H3C S5570S-EI Series High Performance Intelligent Ethernet Switch

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New H3C Technologies Co., Limited

Product Overview

H3C S5570S-EI is a new generation of high-performance, high-port density, high-security and easy-to-install intelligent managed Gigabit Ethernet switches developed by H3C using industry-leading ASIC technology, supporting IPv4/IPV6 dual-stack management and forwarding , supports static routing protocols and routing protocols such as RIP, OSPF, BGP, ISIS, etc., and supports rich management and security features.

H3C S5570S-EI products are mainly positioned at the access layer and aggregation layer of enterprises and campuses, meeting high-density Gigabit access, fixed 10 Gigabit uplink ports, supporting PoE+, and building high-performance end-to-end IP with other H3C products network solutions.

H3C S5570S-EI series Ethernet switch includes the following models:

- S5570S-28S-EI: 24x10/100/1000BASE-T Ethernet ports, 4x10G BASE-X SFP+ ports.
- S5570S-54S-EI: 48x10/100/1000BASE-T Ethernet ports, 6x10G BASE-X SFP+ ports.
- S5570S-54S-PWR-EI: 48x10/100/1000BASE-T Ethernet ports (PoE+), 6x10G BASE-X SFP+ ports.
- S5570S-28S-HPWR-EI: 24x10/100/1000BASE-T Ethernet ports (PoE+), 4x10G BASE-X SFP+ ports.
- S5570S-36F-EI: 24*100 /1000BASE-X SFP ports, 8*10/100/1000BASE-T ports, 4*10G / 1G BASE-X SFP+ ports
- S5570S-54F-EI: 48*100/1000 BASE-X SFP ports , 6*10G/1G BASE-X SFP+ ports

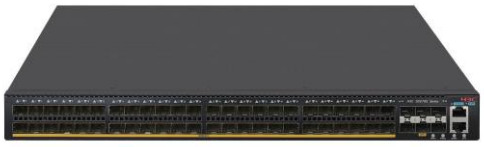
S5570S-28S-EI

S5170-28S-HPWR-EI

S5170-54S-EI

S5170-54S-PWR-EI

S5570S-36F-EI



S5570S-54F-EI

Features

SmartMC (Smart Management Center)

As the network scale increases, a large number of access devices are required at the network edge, which makes the management of these devices very cumbersome. The main purpose of SmartMC is to solve the problem of centralized management of a large number of scattered network devices. It is designed to

solve the switch-based operation and maintenance tasks of small enterprises. SmartMC realizes unified operation, maintenance and management of the network by means of built-in equipment and graphical operation.

SmartMC simplify the operation, maintenance and management of small and medium-sized parks:

- **Smart management:**

It mainly includes device role selection, FTP server configuration, global configuration and network management port configuration, etc.

- **Intelligent operation and maintenance:**

Mainly includes group management, equipment or group upgrade backup, monitoring and equipment failure replacement, etc.

- **Visualize:**

It mainly includes networking topology visualization and management, device list display, etc.

- **Smart business:**

Mainly includes user management, etc.: After network access users are created and successfully activated, these users can access the SmartMC network through the one-key-armed port.

The H3C S5570S-EI series switches can be used as the management device of SmartMC. You can log in to the SmartMC network through the S5570S - EI to manage the entire network in a unified manner.

visualization ability

H3C S5570S -EI series switches support Telemetry technology, which can upload real-time resource information and alarm information of the switch to the operation and maintenance platform through the GRPC protocol. Risk warning, architecture optimization and other functions accurately guarantee user experience.

High-performance IPv4/IPv6 service capabilities

H3C S5570S-EI series switches implement a hardware-based IPv4/IPv6 dual-stack platform, support a variety of tunnel technologies, rich IPv4 and IPv6 Layer 3 routing protocols, multicast technologies and policy routing mechanisms, providing users with complete IPv4 /IPv6 solution.

IRF2 (Second Generation Intelligent Resilience Architecture)

H3C S5570S-EI series switches support IRF2 (Second Generation Intelligent Resilient Architecture) technology, which is to connect multiple physical devices to each other, making it virtual as a logical device, that is, users can connect these multiple devices Treat it as a single device for management and use. IRF can bring the following benefits to users:

- **Simplified management** IRF architecture is formed, you can connect to any port of any device to log in to a unified logical device and manage the entire intelligent elastic system and all member devices in the system through the configuration of a single device. Physically connect to each member device to configure and manage them individually.
- **Simplified service** IRF are also run as a single device. For example, the routing protocol will be calculated as a single device. With the application of the cross-device link aggregation technology, it can replace the original generation tree protocol, which saves the interaction of a large number of protocol packets between devices, simplifies network operation, and shortens the convergence time when the network is turbulent.
- **Elastic expansion** IRF can realize elastic expansion according to user needs and ensure user investment. And new devices can be "hot-swapped" when they join or leave the IRF architecture, without affecting the normal operation of other devices.
- **High reliability of high reliability** IRF is reflected in three aspects: link, equipment and protocol. The physical ports between member devices support the aggregation function, and the physical connection between the IRF system and the upper and lower-layer devices also supports the aggregation function,

which improves the reliability of the link through multi-link backup; the IRF system consists of multiple member devices. Once the master device fails, the system will quickly and automatically elect a new master to ensure uninterrupted services through the system, thus realizing device-level 1:N backup; the IRF system will have a real-time protocol hot backup function responsible for the configuration information of the protocol. Backup to all other member devices to achieve 1:N protocol reliability.

- **High performance** For high-end switches, the increase in performance and port density is limited by the hardware structure. The performance and port density of an IRF system is the sum of the performance and port numbers of all devices inside the IRF. Therefore, the IRF technology can easily expand the switching capability of the device and the density of user ports several times, thereby greatly improving the performance of the device.

Complete security control strategy

H3C S5570S-EI series switches support the EAD (terminal access control) function, and cooperate with the background system to integrate terminal security measures such as terminal antivirus and patch repair with network security measures such as network access control and access authority control into a linked security Through the inspection, isolation, repair, management and monitoring of network access terminals, the entire network can be transformed from passive defense to active defense, single-point defense to comprehensive defense, and decentralized management to centralized policy management, improving the network’ s ability to deal with viruses. , worms and other emerging security threats overall defense capabilities.

H 3CS5570S-EI series switches support centralized MAC address authentication, 802.1x authentication , PORTAL authentication , support dynamic or static binding of user identification elements such as user account, IP, MAC, VLAN, port, etc. o Dynamic distribution of S , ACL); support to cooperate with H 3Ccompany's iMC system to conduct real-time management of online users, timely diagnose and disintegrate illegal network behaviors.

H3C The S5570S-EI series switches provide enhanced ACL control logic, support large-capacity ingress and egress port ACLs, and support VLAN-based ACL delivery, which simplifies the user configuration process and avoids waste of ACL resources. In addition, the S5570S-EI series will also support unicast reverse path finding technology (uRPF) . The route between the source addresses formulated in the , that is, to verify its authenticity, if it does not exist, delete the data packet, so that we can effectively prevent the increasingly flooded source address spoofing in the network.

Multiple reliability protection

The S5570S-EI series switches have multiple reliability protections at the device level and link level. The S5570S -EI series switches support the reliability design of pluggable AC and DC dual power modules , and can flexibly configure AC or DC power modules according to the needs of the actual environment. In addition, the whole machine also supports power supply and fan fault detection and alarms. These designs enable the equipment to have higher reliability.

In addition to device-level reliability, the product also supports a wealth of link-level reliability technologies, including LACP/STP/RSTP/MSTP/Smart Link / RRPP fast ring network protection mechanisms and other protection protocols, and supports IRF2 intelligent elastic architecture. Supports 1: N redundancy backup, supports ring stacking, and supports cross-device link aggregation, which greatly improves network reliability. When the network carries multiple services and large traffic, it does not affect the network convergence time, ensuring the normal operation of services. carry out

It supports basic network protection mechanism functions, and supports various types of protection, such as ARP protection. When the ARP rate exceeds the attack waterline, users who have attack behaviors are isolated.

Rich QoS policies

H3C S5570S-EI series switches support L2 (Layer 2)~L4 (Layer 4) packet filtering function, provide based on source MAC address, destination MAC address, source IP address, destination IP address, TCP/UDP port number , protocol type, and VLAN traffic classification. Provides a flexible queue scheduling algorithm, which can be set based on ports and queues at the same time, and supports SP (Strict Priority), WRR (Weighted Round Robin), and SP+WRR modes. Supports the CAR (Committed Access Rate) function with a minimum granularity of 16 Kbps. Supports port mirroring in both outbound and inbound directions, which is used to monitor the packets on the specified port, and copy the data packets on the port to the monitoring port for network detection and troubleshooting.

Excellent manageability

H3C S5570S-EI series switches support a wealth of management interfaces, such as Console port, out-of-band network management port, support SNMPv1/v2/v3 (Simple Network Management Protocol) , and support general network management platforms such as Open View and iMC intelligent management center . Support CLI command line, TELNET, make device management more convenient, and support SSH2.0 and other encryption methods, making management more secure.
H 3CS55 7 0S-EI series switches support SPAN/RSPAN mirroring and multiple mirroring observation ports and can analyze network traffic to take corresponding management and maintenance measures, making the originally invisible network service application traffic clear at a glance, and can provide users with Various network flow analysis reports help users optimize network structure and adjust resource deployment in time.

AD-Campus Solutions

The H3C application-driven campus network solution (AD-Campus) innovatively introduces a cloud-native architecture, which not only realizes the unified entry of network control, orchestration, and management, but also realizes the integration of campus, data center and WAN scenarios. The Seer Analyzer brings intelligent operation and maintenance capabilities to the campus network through refined data collection, big data, and AI analysis. H 3C S5570S-EI series switches support the access role in the AD-Campus solution.

Professional lightning protection function

H3C S5570S-EI series switches use professional built-in lightning protection technology and support the industry-leading 10KV service port lightning protection capability, which greatly reduces the damage rate of lightning strikes to equipment even in harsh working environments.

green technology

H3C S5570S-EI series switches use the latest energy-saving chips and innovative architecture design solutions to achieve the lowest power consumption of gigabit switches, bringing users green, environmentally friendly and energy-saving new network access products and reducing user maintenance costs.

At the same time, H3C S5570S-EI series switches adopt various green energy-saving designs, including auto-power-down (port automatic energy-saving). If the interface status is always down for a period of time , the system will automatically stop power supply to the interface and automatically enter the energy-saving mode. ;Support EEE energy-saving function, if the port is idle for a period of time, the system will set the port to the energy-saving mode, and when there is a packet to be sent and received, it will wake up the port to resume services through the monitoring code stream sent regularly to achieve the effect of energy saving. Meet the EU RoHS standard for material environmental protection and safety.

Hardware Specifications

Model	**S5570S-28S-EI**	**S5570S-54S-EI**	**S5570S-28S-HPWR-EI**	**S5570S-54S-PWR-EI**	**S5570S-36F-EI**	**S5570S-54 F- EI**
Port switch capacity(bps)	128G	216G	128G	216G	144G	216G
Packet forwarding rate	95.24Mpps	160.71Mpps	95.24Mpps	160.71Mpps	107.14Mpps	160.71Mpps
Service port description	24*10 /100/1000Base-T adaptive Ethernet ports, 4 10G SFP+ ports	48*10 /100/1000Base-T adaptive Ethernet ports, 6 10G SFP+ ports	24*10 /100/1000Base-T adaptive Ethernet ports, 4 10G SFP+ ports	48*10 /100/1000Base-T adaptive Ethernet ports, 6 10G SFP+ ports	24*100 /1000BASE-X SFP ports, 8 10 /100/1000Base-T ports, 4 10G SFP+ ports	48*100 /1000BASE-X SFP ports , 6 10G SFP+ ports
PoE	/	/	Y	Y	/	/
Dimensions (W ×D×H, unit: mm)	440× 360×43.6		440× 460×43.6		440× 360×43.6	
weight	≤5.6kg	≤6.0kg	≤5.5kg	≤6.0kg	≤4.5KG	≤4.5KG
management port	1 console port					
Input voltage	AC • Rated voltage range: 100V ~ 240V AC , 50/60Hz • Maximum voltage range: 90V ~ 264V AC , 47 ~ 63Hz DC • Rated voltage range: -48V ~ -60V DC • Maximum voltage range: -36V ~ -72V DC					
Power consumption (static)	Single AC: 16W Single DC: 22W Dual AC: 18W Dual DC: 27W	Single AC: 18W Single DC: 23W Dual AC: 23W Dual DC: 29W	Single AC: 42W Single DC: 39W Dual AC: 50W Dual DC: 55W	Single AC: 47W Single DC: 46W Dual AC: 62W Dual DC: 64W	Single AC: 29W Single DC: 30W Dual AC: 35W Dual DC: 35W	Single AC: 36W Single DC: 38W Dual AC: 43W Dual DC: 43W
Power consumption (at full load)	Single AC: 37W Single DC: 41W Dual AC: 39W Dual DC: 45W	Single AC: 55W Single DC: 56W Dual AC: 57W Dual DC: 61W	Single AC: 870W (PoE is 810W) Single DC: 630W (490W for PoE) Dual AC: 867W (PoE is 810W) Dual DC: 873W (PoE is 810W)	Single AC: 1290W (PoE is 1040W) Single DC: 650W (490W for PoE) Dual AC: 1700W (1600W for PoE) Dual DC: 1342W	Single AC: 52W Single DC: 54W Dual AC: 58W Dual DC: 60W	Single AC: 77W Single DC: 77W Dual AC: 80W Dual DC: 84W
Fan	2	2	2	2	3	3
Working temperature	-5℃～45℃					
Relative humidity of working environment (non-condensing)	5%～95%					

Software Specifications

Feature	S5570S-EI switch series
Port aggregation	GE/10GE port aggregation Dynamic aggregation Static aggregation Cross-device aggregation
Port Characteristics	Support IEEE802.3x flow control (full duplex) Supports storm suppression based on port rate percentage Supports PPS -based storm suppression Support bps -based storm suppression
IRF2	Distributed device management, distributed link aggregation, and distributed resilient routing Stacking through standard Ethernet interfaces Local device stacking and remote device stacking
Jumbo Frame	10000 bytes
MAC address table	32K MAC address entries Static MAC address Blackhole MAC address
VLAN	Port-based VLAN (up to 4094 VLANs) MAC-based VLAN Protocol-based VLAN QinQ and selective QinQ VLAN mapping Voice VLAN GVRP
DHCP	DHCP Client DHCP Snooping DHCP Snooping option82 DHCP Relay DHCP Server DHCP auto-config
IP routing	6K IPv4 routing table Static routing RIPv1/v2 and RIPng OSPFv1/v2 and OSPFv3
Multicast	IGMP Snooping V2/V3 MLD Snooping Multicast VLAN
Layer 2 ring network protocol	STP/RSTP/MSTP/PVST Smart Link RRPP G.8032 ERPS (Ethernet Ring Protection Switching)
ACL	Packet filtering at Layer 2 through layer 4 Traffic classification based on source MAC addresses, destination MAC addresses, source IPv4/IPv6 addresses, Time range-based ACL VLAN-based ACL Bidirectional ACL

Feature	S5570S-EI switch series
QoS	Port rate limit (receiving and transmitting) Packet redirection Committed access rate (CAR) Eight output queues on each port Flexible queue scheduling algorithms based on ports and queues, including SP, WRR and SP+WRR 802.1p DSCP remarking
Mirroring	Port mirroring RSPAN
Security	Hierarchical user management and password protection AAA authentication support RADIUS authentication HWTACACS SSH2.0 Port isolation 802.1X authentication, centralized MAC authentication Port security IP Source Guard HTTPs EAD Support BPDU guard , Root guard
IEEE	IEEE 802.3x IEEE 802.3u, IEEE 802.3z, IEEE 802.3az, IEEE 802.3ab, IEEE 802.3ah IEEE 802.3ad IEEE 802.3af IEEE 802.3at IEEE 802.3bt IEEE 802.3bz IEEE 802.1p IEEE 802.1x IEEE 802.1q IEEE 802.1d IEEE 802.1w IEEE 802.1s IEEE 802.1ax IEEE 802.1ag
Management and maintenance	Loading and upgrading through XModem/FTP/TFTP Configuration through CLI, Telnet, and console port SNMPv1/v2/v3 and Web-based NMS Remote monitoring (RMON) alarm, event, and history recording IMC NMS System log, alarming based on severities, and output of debugging information NTP Ping, Tracert Virtual cable test (VCT) Device link detection protocol (DLDP) Loopback-detection

Feature	S5570S-EI switch series
EMC	FCC Part 15 Subpart B CLASS A ICES-003 CLASS A VCCI-CISPR 32 CLASS A EN 55032 CLASS AS/NZS CISPR32 CLASS A CISPR 24 EN 55024 EN 61000-3-2 EN 61000-3-3 ETSI EN 300 386 GB/T 9254 YD/T 993
Safety	CAN/CSA C22.2 No 60950-1 IEC 60950-1 EN 60950-1 AS/NZS 60950-1 FDA 21 CFR Subchapter J GB 4943.1

Ordering Information

Product ID	Product Description
LS-5570S-28S-EI-GL	H3C S5570S-28S-EI L3 Ethernet Switch with 24*10/100/1000BASE-T Ports and 4*1G/10G BASE-X SFP Plus Ports, Without Power Supplies
LS-5570S-54S-EI-GL	H3C S5570S-54S-EI L3 Ethernet Switch with 48*10/100/1000BASE-T Ports and 6*1G/10G BASE-X SFP Plus Ports, Without Power Supplies
LS-5570S-36F-EI-GL	H3C S5570S-36F-EI L3 Ethernet Switch with 24*1000BASE-X SFP Ports, 8*10/100/1000BASE-T Ports and 4*1G/10G BASE-X SFP Plus Ports, Without Power Supplies
LS-5570S-54F-EI-GL	H3C S5570S-54F-EI L3 Ethernet Switch with 48*1000BASE-X SFP Ports and 6*1G/10G BASE-X SFP Plus Ports, Without Power Supplies
LS-5570S-28S-HPWR-EI-A-GL	H3C S5570S-28S-HPWR-EI-A L3 Ethernet Switch with 24*10/100/1000BASE-T Ports and 4*1G/10G BASE-X SFP Plus Ports, Without Power Supplies, POE+
LS-5570S-54S-PWR-EI-A-GL	H3C S5570S-54S-PWR-EI-A L3 Ethernet Switch with 48*10/100/1000BASE-T Ports and 6*1G/10G BASE-X SFP Plus Ports, Without Power Supplies, POE+
Power	
CA-70A12	Pluggable 70W AC Power Supply
PSR75-12A-GL	75W AC Pluggable Power Module
PSR150-D1-GL	150W Asset-manageable DC Power Module
PSR360-56A-GL	360W PoE AC Power Supply Module
PSR720-56A-GL	720W PoE AC Power Supply Module
PSR1110-56A-GL	1110W PoE AC Power Supply Module
PSR560-56D	560W DC Pluggable Power Module
Transceivers	
SFP-GE-T	1000BASE-T SFP
SFP-GE-SX-MM850-A	1000BASE-SX SFP Transceiver, Multi-Mode (850nm, 550m, LC)
SFP-GE-LX-SM1310-A	1000BASE-LX SFP Transceiver, Single Mode (1310nm, 10km, LC)
SFP-GE-LH40-SM1310	1000BASE-LH40 SFP Transceiver, Single Mode (1310nm, 40km, LC)
SFP-GE-LH40-SM1550	1000BASE-LH40 SFP Transceiver, Single Mode (1550nm, 40km, LC)

SFP-GE-LH80-SM1550	1000BASE-LH80 SFP Transceiver, Single Mode (1550nm, 80km, LC)
SFP-GE-LH100-SM1550	1000BASE-LH100 SFP Transceiver, Single Mode (1550nm, 100km, LC)
SFP-XG-LX-SM1310-E	SFP+ Module(1310nm,10km,LC)
SFP-XG-SX-MM850-E	SFP+ Module(850nm,300m,LC)
Cable	
LSWM1STK	SFP+ Cable 0.65m
LSWM2STK	SFP+ Cable 1.2m
LSWM3STK	SFP+ Cable 3m
LSTM1STK	SFP+ Cable 5m

The Leader in Digital Solutions

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