S5720S-LI Series Switches

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Product Overview

The S5720S-LI is a next-generation energy-saving gigabit Ethernet switch that provides flexible GE access ports and 10GE uplink ports. Building on next-generation, high-performance hardware and the Huawei Versatile Routing Platform (VRP), the S5720S-LI supports intelligent stack (iStack), flexible Ethernet networking, and diversified security control. It provides customers with a green, easy-to-manage, easy-to-expand, and cost-effective gigabit to the desktop solution. In addition, Huawei customizes specialized models to meet customer requirements to suit special scenarios.

The models with front power sockets can be installed in the 300 mm deep cabinet. They can be maintained through the front panel, saving space in small equipment rooms.

The models that use a fan-free design reduce power consumption and noise.

As part of Huawei's channel distribution products, the S5720S-LI is only sold in specific countries and regions*.

Product Appearance

S5720S-12TP-LI-AC

- 8 × Ethernet 10/100/1000Base-T ports, 4 × Gig SFP ports, 2 × combo 10/100/1000Base-T Ethernet ports
- AC power supply
- Forwarding performance: 27Mpps
- Switching Capacity: 336Gbit/s

S5720S-12TP-PWR-LI-AC

- 8 × Ethernet 10/100/1000Base-T ports, 4 × Gig SFP ports, 2 × combo 10/100/1000Base-T Ethernet ports
- AC power supply
- PoE+
- Forwarding performance: 27Mpps
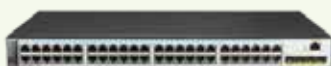- Switching Capacity: 336Gbit/s

S5720S-28P-LI-AC

- 24 × Ethernet 10/100/1000Base-T ports, 4 × Gig SFP ports
- AC power supply
- Forwarding performance: 51Mpps
- Switching Capacity: 336Gbit/s

S5720S-28P-PWR-LI-AC

- 24 × Ethernet 10/100/1000Base-T ports, 4 × Gig SFP ports
- AC power supply
- PoE+
- Forwarding performance: 51Mpps
- Switching Capacity: 336Gbit/s

S5720S-52P-LI-AC

- 48 × Ethernet 10/100/1000Base-T ports, 4 × Gig SFP ports
- AC power supply
- Forwarding performance: 87Mpps
- Switching Capacity: 336Gbit/s

S5720S-52P-PWR-LI-AC

- 48 × Ethernet 10/100/1000Base-T ports, 4 × Gig SFP ports
- AC power supply
- PoE+
- Forwarding performance: 87Mpps
- Switching Capacity: 336Gbit/s

S5720S-28X-LI-AC

- 24 × Ethernet 10/100/1000Base-T ports, 4 × 10 Gig SFP+ ports
- AC power supply
- Forwarding performance: 108Mpps
- Switching Capacity: 336Gbit/s

S5720S-28X-PWR-LI-AC

- 24 × Ethernet 10/100/1000Base-T ports, 4 × 10 Gig SFP+ ports
- AC power supply
- PoE+
- Forwarding performance: 108Mpps
- Switching Capacity: 336Gbit/s

S5720S-28X-LI-24S-AC

- 24 × Gig SFP ports, 8 × combo 10/100/1000Base-T Ethernet ports,4 × 10 Gig SFP+ ports
- AC power supply, supporting RPS (redundant power supply)
- Forwarding performance: 108Mpps
- Switching Capacity: 336Gbit/s

S5720S-52X-LI-AC

- 48 × Ethernet 10/100/1000Base-T ports, 4 × 10 Gig SFP+ ports
- AC power supply
- Forwarding performance: 144Mpps
- Switching Capacity: 336Gbit/s

S5720S-52X-PWR-LI-AC

- 48 × Ethernet 10/100/1000Base-T ports, 4 × 10 Gig SFP+ ports
- AC power supply
- PoE+
- Forwarding performance: 144Mpps
- Switching Capacity: 336Gbit/s

S5720S-28TP-PWR-LI-ACL

- 24 × Ethernet 10/100/1000Base-T ports, 4 × Gig SFP ports, 2 × combo 10/100/1000Base-T Ethernet ports
- AC power supply
- 8-port PoE+
- Forwarding performance: 51Mpps
- Switching Capacity: 336Gbit/s

Product Features and Highlights

Flexible Ethernet networking

- In addition to traditional Spanning Tree Protocol (STP), Rapid Spanning Tree Protocol (RSTP), and Multiple Spanning Tree Protocol (MSTP), the S5720S-LI 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, easy to maintain, and implements fast protection switching within 50ms. ERPS is defined in ITU-T G.8032. It implements millisecond-level protection switching based on traditional Ethernet MAC and bridging functions.

- The S5720S-LI supports Smart Link, which implements backup of uplinks. One S5720S-LI switch can connect to multiple aggregation switches through multiple links, significantly improving reliability of access devices.

- The S5720S-LI supports Ethernet OAM (IEEE 802.3ah/802.1ag) to fast-detect link faults.

Diversified security control

- The S5720S-LI supports 802.1x authentication, MAC address authentication, and combined authentication on a per port basis, as well as Portal authentication on a per VLANIF interface basis, and implements dynamic policy delivery (VLAN, QoS, and ACL) to users.

- The S5720S-LI provides a series of mechanisms to defend against DoS attacks 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 changing of the DHCP CHADDR value.

- The S5720S-LI collects and maintains information about access users, such as IP addresses, MAC addresses, IP address leases, VLAN IDs, and interface numbers in a DHCP snooping binding table. In this way, IP addresses and access interfaces of DHCP users can be tracked. You can specify DHCP snooping trusted and untrusted ports to ensure that users connect only to the authorized DHCP server.

- The S5720S-LI supports strict ARP learning. This feature prevents ARP spoofing attackers from exhausting ARP entries so that users can connect to the Internet normally.

Easy operation and maintenance

- The S5720S-LI supports Huawei 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, and also greatly reduces costs of operation and maintenance. The S5720S-LI can be managed and maintained using Simple Network Management Protocol (SNMP) V1, V2, and 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 that helps with network consolidation and reconstruction.

- EasyDeploy: The Commander collects information about the topology of the client connecting to the Commander and saves client startup information based on the topology. The client can be replaced without configuration. Configuration and scripts can be delivered to the client in batches. In addition, the configuration delivery result can be queried.The Commander can collect and display power consumption on the entire network.

- The S5720S-LI can use the GARP VLAN Registration Protocol (GVRP) to implement dynamic distribution, registration, and propagation of VLAN attributes. GVRP reduces manual configuration workload and ensures correct configuration. Additionally, the S5720S-LI supports MUX VLAN, which involves a principal VLAN and multiple subordinate VLANs. Subordinate VLANs are classified into group VLANs and separate VLANs. Ports in the principal VLAN can communicate with ports in subordinate VLANs. Ports in a subordinate group VLAN can communicate with each other, whereas ports in a subordinate separate VLAN can communicate only with ports in the principal VLAN. The S5720S-LI also supports VLAN Central Management Protocol (VCMP) and VLAN-Based Spanning Tree (VBST) protocol.

- The models with front power sockets can be installed in a 300 mm deep cabinet, and can be maintained through the front panel. This simplifies operation and maintenance. The cabinets can be placed against the wall or back to back, and is well-suited for shallow cabinets and limited equipment room space.

iStack

- The S5720S-LI supports intelligent stack (iStack). This technology combines multiple switches into a 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 high network scalability. You can increase ports, bandwidth, and processing capacity of a stack by simply adding member switches to the stack. iStack also simplifies device configuration and management. After a stack is set up, multiple physical switches are virtualized into one logical device. You can log in to any member switch in the stack to manage all the member switches in the stack. S5720S-LI support electrical ports stacking.

Excellent network traffic analysis

- The S5720S-LI supports the sFlow function. It uses a method defined in the sFlow standard to sample traffic passing through it and sends sampled traffic to the collector in real time. The collected traffic statistics are used to generate statistical reports, helping enterprises maintain their networks.

Product Specifications

Item	S5720S-12TP-LI-AC S5720S-12TP-PWR-LI-AC	S5720S-28P-LI-AC S5720S-28P-PWR-LI-AC S5720S-28X-LI-AC S5720S-28X-PWR-LI-AC	S5720S-28X-LI-24S-AC	S5720S-52P-LI-AC S5720S-52P-PWR-LI-AC S5720S-52X-LI-AC S5720S-52X-PWR-LI-AC	S5720S-28TP-PWR-LI-ACL
Fixed ports	8 × Ethernet 10/100/1000 ports, 4 × Gig SFP ports, 2 × combo 10/100/1000Base-T Ethernet ports	24 × Ethernet 10/100/1000 ports, P Series:4 × Gig SFP X Series: 4 × 10 Gig SFP+	24 × Gig SFP, 8 ×combo 10/100/1000Base-T Ethernet ports, 4 × 10 Gig SFP+	48 × Ethernet 10/100/1000 ports, P Series:4 × Gig SFP X Series: 4 × 10 Gig SFP+	24 × Ethernet 10/100/1000 ports, 4 × Gig SFP ports, 2 × combo 10/100/1000Base-T Ethernet ports
MAC address table	16K MAC address entries MAC address learning and aging Static, dynamic, and blackhole MAC address entries Packet filtering based on source MAC addresses Interface-based MAC learning limiting				
VLAN features	4K VLANs Guest VLAN and voice VLAN GVRP MUX VLAN VLAN assignment based on MAC addresses, protocols, IP subnets, policies, and interfaces 1:1 and N:1 VLAN mapping				
Jumbo frame	10K				
Ethernet loop protection	RRPP ring topology and RRPP multi-instance Smart Link tree topology and Smart Link multi-instance, providing millisecond-level protection switchover 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				
Reliability	VRRP,VRRP for BFD,VRRP6 EFM OAM (802.3ah) CFM OAM (802.1ag) ITU-Y.1731 DLDP LACP				
IP routing	Static route, RIP, RIPng, OSPF				
IPv6 features	Neighbor Discovery (ND) Path MTU (PMTU) IPv6 ping, IPv6 tracert, and IPv6 Telnet ACLs based on the source IPv6 address, destination IPv6 address, Layer 4 ports, and protocol type MLDv1/v2 snooping				

Item	S5720S-12TP-LI-AC S5720S-12TP-PWR-LI-AC	S5720S-28P-LI-AC S5720S-28P-PWR-LI-AC S5720S-28X-LI-AC S5720S-28X-PWR-LI-AC	S5720S-28X-LI-24S-AC	S5720S-52P-LI-AC S5720S-52P-PWR-LI-AC S5720S-52X-LI-AC S5720S-52X-PWR-LI-AC	S5720S-28TP-PWR-LI-ACL
Multicast	IGMPv1/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 Interface-based multicast traffic statistics				
QoS/ACL	Rate limiting on packets sent and received by an interface Packet redirection Interface-based traffic policing and two-rate and three-color CAR Eight queues on each interface WRR, DRR, SP, WRR+SP, and DRR+SP queue scheduling algorithms 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 interfaces				
Security	Hierarchical user management and password protection DoS attack defense, ARP attack defense, and ICMP attack defense Binding of the IP address, MAC address, interface 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 an interface AAA authentication, RADIUS authentication, HWTACACS+ authentication, and NAC SSH V2.0 Hypertext Transfer Protocol Secure (HTTPS) CPU defense Blacklist and whitelist DHCP relay, DHCP server, DHCP snooping DHCPv6 relay, DHCPv6 server, DHCPv6 snooping				
Lightning protection	Service interface: 7 kV				
Super Virtual Fabric (SVF)	Working as an SVF client that is plug-and-play with zero configuration Automatically loading the system software package and patches of clients One-click and automatic delivery of service configurations Supports independent running client				

Item	S5720S-12TP-LI-AC S5720S-12TP-PWR-LI-AC	S5720S-28P-LI-AC S5720S-28P-PWR-LI-AC S5720S-28X-LI-AC S5720S-28X-PWR-LI-AC	S5720S-28X-LI-24S-AC	S5720S-52P-LI-AC S5720S-52P-PWR-LI-AC S5720S-52X-LI-AC S5720S-52X-PWR-LI-AC	S5720S-28TP-PWR-LI-ACL
Management and maintenance	iStack Virtual Cable Test (VCT) Remote configuration and maintenance using Telnet SNMPv1/v2c/v3 RMON eSight and web-based NMS HTTPS LLDP/LLDP-MED System logs and multi-level alarms 802.3az EEE				
Interoperability	Supports VBST (Compatible with PVST/PVST+/RPVST) Supports LNP (Similar to DTP) Supports VCMP (Similar to VTP)				
Operating environment	Operating temperature: 0°C to 45°C Relative humidity: 5% to 95% (noncondensing)				
Input voltage	AC: Rated voltage range: 100 V to 240 V AC, 50~60 Hz Maximum voltage range: 90 V to 264 V AC, 47~63 Hz DC: Rated voltage range: −48 V to −60 V, DC Maximum voltage range: −36 V to −72 V, DC Note: Models supporting PoE do not use DC power supplies.				
Dimensions (W x D x H)	S5720S-12TP-LI-AC: 250mm x 180mm x 43.6mm S5720S-12TP-PWR-LI-AC: 320mm x 220mm x 43.6mm S5720S-28P-LI-AC/S5720S-52P-LI-AC/S5720S-28X-LI-AC/S5720S-28X-LI-24S-AC/S5720S-52X-LI-AC/S5720S-28TP-PWR-LI-ACL: 442mm x 220mm x 43.6mm S5720S-28P-PWR-LI-AC/S5720S-28X-PWR-LI-AC/S5720S-52P-PWR-LI-AC/ S5720S-52X-PWR-LI-AC: 442mm x 310mm x 43.6mm				
Power Consumption	S5720S-12TP-LI-AC: 12.85W S5720S-12TP-PWR-LI-AC: without PD: 15.61W; with PD: 160.5W (PoE: 123.2W) S5720S-28P-LI-AC: 20.2W S5720S-28P-PWR-LI-AC: without PD: 40.4W; with PD: 446.7W (PoE: 369.6W) S5720S-52P-LI-AC: 47.3W S5720S-52P-PWR-LI-AC: without PD: 61.7W; with PD: 461.8W (PoE: 369.6W) S5720S-28X-LI-AC: 29.5W S5720S-28X-PWR-LI-AC: without PD: 42.7W; with PD: 448.5W (PoE: 369.6W) S5720S-28X-LI-24S-AC: 41.7W S5720S-52X-LI-AC: 50.3W S5720S-52X-PWR-LI-AC: without PD: 63.5W; with PD: 464.3W (PoE: 369.6W) S5720S-28TP-PWR-LI-ACL: without PD: 24.4W; with PD: 165.528W (PoE: 123.2W)				
Heat dissipation	S5720S-12TP-LI-AC/ S5720S-12TP-PWR-LI-AC/ S5720S-28P-LI-AC/ S5720S-28TP-PWR-LI-ACL: Natural heat dissipation without fans Others: Heat dissipation with fan, intelligent fan speed adjustment				

Applications

The S5720S-LI provides 1000M desktop access functions for a high performance network, such as voice VLAN, NAC and so on.
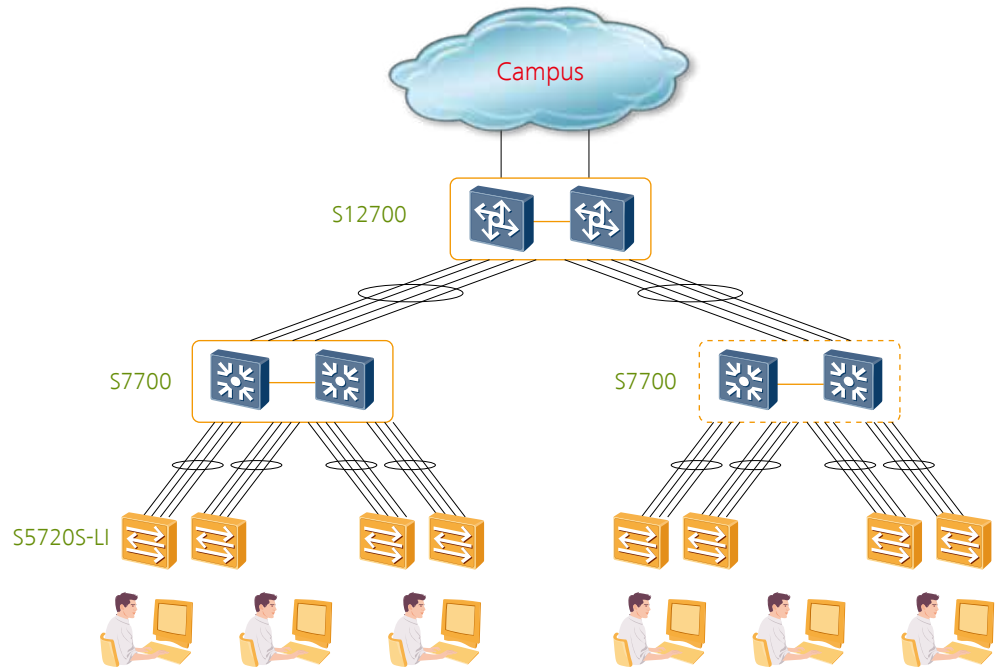
Product List

Product Description
S5720S-12TP-LI-AC (8 × Ethernet 10/100/1000 ports, 4 × Gig SFP ports, 2 × combo 10/100/1000Base-T Ethernet ports, AC power supply)
S5720S-12TP-PWR-LI-AC (8 × Ethernet 10/100/1000 ports, 4 × Gig SFP ports, 2 × combo 10/100/1000Base-T Ethernet ports, PoE+, AC power supply)
S5720S-28P-LI-AC (24 × Ethernet 10/100/1000 ports, 4 × Gig SFP, AC power supply)
S5720S-28P-PWR-LI-AC (24 × Ethernet 10/100/1000 ports, 4 × Gig SFP, PoE+, AC power supply)
S5720S-52P-LI-AC (48 × Ethernet 10/100/1000 ports, 4 × Gig SFP, AC power supply)
S5720S-52P-PWR-LI-AC (48 × Ethernet 10/100/1000 ports, 4 × Gig SFP, PoE+, AC power supply)
S5720S-28X-LI-AC (24 × Ethernet 10/100/1000 ports, 4 × 10 Gig SFP+, AC power supply)
S5720S-28X-PWR-LI-AC (24 × Ethernet 10/100/1000 ports, 4 × 10 Gig SFP+, PoE+, AC power supply)
S5720S-28X-LI-24S-AC (24 × Gig SFP ports, 8 × combo 10/100/1000Base-T Ethernet ports, 4 × 10 Gig SFP+, AC power supply, front power sockets, front access)
S5720S-52X-LI-AC (48 × Ethernet 10/100/1000 ports, 4 × 10 Gig SFP+, AC power supply)
S5720S-52X-PWR-LI-AC (48 × Ethernet 10/100/1000 ports, 4 × 10 Gig SFP+, PoE+, AC power supply)
S5720S-28TP-PWR-LI-ACL (24 × Ethernet 10/100/1000Base-T ports, 4 × Gig SFP ports, 2 × combo 10/100/1000Base-T Ethernet ports, 8-port PoE+, AC power supply)
RPS1800 Redundant Power System

*Only sold in Russia, Switzerland, Hong Kong, Dubai, Turkey, Malaysia, Saudi Arabia, Singapore, Qatar, and New Zealand.

For more information, visit http://e.huawei.com/en or contact your local Huawei sales office.