage temperature		-40°C to +70°C	-40°C to +70°C
	Operating relative humidity		5% RH to 95% RH, noncondensing	5% RH to 95% RH, noncondensing
	Storage relative humidity		5% RH to 95% RH, noncondensing	5% RH to 95% RH, noncondensing
	Noise under normal temperature		≤ 72 dB	≤ 72 dB
	Ingress Protection (IP) level		IP20	IP20
System power supply	System's maximum power consumption		1000 W	1185 W
	Power supply slots		2	3
	800 W AC	Surge protection specification (power port)	• Common mode: ±4 kV • Differential mode: ±2 kV	• Common mode: ±4 kV • Differential mode: ±2 kV
		Input voltage and output power	• Input voltage: 90 V to 290 V • Output power: 800 W (220 V), 400 W (110 V)	• Input voltage: 90 V to 290 V • Output power: 800 W (220 V), 400 W (110 V)
		Backup mode	2 (1:1)	3 (M+N)

Item			S7703	S7703-PoE
		System's maximum power supply capability	• 800 W (220 V) • 400 W (110 V)	• 2400 W (220 V) • 1200 W (110 V)
	2200 W AC	Surge protection specification (power port)	• Common mode: ±4 kV • Differential mode: ±2 kV	• Common mode: ±4 kV • Differential mode: ±2 kV
		Input voltage and output power	• Input voltage: 90 V to 290 V • Output power: 2200 W (220 V), 1100 W (110 V)	• Input voltage: 90 V to 290 V • Output power: 2200 W (220 V), 1100 W (110 V)
		Backup mode	2 (1:1)	3 (M+N)
		System's maximum power supply capability	• 2200 W (220 V) • 1100 W (110 V)	• 6600 W (220 V) • 3300 W (110 V)
	3000 W AC	Surge protection specification (power port)	• Common mode: ±6 kV • Differential mode: ±6 kV	• Common mode: ±6 kV • Differential mode: ±6 kV
		Input voltage and output power	AC: • Input voltage: 90 V to 290 V • Output power: 3000 W (220 V), 1500 W (110 V) DC: • Input power: 190 V DC to 290 V DC • Output power: 3000 W (rated voltage of 240 V DC)	AC: • Input voltage: 90 V to 290 V • Output power: 3000 W (220 V), 1500 W (110 V) DC: • Input power: 190 V DC to 290 V DC • Output power: 3000 W (rated voltage of 240 V DC)
		Backup mode	2 (1:1)	3 (M+N)
		System's maximum power supply capability	• 3000 W (220 V) • 1500 W (110 V)	• 9000 W (220 V) • 4500 W (110 V)
	1600 W DC	Surge protection specification (power port)	• Common mode: ±2 kV • Differential mode: ±1 kV	• Common mode: ±2 kV • Differential mode: ±1 kV
		Input voltage and output power	• Input voltage: -38.4 V to -72 V • Output power:1600 W	NA
		Backup mode	2 (1:1)	NA
		System's maximum power supply capability	1600 W	NA
	2200 W DC	Surge protection	• Common mode: ±4 kV	• Common mode: ±4 kV

Item			S7703	S7703-PoE
		specification (power port)	• Differential mode: ±2 kV	• Differential mode: ±2 kV
		Input voltage and output power	• Input voltage: -40 V to -72 V • Output power: 2200 W	• Input voltage: -40 V to -72 V • Output power: 2200 W
		Backup mode	2 (1:1)	3 (M+N)
		System's maximum power supply capability	2200 W	6600 W
PoE power supply	Relationships between PoE power supply and system power supply		PoE power supply is independent of the system power supply. A non-PoE chassis does not provide the PoE power supply.	They share the power supply slots, and N+0/N+1/N+N/AUTO backup is supported.
	PoE power supply slot		1	3
	800 W AC	Surge protection specification (power port)	• Common mode: ±4 kV • Differential mode: ±2 kV	• Common mode: ±4 kV • Differential mode: ±2 kV
		Input voltage and output power	• Input voltage: 90 V to 290 V • Output power: 800 W (220 V), 400 W (110 V)	• Input voltage: 90 V to 290 V • Output power: 800 W (220 V), 400 W (110 V)
		Backup mode	1 (no backup)	N+0/N+1/N+N/AUTO backup
		System's maximum PoE power output	• 800 W (220 V) • 400 W (110 V)	• Up to 2400 W (220 V) • Up to 1200 W (110 V)
	2200 W AC	Surge protection specification (power port)	• Common mode: ±4 kV • Differential mode: ±2 kV	• Common mode: ±4 kV • Differential mode: ±2 kV
		Input voltage and output power	• Input voltage: 90 V to 290 V • Output power: 2200 W (220 V), 1100 W (110 V)	• Input voltage: 90 V to 290 V • Output power: 2200 W (220 V), 1100 W (110 V)
		Backup mode	1 (no backup)	N+0/N+1/N+N/AUTO backup
		System's maximum PoE power output	• 2200 W (220 V) • 1100 W (110 V)	• Up to 6600 W (220 V) • Up to 3300 W (110 V)
	3000 W AC	Surge protection specification (power port)	• Common mode: ±6 kV • Differential mode: ±6 kV	• Common mode: ±6 kV • Differential mode: ±6 kV
		Input voltage and output power	AC: • Input voltage: 90 V to 290 V • Output power: 3000 W (220 V), 1500 W (110 V) DC: • Input power: 190 V DC to 290 V	AC: • Input voltage: 90 V to 290 V • Output power: 3000 W (220 V), 1500 W (110 V) DC: • Input power: 190 V DC to 290

Item			S7703	S7703-PoE
			DC • Output power: 3000 W (rated voltage of 240 V)	V DC • Output power: 3000 W (rated voltage of 240 V)
		Backup mode	1 (no backup)	N+0/N+1/N+N/AUTO backup
		System's maximum PoE power output	• 3000 W (220 V) • 1500 W (110 V)	• Up to 9000 W (220 V) • Up to 4500 W (110 V)
	2200 W DC	Surge protection specification (power port)	• Common mode: ±4 kV • Differential mode: ±2 kV	• Common mode: ±4 kV • Differential mode: ±2 kV
		Input voltage and output power	• Input voltage: -40 V to -72 V • Output power: 2200 W	• Input voltage: -40 V to -72 V • Output power: 2200 W
		Backup mode	1 (no backup)	N+0/N+1/N+N/AUTO backup
		System's maximum PoE power output	2200 W	Up to 6600 W
System heat dissipation	Heat dissipation mode		Use of fans for heat dissipation	Use of fans for heat dissipation
	Airflow direction		Left-to-rear	Left-to-rear
	Automated fan speed adjustment		Supported	Supported
	Heat dissipation (BTU/hour)		Maximum power consumption (W)*3.4121	Maximum power consumption (W)*3.4121
	Coefficient of Performance (COP)		• Normal temperature: 70 • High temperature: 21.8	• Normal temperature: 70 • High temperature: 21.8
	Number of fan trays		1	1
Hardware reliability	MTBF (year)[1]		33.8	33.8
	MTTR (minute)[1]		64	64
	Availability[1]		0.9999964	0.9999964
	Fan backup		1 fan tray	1 fan tray
	MCU and SFU backup		Main control units work in hot standby mode.	Main control units work in hot standby mode.
	Hot swappable design		Power modules, fan trays, CSS subcards, and all cards are hot swappable.	Power modules, fan trays, CSS subcards, and all cards are hot swappable.
	CMU backup		N/A	N/A
Technical specifications	Port density	Maximum number of FE ports	144	144
		Maximum of GE ports	144	144
		Maximum	144	144

Item			S7703	S7703-PoE
		number of 10GE ports		
		Maximum of 40GE ports	24	24
		Maximum of 100GE ports	18	18
	PoE port density	PoE standards compliance	• 802.3af (PoE) • 802.3at (PoE+)	• 802.3af (PoE) • 802.3at (PoE+) • 802.3bt (PoE++)
		Number of PoE ports per interface card[2]	48	48

Hardware specifications of S7706 and S7706-PoE models

Item			S7706	S7706-PoE
Physical specifications	Chassis dimensions (W x D x H, mm)		442×517.4×441.7	442×517.4×441.7
	Chassis height		10 U	10 U
	Weight (empty/fully loaded)		15 kg/61.8 kg	21.3 kg/78.1 kg
	Main control unit slots		2	2
	LPU slots		6	6
	Slot direction		Horizontal	Horizontal
Environment parameters	Operating altitude and temperature		• -60 m to +1800 m: 0°C to 45°C • 1800 m to 4000 m: The operating temperature decreases 1°C for every 220 m increase in altitude. • More than 4000 m: 0°C to 35°C	• -60 m to +1800 m: 0°C to 45°C • 1800 m to 4000 m: The operating temperature decreases 1°C for every 220 m increase in altitude. • More than 4000 m: 0°C to 35°C
	Storage temperature		-40°C to +70°C	-40°C to +70°C
	Operating relative humidity		5% RH to 95% RH, noncondensing	5% RH to 95% RH, noncondensing
	Storage relative humidity		5% RH to 95% RH, noncondensing	5% RH to 95% RH, noncondensing
	Noise under normal temperature		≤ 72 dB	≤ 72 dB
	Ingress Protection (IP) level		IP20	IP20
System power supply	System's maximum power consumption		2200 W	2640 W
	Power supply slots		4	8
	800 W AC	Surge protection specification	• Common mode: ±4 kV • Differential mode: ±2 kV	• Common mode: ±4 kV • Differential mode: ±2 kV

Item			S7706	S7706-PoE
		(power port)		
		Input voltage and output power	• Input voltage: 90 V to 290 V • Output power: 800 W (220 V), 400 W (110 V)	• Input voltage: 90 V to 290 V • Output power: 800 W (220 V), 400 W (110 V)
		Backup mode	4 (2:2)	8 (M+N)
		System's maximum power supply capability	• 1600 W (220 V) • 800 W (110 V)	• 6400 W (220 V) • 3200 W (110 V)
	2200 W AC	Surge protection specification (power port)	• Common mode: ±4 kV • Differential mode: ±2 kV	• Common mode: ±4 kV • Differential mode: ±2 kV
		Input voltage and output power	• Input voltage: 90 V to 290 V • Output power: 2200 W (220 V), 1100 W (110 V)	• Input voltage: 90 V to 290 V • Output power: 2200 W (220 V), 1100 W (110 V)
		Backup mode	4 (2:2)	8 (M+N)
		System's maximum power supply capability	• 4400 W (220 V) • 2200 W (110 V)	• 19600 W (220 V) • 8800 W (110 V)
	3000 W AC	Surge protection specification (power port)	• Common mode: ±6 kV • Differential mode: ±6 kV	• Common mode: ±6 kV • Differential mode: ±6 kV
		Input voltage and output power	AC: • Input voltage: 90 V to 290 V • Output power: 3000 W (220 V), 1500 W (110 V) DC: • Input power: 190 V DC to 290 V DC • Output power: 3000 W (rated voltage of 240 V DC)	AC: • Input voltage: 90 V to 290 V • Output power: 3000 W (220 V), 1500 W (110 V) DC: • Input power: 190 V DC to 290 V DC • Output power: 3000 W (rated voltage of 240 V DC)
		Backup mode	4 (2:2)	8 (M+N)
		System's maximum power supply capability	• 4400 W (220 V) • 3000 W (110 V)	• 24000 W (220 V) • 12000 W (110 V)
	1600 W DC	Surge protection specification (power port)	• Common mode: ±2 kV • Differential mode: ±1 kV	• Common mode: ±2 kV • Differential mode: ±1 kV
		Input voltage and output power	• Input voltage: -38.4 V to -72 V • Output power:1600 W	NA
		Backup mode	2 (1:1)	NA

Item			S7706	S7706-PoE
		System's maximum power supply capability	1600 W	NA
	2200 W DC	Surge protection specification (power port)	• Common mode: ±4 kV • Differential mode: ±2 kV	• Common mode: ±4 kV • Differential mode: ±2 kV
		Input voltage and output power	• Input voltage: -40 V to -72 V • Output power: 2200 W	• Input voltage: -40 V to -72 V • Output power: 2200 W
		Backup mode	4 (2+2)	8 (M+N)
		System's maximum power supply capability	4400 W	19600 W
PoE power supply	Relationships between PoE power supply and system power supply		PoE power supply is independent of the system power supply. A non-PoE chassis does not provide the PoE power supply.	They share the power supply slots, and N+0/N+1/N+N/AUTO backup is supported.
	PoE power supply slot		4	8
	800 W AC	Surge protection specification (power port)	• Common mode: ±4 kV • Differential mode: ±2 kV	• Common mode: ±4 kV • Differential mode: ±2 kV
		Input voltage and output power	• Input voltage: 90 V to 290 V • Output power: 800 W (220 V), 400 W (110 V)	• Input voltage: 90 V to 290 V • Output power: 800 W (220 V), 400 W (110 V)
		Backup mode	4 (M+N)	N+0/N+1/N+N/AUTO backup
		System's maximum PoE power output	• 3200 W (220 V) • 1600 W (110 V)	• Up to 6400 W (220 V) • Up to 3200 W (110 V)
	2200 W AC	Surge protection specification (power port)	• Common mode: ±4 kV • Differential mode: ±2 kV	• Common mode: ±4 kV • Differential mode: ±2 kV
		Input voltage and output power	• Input voltage: 90 V to 290 V • Output power: 2200 W (220 V), 1100 W (110 V)	• Input voltage: 90 V to 290 V • Output power: 2200 W (220 V), 1100 W (110 V)
		Backup mode	4 (M+N)	N+0/N+1/N+N/AUTO backup
		System's maximum PoE power output	• 8800 W (220 V) • 4400 W (110 V)	• Up to 19600 W (220 V) • Up to 8800 W (110 V)
	3000 W AC	Surge protection specification (power port)	• Common mode: ±6 kV • Differential mode: ±6 kV	• Common mode: ±6 kV • Differential mode: ±6 kV

Item			S7706	S7706-PoE
		Input voltage and output power	AC: • Input voltage: 90 V to 290 V • Output power: 3000 W (220 V), 1500 W (110 V) DC: • Input power: 190 V DC to 290 V DC • Output power: 3000 W (rated voltage of 240 V)	AC: • Input voltage: 90 V to 290 V • Output power: 3000 W (220 V), 1500 W (110 V) DC: • Input power: 190 V DC to 290 V DC • Output power: 3000 W (rated voltage of 240 V)
		Backup mode	4 (M+N)	N+0/N+1/N+N/AUTO backup
		System's maximum PoE power output	• 8800 W (220 V) • 6000 W (110 V)	• Up to 24000 W (220 V) • Up to 12000 W (110 V)
	2200 W DC	Surge protection specification (power port)	• Common mode: ±4 kV • Differential mode: ±2 kV	• Common mode: ±4 kV • Differential mode: ±2 kV
		Input voltage and output power	• Input voltage: -40 V to -72 V • Output power: 2200 W	• Input voltage: -40 V to -72 V • Output power: 2200 W
		Backup mode	4 (M+N)	N+0/N+1/N+N/AUTO backup
		System's maximum PoE power output	8800 W	Up to 19600 W
System heat dissipation	Heat dissipation mode		Use of fans for heat dissipation	Use of fans for heat dissipation
	Airflow direction		Left-to-rear	Left-to-rear
	Automated fan speed adjustment		Supported	Supported
	Heat dissipation (BTU/hour)		Maximum power consumption (W)*3.4121	Maximum power consumption (W)*3.4121
	Coefficient of Performance (COP)		• Normal temperature: 70 • High temperature: 21.8	• Normal temperature: 70 • High temperature: 21.8
	Number of fan trays		2	2
Hardware reliability	MTBF (year)[1]		24.2	24.2
	MTTR (minute)[1]		52	52
	Availability[1]		0.9999959	0.9999959
	Fan backup		2 fan trays	2 fan trays
	MCU and SFU backup		Main control units work in hot standby mode and SFUs works in 1+1 load balancing mode.	Main control units work in hot standby mode and SFUs works in 1+1 load balancing mode.
	Hot swappable design		Power modules, fan trays, CSS subcards, and all cards are hot swappable.	Power modules, fan trays, CSS subcards, and all cards are hot swappable.

Item			S7706	S7706-PoE
	CMU backup		Active/standby redundant backup	Active/standby redundant backup
Technical specifications	Port density	Maximum number of FE ports	288	288
		Maximum of GE ports	288	288
		Maximum number of 10GE ports	288	288
		Maximum of 40GE ports	48	48
		Maximum of 100GE ports	36	36
	PoE port density	PoE standards compliance	• 802.3af (PoE) • 802.3at (PoE+)	• 802.3af (PoE) • 802.3at (PoE+) • 802.3bt (PoE++)
		Number of PoE ports per interface card[2]	48	48

Hardware specifications of S7712 models

Item		S7712 (Without PoE)	S7712 (With PoE)
Physical specifications	Chassis dimensions (W x D x H, mm)	442×517.4×663.9	442×517.4×663.9
	Chassis height	15 U	15 U
	Weight (empty/fully loaded)	25 kg/97 kg	25 kg/97 kg
	Main control unit slots	2	2
	LPU slots	12	12
	Slot direction	Horizontal	Horizontal
Environment parameters	Operating altitude and temperature	• -60 m to +1800 m: 0°C to 45°C • 1800 m to 4000 m: The operating temperature decreases 1°C for every 220 m increase in altitude. • More than 4000 m: 0°C to 35°C	• -60 m to +1800 m: 0°C to 45°C • 1800 m to 4000 m: The operating temperature decreases 1°C for every 220 m increase in altitude. • More than 4000 m: 0°C to 35°C
	Storage temperature	-40°C to +70°C	-40°C to +70°C
	Operating relative humidity	5% RH to 95% RH, noncondensing	5% RH to 95% RH, noncondensing
	Storage relative humidity	5% RH to 95% RH, noncondensing	5% RH to 95% RH, noncondensing
	Noise under normal temperature	≤ 72 dB	≤ 72 dB

Item			S7712 (Without PoE)	S7712 (With PoE)
	Ingress Protection (IP) level		IP20	IP20
System power supply	System's maximum power consumption		4200 W	4200 W
	Power supply slots		4	4
	800 W AC	Surge protection specification (power port)	• Common mode: ±4 kV • Differential mode: ± 2kV	• Common mode: ±4 kV • Differential mode: ± 2kV
		Input voltage and output power	• Input voltage: 90 V to 290 V • Output power: 800 W (220 V), 400 W (110 V)	• Input voltage: 90 V to 290 V • Output power: 800 W (220 V), 400 W (110 V)
		Backup mode	4 (2:2)	4 (2:2)
		System's maximum power supply capability	• 1600 W (220 V) • 800 W (110 V)	• 1600 W (220 V) • 800 W (110 V)
	2200 W AC	Surge protection specification (power port)	• Common mode: ±4 kV • Differential mode: ±2 kV	• Common mode: ±4 kV • Differential mode: ±2 kV
		Input voltage and output power	• Input voltage: 90 V to 290 V • Output power: 2200 W (220 V), 1100 W (110 V)	• Input voltage: 90 V to 290 V • Output power: 2200 W (220 V), 1100 W (110 V)
		Backup mode	4 (2:2)	4 (2:2)
		System's maximum power supply capability	• 4400 W (220 V) • 2200 W (110 V)	• 4400 W (220 V) • 2200 W (110 V)
	3000 W AC	Surge protection specification (power port)	• Common mode: ±6 kV • Differential mode: ±6 kV	• Common mode: ±6 kV • Differential mode: ±6 kV
		Input voltage and output power	AC: • Input voltage: 90 V to 290 V • Output power: 3000 W (220 V), 1500 W (110 V) DC: • Input power: 190 V DC to 290 V DC • Output power: 3000 W (rated voltage of 240 V DC)	AC: • Input voltage: 90 V to 290 V • Output power: 3000 W (220 V), 1500 W (110 V) DC: • Input power: 190 V DC to 290 V DC • Output power: 3000 W (rated voltage of 240 V DC)
		Backup mode	4 (2:2)	4 (2:2)
		System's maximum power supply capability	• 4400 W (220 V) • 3000 W (110 V)	• 4400 W (220 V) • 3000 W (110 V)

Item			S7712 (Without PoE)	S7712 (With PoE)
	1600 W DC	Surge protection specification (power port)	• Common mode: ±2 kV • Differential mode: ±1 kV	• Common mode: ±2 kV • Differential mode: ±1 kV
		Input voltage and output power	• Input voltage: -38.4 V to -72 V • Output power:1600 W	• Input voltage: -38.4 V to -72 V • Output power:1600 W
		Backup mode	2 (1:1)	2 (1:1)
		System's maximum power supply capability	1600 W	1600 W
	2200 W DC	Surge protection specification (power port)	• Common mode: ±4 kV • Differential mode: ±2 kV	• Common mode: ±4 kV • Differential mode: ±2 kV
		Input voltage and output power	• Input voltage: -40 V to -72 V • Output power: 2200 W	• Input voltage: -40 V to -72 V • Output power: 2200 W
		Backup mode	4 (2+2)	4 (2+2)
		System's maximum power supply capability	4400 W	4400 W
PoE power supply	Relationships between PoE power supply and system power supply		PoE power supply is independent of the system power supply. A non-PoE chassis does not provide the PoE power supply.	PoE power supply is independent of the system power supply. A non-PoE chassis does not provide the PoE power supply.
	PoE power supply slot		0	4
	800 W AC	Surge protection specification (power port)	NA	• Common mode: ±4 kV • Differential mode: ±2 kV
		Input voltage and output power	NA	• Input voltage: 90 V to 290 V • Output power: 800 W (220 V), 400 W (110 V)
		Backup mode	NA	4 (M+N)
		System's maximum PoE power output	NA	• 3200 W (220 V) • 1600 W (110 V)
	2200 W AC	Surge protection specification (power port)	NA	• Common mode: ±4 kV • Differential mode: ±2 kV
		Input voltage and output power	NA	• Input voltage: 90 V to 290 V • Output power: 2200 W (220 V), 1100 W (110 V)

Item			S7712 (Without PoE)	S7712 (With PoE)
		Backup mode	NA	4 (M+N)
		System's maximum PoE power output	NA	• 8800 W (220 V) • 4400 W (110 V)
	3000 W AC	Surge protection specification (power port)	NA	• Common mode: ±6 kV • Differential mode: ±6 kV
		Input voltage and output power	NA	AC: • Input voltage: 90 V to 290 V • Output power: 3000 W (220 V), 1500 W (110 V) DC: • Input power: 190 V DC to 290 V DC • Output power: 3000 W (rated voltage of 240 V)
		Backup mode	NA	4 (M+N)
		System's maximum PoE power output	NA	• 8800 W (220 V) • 6000 W (110 V)
	2200 W DC	Surge protection specification (power port)	NA	• Common mode: ±4 kV • Differential mode: ±2 kV
		Input voltage and output power	NA	• Input voltage: -40 V to -72 V • Output power: 2200 W
		Backup mode	NA	4 (M+N)
		System's maximum PoE power output	NA	8800 W
System heat dissipation	Heat dissipation mode		Use of fans for heat dissipation	Use of fans for heat dissipation
	Airflow direction		Left-to-rear	Left-to-rear
	Automated fan speed adjustment		Supported	Supported
	Heat dissipation (BTU/hour)		Maximum power consumption (W)*3.4121	Maximum power consumption (W)*3.4121
	Coefficient of Performance (COP)		• Normal temperature: 70 • High temperature: 21.8	• Normal temperature: 70 • High temperature: 21.8
	Number of fan trays		4	4
Hardware reliability	MTBF (year)[1]		24.1	24.1
	MTTR (minute)[1]		52	52
	Availability[1]		0.9999959	0.9999959

Item			S7712 (Without PoE)	S7712 (With PoE)
	Fan backup		4 fan trays	4 fan trays
	MCU and SFU backup		Main control units work in hot standby mode and SFUs works in 1+1 load balancing mode.	Main control units work in hot standby mode and SFUs works in 1+1 load balancing mode.
	Hot swappable design		Power modules, fan trays, CSS subcards, and all cards are hot swappable.	Power modules, fan trays, CSS subcards, and all cards are hot swappable.
	CMU backup		Active/standby redundant backup	Active/standby redundant backup
Technical specifications	Port density	Maximum number of FE ports	576	576
		Maximum of GE ports	576	576
		Maximum number of 10GE ports	576	576
		Maximum of 40GE ports	96	96
		Maximum of 100GE ports	72	72
	PoE port density	PoE standards compliance	NA	• 802.3af (PoE) • 802.3at (PoE+)
		Number of PoE ports per interface card[2]	NA	48

NOTE

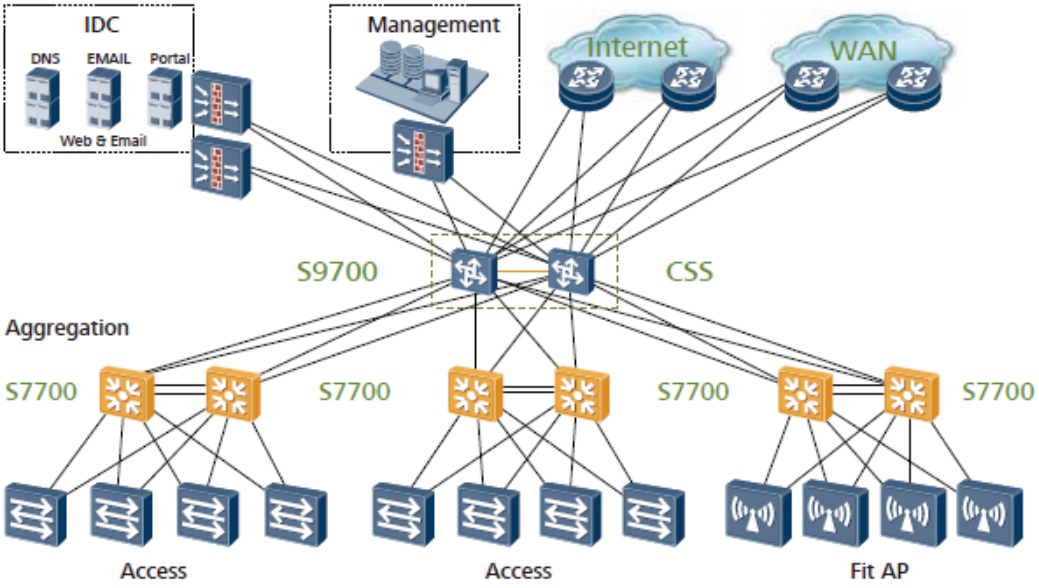
1: The reliability parameter values are calculated based on the typical configuration of the device. The parameter values vary according to the modules configured by the customer.

2: The number of working PoE ports depends on the maximum PoE power provided by the device and the maximum power consumption of PDs.

Networking and Applications

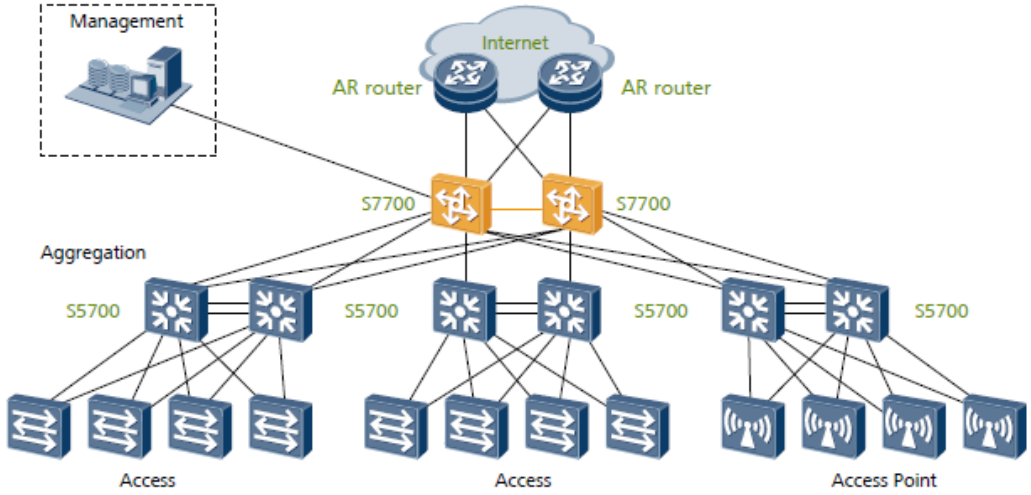
Large-Sized Campus Networks

The S7700 can be used as an aggregation switch on a large-scale campus network, helping to build a highly reliable, scalable, and manageable enterprise network. With hardware-based CPU queue scheduling and firewall modules, the S7700 enhances security at the aggregation layer and protects the enterprise's core network from DDoS attacks and other security threats.



Small- and Medium-Sized Campus Networks

The S7700 implements line-speed forwarding of OSPF, BGP, and MPLS packets. With its firewall and IPSec modules, the S7700 can work at the core layer of small- and medium-sized campus networks. It provides a cost-effective, reliable, and easy-to-deploy network solution for small- and medium-sized enterprises.



Safety and Regulatory Compliance

The following table lists the safety and regulatory compliance of the S7700.

Safety and regulatory compliance of the S7700 series

Certification Category	Description
Safety	• IEC 60950-1 • EN 60950-1 • UL 60950-1 • CSA C22.2 No 60950-1 • AS/NZS 60950.1 • BS EN 60950-1 • CNS 14336-1

Certification Category	Description
Electromagnetic Compatibility (EMC)	• CISPR22 Class A • CISPR24 • EN55022 Class A • 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 • IEC61000-6-2 • IEC61000-6-4 • IEC61000-4-2 • ITU-T K 20 • ITU-T K 21 • ITU-T K 44 • CNS13438
Environment	• RoHS • REACH • WEEE
Laser safety	• IEC60825-1 • IEC60825-2 • EN60825-1 • EN60825-2

MIB and Standards Compliance

The following table lists the MIBs supported by the S7700 series.

MIBs supported by the S7700 series

Category	MIB
Public MIB	• BGP4-MIB • BRIDGE-MIB • DISMAN-NSLOOKUP-MIB • DISMAN-PING-MIB • DISMAN-TRACEROUTE-MIB • ENTITY-MIB • EtherLike-MIB • IF-MIB • IP-FORWARD-MIB • IPMCAST-MIB • IPv6-ICMP-MIB • IPv6-MIB • IPv6-TCP-MIB

Category	MIB
	• IPv6-UDP-MIB • ISIS-MIB • LAG-MIB • LLDP-EXT-DOT1-MIB • LLDP-EXT-DOT3-MIB • LLDP-MIB • MGMD-STD-MIB • MPLS-FTN-STD-MIB • MPLS-L3VPN-STD-MIB • MPLS-LDP-GENERIC-STD-MIB • MPLS-LDP-STD-MIB • MPLS-LSR-STD-MIB • MPLS-TE-STD-MIB • MSDP-MIB • NOTIFICATION-LOG-MIB • NQA-MIB • OSPF-MIB • OSPF-TRAP-MIB • P-BRIDGE-MIB • PIM-BSR-MIB • PIM-STD-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 • SNMP-VIEW-BASED-ACM-MIB • TCP-MIB • UDP-MIB • VRRP-MIB • VRRPv3-MIB
Huawei-proprietary MIB	• HUAWEI-AAA-MIB • HUAWEI-ACL-MIB • HUAWEI-ALARM-MIB • HUAWEI-ALARM-RELIABILITY-MIB • HUAWEI-BASE-TRAP-MIB • HUAWEI-BFD-MIB

Category	MIB
	• HUAWEI-BGP-VPN-MIB • HUAWEI-BRAS-RADIUS-MIB • HUAWEI-BRAS-SRVCFG-EAP-MIB • HUAWEI-BRAS-SRVCFG-STATICUSER-MIB • HUAWEI-BULKSTAT-MIB • HUAWEI-CBQOS-MIB • HUAWEI-CCC-MIB • HUAWEI-CONFIG-MAN-MIB • HUAWEI-CLOCK-MIB • HUAWEI-CPU-MIB • HUAWEI-DAD-MIB • HUAWEI-DC-TRAP-MIB • HUAWEI-DATASYNC-MIB • HUAWEI-DEVICE-MIB • HUAWEI-DHCPR-MIB • HUAWEI-DHCPS-MIB • HUAWEI-DHCP-SNOOPING-MIB • HUAWEI-DIE-MIB • HUAWEI-DNS-MIB • HUAWEI-DLDP-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-E-TRUNK-MIB • HUAWEI-FLASH-MAN-MIB • HUAWEI-FTP-MIB • HUAWEI-FWD-RES-TRAP-MIB • HUAWEI-GARP-APP-MIB • HUAWEI-GTL-MIB • HUAWEI-GTSM-MIB • HUAWEI-HGMP-MIB • HUAWEI-HQOS-MIB • HUAWEI-HWTACACS-MIB • HUAWEI-IF-EXT-MIB • HUAWEI-INFOCENTER-MIB • HUAWEI-IPFPM-MIB • HUAWEI-IPLPM-MIB • HUAWEI-IPMCAST-MIB • HUAWEI-IPPOOL-MIB • HUAWEI-IPSESSION-MIB

Category	MIB
	• HUAWEI-IPV6-MIB • HUAWEI-ISOLATE-MIB • HUAWEI-KOMPELLA-MIB • HUAWEI-L2IF-MIB • HUAWEI-L2MAM-MIB • HUAWEI-L2MULTICAST-MIB • HUAWEI-L2VLAN-MIB • HUAWEI-L2VPN-MIB • HUAWEI-LDT-MIB • HUAWEI-LSP-PING-TRACE-TRAP-MIB • HUAWEI-LINE-MIB • HUAWEI-LLDP-MIB • HUAWEI-MAC-AUTHEN-MIB • HUAWEI-MDNS-RELAY-MIB • HUAWEI-MEMORY-MIB • HUAWEI-MFF-MIB • HUAWEI-MFLP-MIB • HUAWEI-MGMD-STD-MIB • HUAWEI-MPLS-EXTEND-MIB • HUAWEI-MPLSLDP-MIB • HUAWEI-MPLSLSR-EXT-MIB • HUAWEI-MPLSOAM-MIB • HUAWEI-MSDP-MIB • HUAWEI-MSTP-MIB • HUAWEI-MULTICAST-MIB • HUAWEI-NETSTREAM-MIB • HUAWEI-NTPV3-MIB • HUAWEI-OSPFV2-MIB • HUAWEI-OSPFV3-MIB • HUAWEI-PERFORMANCE-MIB • HUAWEI-PIM-BSR-MIB • HUAWEI-PIM-STD-MIB • HUAWEI-PERFMGMT-MIB • HUAWEI-PORT-MIB • HUAWEI-PORTAL-MIB • HUAWEI-PWE3-MIB • HUAWEI-PWE3-TNL-MIB • HUAWEI-QINQ-MIB • HUAWEI-RIPv2-EXT-MIB • HUAWEI-RM-EXT-MIB • HUAWEI-RRPP-MIB • HUAWEI-RSVPTE-MIB • HUAWEI-SECURITY-MIB • HUAWEI-SEP-MIB • HUAWEI-SMARTLINK-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-TASK-MIB • HUAWEI-TCP-MIB • HUAWEI-TFTPC-MIB • HUAWEI-TRNG-MIB • HUAWEI-TUNNEL-MIB • HUAWEI-TUNNEL-TE-MIB • HUAWEI-UNIMNG-MIB • HUAWEI-USC-MIB • HUAWEI-VPLS-EXT-MIB • HUAWEI-VPLS-TNL-MIB • HUAWEI-VPN-DIAGNOSTICS-MIB • HUAWEI-VRRP-EXT-MIB • HUAWEI-WLAN-DEVICE-MIB • HUAWEI-WLAN-QOS-MIBB • HUAWEI-WLAN-RADIO-MIB • HUAWEI-WLAN-SECURITY-MIB • HUAWEI-WLAN-SERVICE-MIB • HUAWEI-WLAN-SYS-MIB • HUAWEI-WLAN-UPDATE-MIB • HUAWEI-WLAN-WIDS-MIB • HUAWEI-XQOS-MIB

NOTE

For more information about MIBs supported by the S7700 series, visit https://support.huawei.com/enterprise/en/switches/s7700-pid-6805481?category=reference-guides&subcategory=mib-reference

Supported MIBs

Standard Compliance

The following table lists the standards that the S7700 complies with.

Standard compliance list of the S7700 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)

Standard Organization	Standard or Protocol
	• 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 • 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

Standard Organization	Standard or Protocol
	• 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 802.1sMultiple Spanning Tree Protocol • IEEE 802.1x Port based network access control protocol • IEEE 802.3az Energy Efficient Ethernet • IEEE 802.1AE MAC Security (MACsec)
ITU	• ITU SG13 Y.17ethoam • ITU SG13 QoS control Ethernet-Based IP Access • ITU-T Y.1730 ETH OAM performance monitor • ITU-T Y.1731 ETH OAM performance monitor • ITU-T Y.1710 Requirements for OAM functionality for MPLS networks • ITU-T Y.1711 Operation and maintenance mechanism for MPLS networks • ITU-T Y.1720 Protection switching for MPLS networks
ISO	• ISO 10589IS-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

Ordering Information

NOTE

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.

Basic Configuration	
LE0BN66EDC	N66E DC Assembly Rack (Four 40A outputs, maximum 1600W per output, 600X600X2200mm)

Basic Configuration	
LE0BN66EAC	N66E AC Assembly Rack (Eight 10A Outputs, maximum 1600W per output, 600X600X2200mm)
LE2BN66EA000	N66E AC Assembly Rack (Four 16A Outputs, maximum 2500W per output, 600X600X2200mm)
ES0B00770300	S7703 Assembly Chassis
SWC02BAKN001	S7703 PoE assembly chassis
ES0B00770600	S7706 Assembly Chassis
SWC02BAKJ000	S7706 PoE assembly chassis
ES0B00771200	S7712 Assembly Chassis
ES0E2FBX	Wide Voltage Fan Box
ES1M00FBX001	Enhancement Wide Voltage 68 Fan Box
EH1M00FBX000	Wide Voltage 74 Fan Box

Monitoring Board	
EH1D200CMU00	Centralized Monitoring Board

Main Control Unit		Supported Version
ES0D00MCUA00	S7703 Main Control Unit A	
ES1D2MCUD000	S7703 Main Control Unit D	V200R019C00 and later versions
ES0D00SRUA00	S7706/S7712 Main Control Unit A	
ES1D2SRUE000	S7706/S7712,Main Control Unit E	
ES1D2SRUH000	S7706/S7712 Main Control Unit H	
LSS7SRUHA100	S7706/S7712 Main Control Unit H(A1)	V200R019C00 and later versions
LSS7SRUHX100	S7706/S7712 Main Control Unit H(X1)	V200R019C10 and later versions

SRU Service Card	
ES02VSTSA	Cluster Switching System Service Unit
ES1D2VS04000	4-Port 10G Cluster Switching System Service Unit (SFP+)

10/100/1000BASE-T Interface Card		Supported Version
ES0D0G48TC01	48-Port 10/100/1000BASE-T Interface Card (EC, RJ45)	V200R019C00 and later versions
ES1M2G48TX5S	48-port 10/100/1000BASE-T interface card (X5S,M,RJ45)	V200R019C00 and later versions

10/100/1000BASE-T Interface Card		Supported Version
ES1M2G48TX5E	48-port 10/100/1000BASE-T interface card (X5E,M,RJ45)	V200R019C00 and later versions

POE Interface Card		Supported Version
LSS7G48VX5E0	48-port 100/1000BASE-T PoE interface card (X5E, RJ45, PoE++)	V200R019C10 and later versions
LSS7G48VA1S0	48-port 10/100/1000BASE-T PoE interface card (EA1, RJ45, PoE++)	V200R020C00 and later versions

100/1000BASE-X Interface Card		Supported Version
ES0D0G48SC01	48-Port 100/1000BASE-X Interface Card (EC, SFP)	V200R019C00 and later versions
LSS7G48SX6S0	48-port GE SFP interface card (X6S,SFP)	V200R019C00 and later versions
LSS7G48SX6E0	48-port GE SFP interface card (X6E,SFP)	V200R019C00 and later versions

10GBASE-X Interface Card		Supported Version
ES1D2X08SX5H	8-port 10GE SFP+ interface card (X5H, SFP+)	
ES0D0X12SA01	12-Port 10GBASE-X Interface Card(SA, SFP+)	V200R019C00 and later versions
LSS7X24BX6S0	24-port 10GE SFP+ interface and 24-port GE SFP interface card (X6S,SFP+)	V200R019C00 and later versions
LSS7X24BX6E0	24-port 10GE SFP+ interface and 24-port GE SFP interface card (X6E,SFP+)	V200R019C00 and later versions
ES1D2X16SSC2	16-Port 10GBASE-X Interface Card (SC,SFP+)	
ES1D2X32SSC0	32-Port 10GBASE-X Interface Card (SC,SFP+)	
LSS7X48SX6S0	48-port 10GE SFP+ interface card (X6S,SFP+)	V200R019C00 and later versions
LSS7X48SX6E0	48-port 10GE SFP+ interface card (X6E,SFP+)	V200R019C00 and later versions

40GE/100GE BASE-X Interface Card		Supported Version
LSS7C02BX6E0	2-port 100GE QSFP28 interface and 4-port 40GE QSFP28 interface card (X6E,QSFP28)	V200R020C00 and later versions

100GE BASE-X Interface Card	Supported Version

100GE BASE-X Interface Card		Supported Version
LSS7C06HX6S0	6-port 100GE QSFP28 interface card (X6S,QSFP28)	V200R019C00 and later versions
LSS7C06HX6E0	6-port 100GE QSFP28 interface card (X6E,QSFP28)	V200R019C00 and later versions

Power Module		Supported Version
ES02PSD16	1600W DC Power Module(Black)	
W2PSA0800	800W AC Power Module(Black)	
PAC-2200WF	2200W AC Power Module	
W2PSD2200	2200W DC Power Module(Black)	
PAC3KS54-CE	3000W AC power module (Black)	V200R019C00 and later versions
PAC3KS54-NE	3000W AC power module (Black)	V200R020C10 and later versions
LE0W01DPDB	DC Power Distribution Unit (Four 40A outputs, maximum 1600 W per output, include power cable) **NOTE** The S7700 series switches use NEMA-compliant power cable.	
IN6W18L10A	AC Power Distribution Unit (Eight 10A outputs, maximum 1600 W per output, include power cable) **NOTE** The S7700 series switches use NEMA-compliant power cable.	
IM1W24APD	AC Power Distribution Unit (Four 16A outputs, maximum 2500 W per output, include power cable) **NOTE** The S7700 series switches use NEMA-compliant power cable.	

Software	
ES1SMS2D7700	S7700 Basic SW,V200R013C00
ES1SMS2J7700	S7700 Basic SW,V200R019C00
ES1SMS2J7701	S7700 Basic SW,V200R019C10
ESS7R20C00SW	S7700 Basic SW,V200R020C00
ESS7R20C10SW	S7700 Basic SW,V200R020C10

License

License	
ES0SSVFF7700	SVF Function License(with S7700 used)
ES0SMPLS7700	MPLS Function License
ES0SNQAF7700	NQA Function License
ES0SIPV67700	IPV6 Function License
ES1SVXLAN000	VXLAN enhanced function license(used in S7700 series)
ES1SFIB128K0	X-series LPU FIB Resource License-128K
ES1SWL512AP0	WLAN Access Controller AP Resource License-512AP (with the X-series LPU used)
ES1SWL128AP0	WLAN Access Controller AP Resource License-128AP (with the X-series LPU used)
ES1SWL64AP00	WLAN Access Controller AP Resource License-64AP (with the X-series LPU used)
ES1SWL16AP00	WLAN Access Controller AP Resource License-16AP (with the X-series LPU used)
ES1SPPPOE4K0	PPPoE Access Subscriber Resource License-4K (with the X-series LPU used)
ES1SPPPOE8K0	PPPoE Access Subscriber Resource License-8K (with the X-series LPU used)
ES1SPPPOE16K	PPPoE Access Subscriber Resource License-16K (with the X-series LPU used)
L-ACU2-128AP	ACU2 Wireless Access Controller AP Resource License(128 AP)
N1-S77-F-Lic	N1-CloudCampus,Foundation,S77 Series,Per Device
N1-S77-F-SnS1Y	N1-CloudCampus,Foundation,S77 Series,SnS,Per Device,1Year
N1-S77-A-Lic	N1-CloudCampus,Advanced,S77 Series,Per Device
N1-S77-A-SnS1Y	N1-CloudCampus,Advanced,S77 Series,SnS,Per Device,1Year
N1-S77-FToA-Lic	N1-Upgrade-Foundation to Advanced,S77 Series,Per Device
N1-S77-FToA-SnS1Y	N1-Upgrade-Foundation to Advanced,S77 Series,SnS,Per Device,1Year
N1-AC1.0-AM-15-Lic	N1-CloudCampus,Access Management-AC1.0,15 Terminals
N1-AC1.0-AM-15-SnS1Y	N1-CloudCampus,Access Management-AC1.0,15 Terminals,SnS,1Year
CI-X7MSwitch-U	CampusInsight-Upgrade-Foundation to Advanced, X7 Series Modular Switch, Per Device
CI-X7MSwitch-U-SnS1Y	CampusInsight-Upgrade-Foundation to Advanced, X7 Series Modular Switch, SnS, Per Device, 1 Year

Documentation	
EH1IV2RDC0E0	S7700 and S9700 Series Switches V200R013C00 Product Documentation
EH1IV2RJC0E0	S7700 Series Switches V200R019C00 Product Documentation
EH1IV2RJC1E0	S7700 Series Switches V200R019C10 Product Documentation

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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