S5720-EI Series Enhanced Gigabit Switches

Huawei S5720-EI series switches provide flexible all-gigabit access and enhanced 10GE uplink port scalability. They are widely used as access/aggregation switches in enterprise campus networks or gigabit access switches in data centers.

Product Overview

The S5720-EI series switches provide flexible GE access ports (including optical, electrical, and combo ports) and 10GE uplink ports. Built on next-generation high-performance processors and the Huawei Versatile Routing Platform (VRP), the S5720-EI provides larger table sizes and higher hardware processing capabilities than equivalent switches. Besides, it provides comprehensive service processing capabilities, enhanced security control, and mature IPv6 features, and supports MACsec, intelligent stack (iStack), flexible Ethernet networking, and easy operations and maintenance (O&M).

Models and Appearances

Models and Appearances	Description
 S5720-32P-EI-AC	• 24 Ethernet 10/100/1000 ports, 4 100/1000 SFP, 4 Gig SFP, 2 QSFP+ dedicated stack ports • AC power supply, supporting Redundant Power Supply (RPS), power socket on the front panel • Forwarding performance: 48 Mpps • Switching capacity: 598 Gbit/s
 S5720-32X-EI-AC	• 24 Ethernet 10/100/1000 ports, 4 100/1000 SFP, 4 10 Gig SFP+, 2 QSFP+ dedicated stack ports • AC or DC power supply, supporting RPS, power socket on the front panel • Forwarding performance: 102 Mpps • Switching capacity: 598 Gbit/s
 S5720-32X-EI-24S-AC	• 24 Gig SFP, 4 Ethernet 10/100/1000 ports, 4 10 Gig SFP+, 2 QSFP+ dedicated stack ports • AC power supply, supporting RPS, power socket on the front panel • Forwarding performance: 102 Mpps • Switching capacity: 598 Gbit/s
 S5720-36C-EI-28S-AC	• 28 Gig SFP, 4 of which are dual-purpose 10/100/1000, 4 10 Gig SFP+ • One extended slot • Double hot swappable AC or DC power supplies, one AC power module equipped by default • Forwarding performance: 132 Mpps

Models and Appearances	Description
	• Switching capacity: 598 Gbit/s
 S5720-36C-EI-28S-DC	• 28 Gig SFP, 4 of which are dual-purpose 10/100/1000, 4 10 Gig SFP+ • One extended slot • Double hot swappable AC or DC power supplies, one DC power module equipped by default • Forwarding performance: 132 Mpps • Switching capacity: 598 Gbit/s
 S5720-36C-EI-AC	• 28 Ethernet 10/100/1000 ports, 4 of which are dual-purpose 10/100/1000 or SFP, 4 10 Gig SFP+ • One extended slot • Double hot swappable AC or DC power supplies, one AC power module equipped by default • Forwarding performance: 132 Mpps • Switching capacity: 598 Gbit/s
 S5720-36C-PWR-EI-AC	• 28 Ethernet 10/100/1000 PoE+ ports, 4 of which are dual-purpose 10/100/1000 or SFP, 4 10 Gig SFP+ • One extended slot • PoE+ • Double hot swappable AC or DC power supplies, one AC power module equipped by default • Forwarding performance: 132 Mpps • Switching capacity: 598 Gbit/s
 S5720-36PC-EI-AC	• 28 Ethernet 10/100/1000 ports, 4 of which are dual-purpose 10/100/1000 or SFP, 4 Gig SFP • One extended slot • Double hot swappable AC or DC power supplies, one AC power module equipped by default • Forwarding performance: 78 Mpps • Switching capacity: 598 Gbit/s
 S5720-52X-EI-AC	• 48 Ethernet 10/100/1000 ports, 4 10 Gig SFP+, 2 QSFP+ dedicated stack ports • AC power supply, supporting RPS • Forwarding performance: 132 Mpps • Switching capacity: 598 Gbit/s
 S5720-52P-EI-AC	• 48 Ethernet 10/100/1000 ports, 4 Gig SFP, 2 QSFP+ dedicated stack ports • AC power supply, supporting RPS • Forwarding performance: 78 Mpps • Switching capacity: 598 Gbit/s
 S5720-56C-EI-48S-AC	• 48 Gig SFP, 4 10 Gig SFP+ • One extended slot • Double hot swappable AC or DC power supplies, one AC power module equipped by default • Forwarding performance: 162 Mpps • Switching capacity: 598 Gbit/s

Models and Appearances	Description
 S5720-56C-EI-48S-DC	• 48 Gig SFP, 4 10 Gig SFP+ • One extended slot • Double hot swappable AC or DC power supplies, one DC power module equipped by default • Forforwarding performance: 162 Mpps • Switching capacity: 598 Gbit/s
 S5720-56C-EI-AC	• 48 Ethernet 10/100/1000 ports, 4 10 Gig SFP+ • One extended slot • Double hot swappable AC or DC power supplies, one AC power module equipped by default • Forwarding performance: 162 Mpps • Switching capacity: 598 Gbit/s
 S5720-56C-EI-DC	• 48 Ethernet 10/100/1000 ports, 4 10 Gig SFP+ • One extended slot • Double hot swappable AC or DC power supplies, one DC power module equipped by default • Forwarding performance: 162 Mpps • Switching capacity: 598 Gbit/s
 S5720-56C-PWR-EI-AC	• 48 Ethernet 10/100/1000 PoE+ ports, 4 10 Gig SFP+ • One extended slot • PoE+ • Double hot swappable AC or DC power supplies, one AC power module equipped by default • Forwarding performance: 162 Mpps • Switching capacity: 598 Gbit/s
 S5720-56C-PWR-EI-AC1	• 48 Ethernet 10/100/1000 PoE+ ports, 4 10 Gig SFP+ • One extended slot • PoE+ • Double hot swappable AC power supplies, one AC power module equipped by default • Forwarding performance: 162 Mpps • Switching capacity: 598 Gbit/s
 S5720-56PC-EI-AC	• 48 Ethernet 10/100/1000 ports, 4 Gig SFP • One extended slot • Double hot swappable AC or DC power supplies, one AC power module equipped by default • Forwarding performance: 108 Mpps • Switching capacity: 598 Gbit/s

Features and Highlights

Easy O&M

- The S5720-EI models with power sockets on the front panel can be installed in a 300 mm deep cabinet and maintained from the front panel. This simplifies equipment O&M and allows more flexible cabinet deployment. The small-sized cabinets can be placed against a wall or back to back to save space in the equipment room.
- The S5720-EI allows management personnel to remotely switch on the SYS indicator on the front panel. After configuration commands are used, the SYS indicator quickly blinks within a certain period, helping the management personnel locate the device in the equipment room quickly and efficiently.
- The S5720-EI supports Super Virtual Fabric (SVF), which virtualizes the "Core/aggregation + Access switch + AP" structure into a logical device. The S5720-EI enables the innovative network management solution in the industry. It allows plug-and-play access switches and APs. In addition, the S5720-EI 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 S5720-EI functions as a client in an SVF system.
- The S5720-EI supports Easy Operation, a solution that provides zero-touch deployment, replacement of faulty devices without additional configuration, USB-based deployment, batch configuration, and batch remote upgrade. The Easy Operation solution facilitates device deployment, upgrade, service provisioning, and other management and maintenance operations, greatly reducing O&M costs. The S5720-EI can be managed using Simple Network Management Protocol (SNMP) v1/v2c/v3, command line interface (CLI), web-based network management system, or Secure Shell (SSH) V2.0. Additionally, it supports remote network monitoring (RMON), multiple log hosts, port traffic statistics collection, and network quality analysis, which facilitate network optimization and reconstruction.
- The S5720-EI supports Two-Way Active Measurement Protocol (TWAMP) to accurately check any IP link and obtain the entire network's IP performance. This protocol eliminates the need of using a dedicated probe or a proprietary protocol.

Intelligent O&M

- The S5720-EI 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 S5720-EI 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 S5720-EI supports iStack. This technology can virtualize up to nine physical switches into one 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 provides strong network expansion capability, enables easy increase of ports, bandwidth, and processing capacity of a stack, and simplifies configuration and management.
- The S5720-EI is equipped with two removable power modules that can work in 1+1 redundancy backup mode. Mixed installation of AC and DC power modules is supported, allowing for flexible configuration of AC or DC power modules according to service requirements. The S5720-EI provides two removable fan modules. The fan speed can be adjusted according to working temperatures of the device, improving device reliability.
- In addition to traditional STP, RSTP, and MSTP, the S5720-EI 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 S5720-EI supports Smart Link and Virtual Router Redundancy Protocol (VRRP), which implement backup of uplinks. One S5720-EI switch can connect to multiple aggregation switches through multiple links, significantly improving reliability of access devices.
- In addition, the S5720-EI provides multiple connection fault detection mechanisms, including Ethernet OAM (IEEE 802.3ah/802.1ag/ITU Y.1731) and Bidirectional Forwarding Detection (BFD).

Enhanced Service Processing Capability and Comprehensive Security Control Mechanisms

- The S5720-EI supports the multi-VPN-instance CE (MCE) function, which allows users in different VPNs to connect. The switch supports large multi-instance routing tables to isolate users in different VPNs. Users in multiple VPNs connect to a provider edge (PE) device through the same physical port on the switch, which reduces the cost on VPN network deployment. The S5720-EI supports Multiprotocol Label Switching (MPLS) L3VPN, MPLS L2VPN (VPWS\VPLS), MPLS-TE, and MPLS QoS. It is one of a few cost-effective MPLS-capable fixed switches.
- The S5720-EI 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.
- With enhanced network admission control (NAC) functions, the S5720-EI supports 802.1x authentication, MAC address authentication, Portal authentication, and hybrid authentication, and can dynamically delivery user policies such as VLANs, QoS policies, and access control lists (ACLs). It also supports user management based on user groups. You can specify authentication-free IP network segments and enable redirection of HTTP connection requests to realize fast deployment of clients. If clients do not support HTTP access, the S5720-EI can trigger Portal authentication for the clients.
- The S5720-EI 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 S5720-EI 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 S5720-EI supports strict ARP learning, which protects a network against ARP spoofing attacks to ensure normal network access

Mature IPv6 Technologies

- The S5720-EI uses the mature, stable VRP software platform and supports IPv4/IPv6 dual stacks, IPv6 routing protocols (RIPng, OSPFv3, BGP4+, and IS-ISv6), and IPv6 over IPv4 tunnels (including manual, 6-to-4, and ISATAP tunnels). With these IPv6 features, the S5720-EI can be deployed on a pure IPv4 network, a pure IPv6 network, or a shared IPv4/IPv6 network, helping achieve IPv4-to-IPv6 transition.

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.

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.

Product Specifications

Item	S5720-32P-EI-AC	S5720-32X-EI-AC	S5720-32X-EI-24S-AC
Fixed ports	24 10/100/1000Base-T, 4 100/1000 SFP, 4 1000 SFP, 2 40 Gig QSFP+ dedicated	24 10/100/1000 Base-T, 4 Gig SFP, 4 10 Gig SFP+, 2 40 Gig QSFP+ dedicated	24 Gig SFP, 4 10/100/1000Base-T, 4 10 Gig SFP+, 2 40 Gig QSFP+

Item	S5720-32P-EI-AC	S5720-32X-EI-AC	S5720-32X-EI-24S-AC
	stack ports	stack ports	dedicated stack ports
Dimensions (W x D x H)	442 mm x 220 mm x 43.6 mm	442 mm x 220 mm x 43.6 mm	442 mm x 220 mm x 43.6 mm
Chassis height	1 U	1 U	1 U
Input voltage	• Rated AC voltage: 100-240 V AC; 50/60 Hz • Max AC voltage: 90-264 V AC; 47/63 Hz	AC: • Rated AC voltage: 100-240 V AC; 50/60 Hz • Max AC voltage: 90-264 V AC; 47/63 Hz DC: • Rated AC voltage: -48V DC to -60 V DC Max AC voltage: -36 V DC to -72 V DC	• Rated AC voltage: 100-240 V AC; 50/60 Hz • Max AC voltage: 90-264 V AC; 47/63 Hz
Maximum power consumption	50.7 W	51.9 W	• S5720-32X-EI-24S-AC: 58.9 W
Typical power consumption	39.75 W	40.85 W	• S5720-32X-EI-24S-AC: 55.46 W
Operating temperature	• 0-1800 m altitude: 0°C to 45°C • 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude increases by 220 m.	• 0-1800 m altitude: 0°C to 45°C • 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude increases by 220 m.	• 0-1800 m altitude: 0°C to 45°C • 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude increases by 220 m.
Relative humidity	5% to 95% (non-condensing)	5% to 95% (non-condensing)	5% to 95% (non-condensing)
Heat dissipation	Heat dissipation using fans supporting intelligent speed adjustment	Heat dissipation using fans supporting intelligent speed adjustment	Heat dissipation using fans supporting intelligent speed adjustment
Surge Protection	Surge protection capability of service ports: ±8 kV	Surge protection capability of service ports: ±8 kV	Surge protection capability of service ports: ±8 kV

Item	S5720-52P-EI-AC	S5720-52X-EI-AC	S5720-36PC-EI-AC	S5720-36C-EI-AC	S5720-36C-PWR-EI-AC
Fixed ports	48 10/100/1000Base-T, 4 Gig SFP, 2 40 Gig QSFP+ dedicated stack ports	48 10/100/1000Base-T, 4 10 Gig SFP+, 2 40 Gig QSFP+ dedicated stack ports	28 10/100/1000Base-T, 4 Combo (10/100/1000BASE-T or 100/1000BASE-X), 4 Gig SFP	28 10/100/1000Base-T, 4 Combo (10/100/1000BASE-T or 100/1000BASE-X), 4 10 Gig SFP+	28 10/100/1000Base-T, 4 Combo (10/100/1000BASE-T or 100/1000BASE-X), 4 10 Gig SFP+
Dimensions (W x D x H)	442 mm x 220 mm x 43.6 mm	442 mm x 220 mm x 43.6 mm	442 mm x 420 mm x 44.4 mm	442 mm x 420 mm x 44.4 mm	442 mm x 420 mm x 44.4 mm

Item	S5720-52P-EI-AC	S5720-52X-EI-AC	S5720-36PC-EI-AC	S5720-36C-EI-AC	S5720-36C-PWR-EI-AC
Chassis height	1 U	1 U	1 U	1 U	1 U
Extended slot	NA	NA	One expansion slot used to support the following functions: • Service subcard: – 2-port 10GE SFP+ optical interface card • Stack card – 2-port QSFP+ dedicated stack interface card	One expansion slot used to support the following functions: • Service subcard: – 2-port 10GE SFP+ optical interface card • Stack card – 2-port QSFP+ dedicated stack interface card	One expansion slot used to support the following functions: • Service subcard: – 2-port 10GE SFP+ optical interface card • Stack card – 2-port QSFP+ dedicated stack interface card
Input voltage	AC: • Rated AC voltage: 100-240 V AC; 50/60 Hz • Max AC voltage: 90-264 V AC; 47/63 Hz	AC: • Rated AC voltage: 100-240 V AC; 50/60 Hz • Max AC voltage: 90-264 V AC; 47/63 Hz	AC: • Rated AC voltage: 100-240 V AC; 50/60 Hz • Max AC voltage: 90-264 V AC; 47/63 Hz DC: • Rated AC voltage: -48V DC to -60 V DC • Max AC voltage: -36 V DC to -72 V DC	AC: • Rated AC voltage: 100-240 V AC; 50/60Hz • Max AC voltage: 90-264 V AC; 47/63 Hz DC: • Rated AC voltage: -48 V DC to -60 V DC • Max AC voltage: -36 V DC to -72 V DC	AC: • Rated AC voltage: 100-240 V AC; 50/60 Hz • Max AC voltage: 90-264 V AC; 47/63 Hz DC: • Rated AC voltage: -48 V DC to -60 V DC • Max AC voltage: -36 V DC to -72 V DC
Maximum power consumption	60.3 W	61.5 W	74.6 W	75.8 W	• PoE not used: 78 W • PoE used: 864.3 W (PoE: 739.2 W)
Typical power consumption	51.14 W	52.25 W	• 39.5 W (excluding subcards) • 47.28 W (including the 2-port 10GE SFP+ optical interface	• 39.5 W (excluding subcards) • 47.28 W (including the 2-port 10GE SFP+ optical	• 48.45 W (excluding subcards) • 56.14 W (including the 2-port 10GE SFP+ optical

Item	S5720-52P-EI-AC	S5720-52X-EI-AC	S5720-36PC-EI-AC	S5720-36C-EI-AC	S5720-36C-PWR-EI-AC
			card) • 52.17 W (including the 2-port QSFP+ dedicated stack interface card)	interface card) • 52.17 W (including the 2-port QSFP+ dedicated stack interface card)	interface card) • 60.76 W (including the 2-port QSFP+ dedicated stack interface card)
Operating temperature	• 0-1800 m altitude: 0°C to 45°C • 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude increases by 220 m.	• 0-1800 m altitude: 0°C to 45°C • 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude increases by 220 m.	• 0-1800 m altitude: -5°C to +50°C • 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude increases by 220 m.	• 0-1800 m altitude: -5°C to +50°C • 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude increases by 220 m.	• 0-1800 m altitude: -5°C to +50°C • 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude increases by 220 m.
Relative humidity	5% to 95% (non-condensing)	5% to 95% (non-condensing)	5% to 95% (non-condensing)	5% to 95% (non-condensing)	5% to 95% (non-condensing)
Heat dissipation	Heat dissipation using fans supporting intelligent speed adjustment	Heat dissipation using fans supporting intelligent speed adjustment	Heat dissipation using fans supporting intelligent speed adjustment	Heat dissipation using fans supporting intelligent speed adjustment	Heat dissipation using fans supporting intelligent speed adjustment
Surge Protection	Surge protection capability of service ports: ±8 kV	Surge protection capability of service ports: ±8 kV	Surge protection capability of service ports: ±8 kV	Surge protection capability of service ports: ±8 kV	Surge protection capability of service ports: ±8 kV

Item	S5720-36C-EI-28S-AC S5720-36C-EI-28S-DC	S5720-56C-EI-AC S5720-56C-EI-DC	S5720-56C-PWR-EI-AC S5720-56C-PWR-EI-AC1	S5720-56C-EI-48S-AC S5720-56C-EI-48S-DC	S5720-56PC-EI-AC
Fixed ports	28 Gig SFP, 4 Combo (10/100/1000BASE-T or 100/1000BASE-X), 4 10 Gig SFP+	48 10/100/1000Base-T, 4 10 Gig SFP+	48 10/100/1000Base-T, 4 10 Gig SFP+	48 Gig SFP, 4 10 Gig SFP+	48 10/100/1000Base-T, 4 Gig SFP
Dimensions (W x D x H)	442 mm x 420 mm x 44.4 mm	442 mm x 420 mm x 44.4 mm	442 mm x 420 mm x 44.4 mm	442 mm x 420 mm x 44.4 mm	442 mm x 420 mm x 44.4 mm
Chassis height	1 U	1 U	1 U	1 U	1 U
Extended slot	One expansion	One expansion	One expansion	One expansion	One expansion

Item	S5720-36C-EI-28S-AC S5720-36C-EI-28S-DC	S5720-56C-EI-AC S5720-56C-EI-DC	S5720-56C-PWR-EI-AC S5720-56C-PWR-EI-AC1	S5720-56C-EI-48S-AC S5720-56C-EI-48S-DC	S5720-56PC-EI-AC
	slot used to support the following functions: • Service subcard: − 2-port 10GE SFP+ optical interface card • Stack card − 2-port QSFP+ dedicated stack interface card	slot used to support the following functions: • Service subcard: − 2-port 10GE SFP+ optical interface card • Stack card − 2-port QSFP+ dedicated stack interface card	slot used to support the following functions: • Service subcard: − 2-port 10GE SFP+ optical interface card • Stack card − 2-port QSFP+ dedicated stack interface card	slot used to support the following functions: • Service subcard: − 2-port 10GE SFP+ optical interface card • Stack card − 2-port QSFP+ dedicated stack interface card	slot used to support the following functions: • Service subcard: − 2-port 10GE SFP+ optical interface card • Stack card − 2-port QSFP+ dedicated stack interface card
Input voltage	AC: • Rated AC voltage: 100-240V AC; 50/60Hz • Max AC voltage: 90-264V AC; 47/63Hz DC: • Rated AC voltage: -48- -60V DC • Max AC voltage: -36 to -72 V DC	AC: • Rated AC voltage: 100-240V AC; 50/60Hz • Max AC voltage: 90-264V AC; 47/63Hz DC: • Rated AC voltage: -48- -60V DC • Max AC voltage: -36 to -72 V DC	AC: • Rated AC voltage: 100-240V AC; 50/60Hz • Max AC voltage: 90-264V AC; 47/63Hz DC: • Rated AC voltage: -48- -60V DC • Max AC voltage: -36 to -72 V DC	AC: • Rated AC voltage: 100-240V AC; 50/60Hz • Max AC voltage: 90-264V AC; 47/63Hz DC: • Rated AC voltage: -48- -60V DC • Max AC voltage: -36 to -72 V DC	AC: • Rated AC voltage: 100-240V AC; 50/60Hz • Max AC voltage: 90-264V AC; 47/63Hz DC: • Rated AC voltage: -48- -60V DC • Max AC voltage: -36 to -72 V DC
Typical power consumption	83.9 W	86.9 W	• PoE not used:91.6 W • PoE used:889.4W (PoE: 739.2 W)	104 W	85.7 W
Typical power consumption	• 47.86 W (excluding subcards) • 55.35 W (including the 2-port 10GE SFP+ optical interface card) • 60.25 W	• 40.45 W (excluding subcards) • 47.78 W (including the 2-port 10GE SFP+ optical interface card) • 52.87 W	• 53.5 W (excluding subcards) • 61.12 W (including the 2-port 10GE SFP+ optical interface card) • 65.85 W	• 68.82 W (excluding subcards) • 76.55 W (including the 2-port 10GE SFP+ optical interface card)	• 40.45 W (excluding subcards) • 47.78 W (including the 2-port 10GE SFP+ optical interface card) • 52.87 W

Item	S5720-36C-EI-28S-AC S5720-36C-EI-28S-DC	S5720-56C-EI-AC S5720-56C-EI-DC	S5720-56C-PWR-EI-AC S5720-56C-PWR-EI-AC1	S5720-56C-EI-48S-AC S5720-56C-EI-48S-DC	S5720-56PC-EI-AC
	(including the 2-port QSFP+ dedicated stack interface card)	(including the 2-port QSFP+ dedicated stack interface card)	(including the 2-port QSFP+ dedicated stack interface card)	• 81.23 W (including the 2-port QSFP+ dedicated stack interface card)	(including the 2-port QSFP+ dedicated stack interface card)
Operating temperature	• 0-1800 m altitude: -5°C to 50°C • 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude increases by 220 m.	• 0-1800 m altitude: -5°C to 50°C • 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude increases by 220 m.	• 0-1800 m altitude: -5°C to 50°C • 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude increases by 220 m.	• 0-1800 m altitude: -5°C to 50°C • 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude increases by 220 m.	• 0-1800 m altitude: -5°C to 50°C • 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude increases by 220 m.
Relative humidity	5% to 95% (non-condensing)	5% to 95% (non-condensing)	5% to 95% (non-condensing)	5% to 95% (non-condensing)	5% to 95% (non-condensing)
Heat dissipation	Heat dissipation using fans supporting intelligent speed adjustment	Heat dissipation using fans supporting intelligent speed adjustment	Heat dissipation using fans supporting intelligent speed adjustment	Heat dissipation using fans supporting intelligent speed adjustment	Heat dissipation using fans supporting intelligent speed adjustment
Surge Protection	Surge protection capability of service ports: ±8 kV	Surge protection capability of service ports: ±8 kV	Surge protection capability of service ports: ±8 kV	NA	Surge protection capability of service ports: ±8 kV

Service Features

Item	Description
MAC address table	IEEE 802.1d
	64K MAC address entries
	MAC address learning and aging
	Static, dynamic, and blackhole MAC address entries
	Packet filtering based on source MAC addresses
VLAN	4K VLANs
	Guest VLAN and voice VLAN
	GVRP

Item	Description
	MUX VLAN
	VLAN assignment based on MAC addresses, protocols, IP subnets, policies, and ports
	1: 1 and N: 1 VLAN mapping
	VLAN-based transparent transmission of protocol packets
Jumbo frame	12K
Ethernet loop protection	RRPP ring topology and RRPP multi-instance
	Smart Link tree topology and Smart Link multi-instance, providing millisecond-level protection switching
	SEP
	ERPS (G.8032)
	STP (IEEE 802.1d), RSTP (IEEE 802.1w), and MSTP (IEEE 802.1s)
	BPDU protection, root protection, and loop protection
	BPDU tunnel
MPLS	MPLS L3VPN
	MPLS L2VPN (VPWS/VPLS)
	MPLS-TE
	MPLS QoS
IP routing	Static routing, RIPv1/2, RIPng, OSPF, OSPFv3, IS-IS, IS-ISv6, BGP, BGP4+, ECMP, and policy-based routing
IPv6 features	Neighbor Discovery (ND)
	Path MTU (PMTU)
	IPv6 ping, IPv6 tracert, and IPv6 Telnet
	6to4 tunnel, ISATAP tunnel, and manually configured tunnel
	ACLs based on source IPv6 addresses, destination IPv6 addresses, Layer 4 ports, or protocol types
	MLD v1/v2 snooping
Multicast	IGMP v1/v2/v3 snooping and IGMP fast leave
	Multicast forwarding in a VLAN and multicast replication between VLANs
	Multicast load balancing among member ports of a trunk
	Controllable multicast
	Port-based multicast traffic statistics
	IGMP v1/v2/v3, PIM-SM, PIM-DM, and PIM-SSM
	MSDP
	MVPN
QoS/ACL	Rate limiting on packets sent and received by a port
	Packet redirection

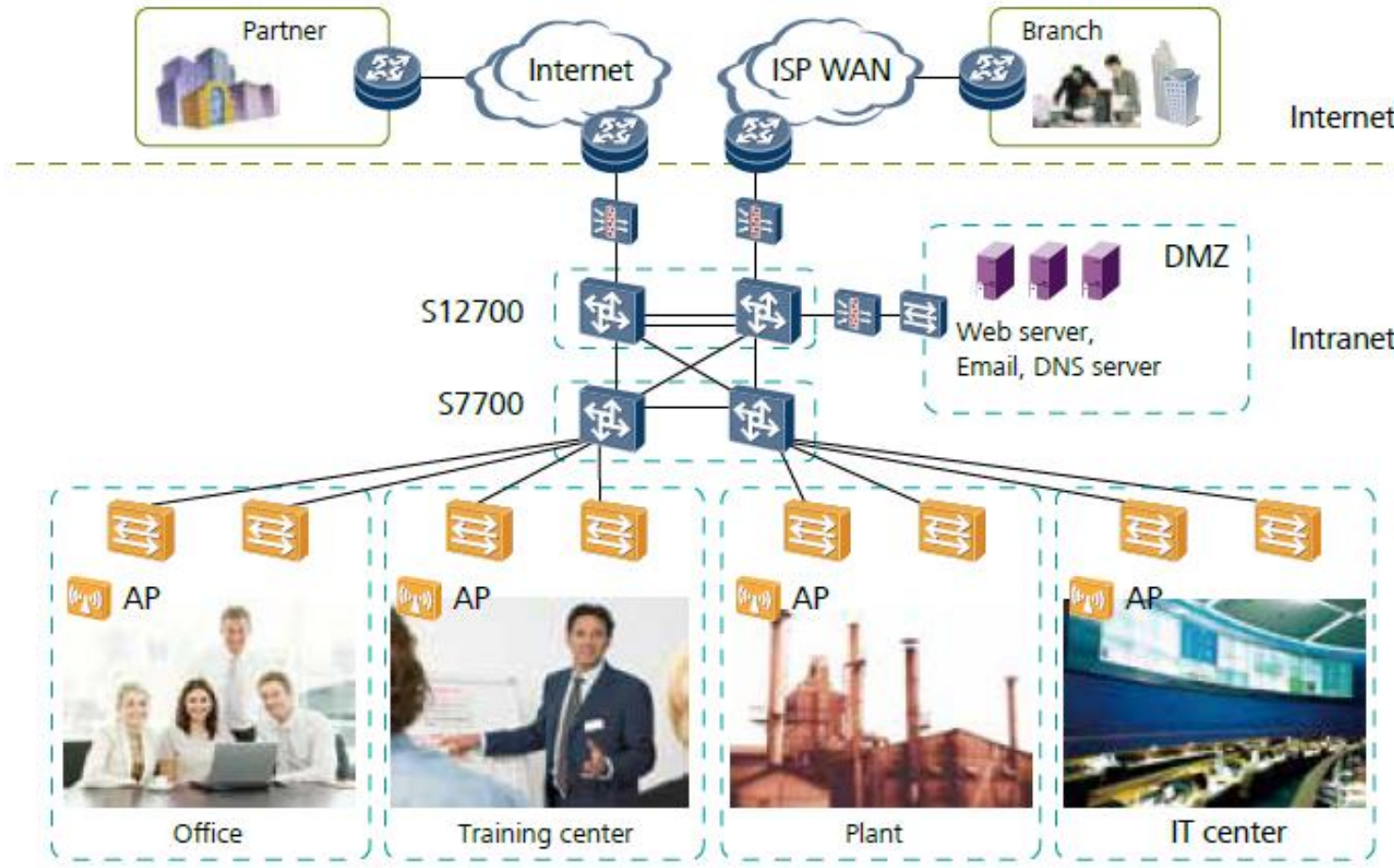
Item	Description
	Port-based traffic policing and two-rate three-color CAR
	Eight queues on each port
	WRR, DRR, SP, WRR+SP, and DRR+SP queue scheduling algorithms
	WRED
	Re-marking of the 802.1p priority and DSCP priority
	Packet filtering at Layer 2 to Layer 4, filtering out invalid frames based on the source MAC address, destination MAC address, source IP address, destination IP address, TCP/UDP port number, protocol type, and VLAN ID
	Rate limiting in each queue and traffic shaping on ports
	1: 1, N: 1, N: 4 port mirroring
Security	Hierarchical user management and password protection
	DoS attack defense, ARP attack defense, and ICMP attack defense
	Binding of the IP address, MAC address, port number, and VLAN ID
	Port isolation, port security, and sticky MAC
	MFF
	Blackhole MAC address entries
	Limit on the number of learned MAC addresses
	IEEE 802.1x authentication and limit on the number of users on a port
	AAA authentication, RADIUS authentication, and HWTACACS authentication
	NAC
	SSH v2.0
	HTTPS
	CPU defense
	Blacklist and whitelist
	Attack source tracing and punishment for IPv6 packets such as ND, DHCPv6, and MLD packets
	Supports separation between user authentication and policy enforcement points
	IPSec
Reliability	Ethernet OAM (IEEE 802.3ah and IEEE 802.1ag)
	ITU-Y.1731
	BFD for BGP, BFD for IS-IS, BFD for OSPF, BFD for static route
Super Virtual Fabric (SVF)	Plug-and-play SVF client
	Automatic software and patch loading to clients
	One-click and automatic delivery of service configurations
	Independent client running
TWAMP	Two-way IP link performance measurement

Item	Description
	Measurement on two-way packet delay, one-way packet loss rate, and one-way packet jitter
Management and maintenance	iStack
	Virtual cable test
	SNMP v1/v2c/v3
	RMON/RMON2
	Web-based NMS
	System logs and alarms of different levels
	sFlow
	802.3az Energy Efficient Ethernet (EEE)
Interoperability	VLAN-based Spanning Tree (VBST), working with PVST, PVST+, and RPVST
	Link-type Negotiation Protocol (LNP), similar to DTP
	VLAN Central Management Protocol (VCMP), similar to VTP

Networking and Applications

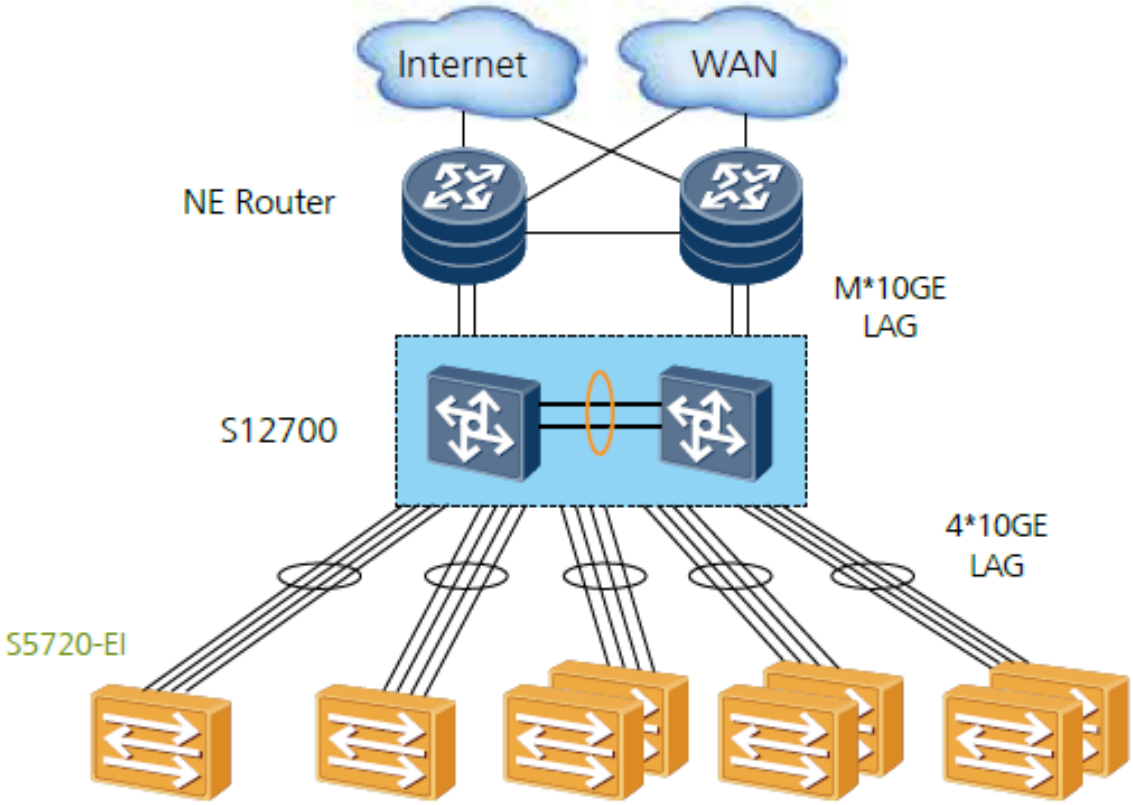
Large-sized enterprise networks

The S5720-EI can be used as an access switch in a large-sized enterprise network or as an aggregation device in a small- or medium-sized campus network. It supports link aggregation and dual-homing to improve network reliability.



Data center networks

The S5720-EI can be used in a data center to connect to gigabit servers. In a data center, S5720-EI switches connect to upstream aggregation switches through bundled links. If many servers are available, an S5720-EI stack can be used to facilitate network maintenance and improve network reliability.



Ordering Information

The following table lists ordering information of the S5720-EI series Ethernet switches.

Model	Product Description
S5720-32P-EI-AC	S5720-32P-EI-AC (24 Ethernet 10/100/1000 ports, 8 Gig SFP, AC 110/220 V, front access)
S5720-32X-EI-AC	S5720-32X-EI-AC (24 Ethernet 10/100/1000 ports, 4 Gig SFP, 4 10 Gig SFP+, AC 110/220 V, front access)
S5720-32X-EI-24S-AC	S5720-32X-EI-24S-AC (24 Gig SFP, 4 Ethernet 10/100/1000 ports, 4 10 Gig SFP+, AC 110/220 V, front access)
S5720-36C-EI-AC	S5720-36C-EI-AC (28 Ethernet 10/100/1000 ports, 4 of which are dual-purpose 10/100/1000 or SFP, 4 10 Gig SFP+, 1 interface slot, with 150 W AC)
S5720-36C-PWR-EI-AC	S5720-36C-PWR-EI-AC (28 Ethernet 10/100/1000 PoE+ ports, 4 of which are dual-purpose 10/100/1000 or SFP, 4 10 Gig SFP+, with 500 W AC power)
S5720-36PC-EI-AC	S5720-36PC-EI-AC (28 Ethernet 10/100/1000 ports, 4 of which are dual-purpose 10/100/1000 or SFP, 4 Gig SFP, 1 interface slot, with 150 W AC)
S5720-36C-EI-28S-AC	S5720-36C-EI-28S-AC (28 Gig SFP, 4 of which are dual-purpose 10/100/1000 or SFP, 4 10 Gig SFP+, with 1 interface slot, with 150 W AC power supply)
S5720-36C-EI-28S-DC	S5720-36C-EI-28S-DC(28 Gig SFP, 4 of which are dual-purpose 10/100/1000 or SFP, 4 10 Gig SFP+, with 1 interface slot, with 150 W DC power supply)
S5720-52X-EI-AC	S5720-52X-EI-AC (48 Ethernet 10/100/1000 ports, 4 10 Gig SFP+, AC 110/220 V)

Model	Product Description
S5720-52P-EI-AC	S5720-52P-EI-AC (48 Ethernet 10/100/1000 ports, 4 Gig SFP, AC 110/220 V)
S5720-56C-EI-48S-AC	S5720-56C-EI-48S-AC (48 Gig SFP, 4 10 Gig SFP+, with 1 interface slot, with 150 W AC power supply)
S5720-56C-EI-48S-DC	S5720-56C-EI-48S-DC (48 Gig SFP, 4 10 Gig SFP+, with 1 interface slot, with 150 W DC power supply)
S5720-56C-EI-AC	S5720-56C-EI-AC (48 Ethernet 10/100/1000 ports, 4 10 Gig SFP+, with 1 interface slot, with 150 W AC power supply)
S5720-56C-EI-DC	S5720-56C-EI-DC (48 Ethernet 10/100/1000 ports, 4 10 Gig SFP+, with 1 interface slot, with 150 W DC power supply)
S5720-56PC-EI-AC	S5720-56PC-EI-AC (48 Ethernet 10/100/1000 ports, 4 Gig SFP, with 1 interface slot, with 150 W AC power supply)
S5720-56C-PWR-EI-AC	S5720-56C-PWR-EI-AC (48 Ethernet 10/100/1000 PoE+ ports, 4 10 Gig SFP+, with 1 interface slot, with 500 W AC power supply)
S5720-56C-PWR-EI-AC1	S5720-56C-PWR-EI-AC1 (48 Ethernet 10/100/1000 PoE+ ports, 4 10 Gig SFP+, with 1 interface slot, with 1150 W AC power supply)
ES5D21X02S01	2-port 10GE SFP+ optical interface card
ES5D21VST000	2-port QSFP+ dedicated stack interface card
RPS1800	RPS1800 redundant power supply
FAN-028A-B	S5720-EI Fan box (F, FAN panel side intake)
ES0W2PSA0150	150 W AC Power Module
ES0W2PSD0150	150 W DC Power Module
PAC-500WA-BE	500 W AC PoE Power Module
PDC-650WA-BE	650 W DC PoE Power Module
W2PSA1150	1150 W AC PoE Power Module
PAC1000D5412	1000 W 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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