



H3C S5590-EI Series Converged Hybrid MultiGiga Switches

Product overview

H3C S5590-EI series switches are a new generation of high-performance, high-port density, high-security Layer 3 Ethernet switches developed by H3C Technology Co., Ltd. (hereinafter referred to as H3C) using industry-leading ASIC technology, supporting IPv4/IPV6 Dual-stack management and forwarding, support static routing protocols and routing protocols such as RIP, OSPF, BGP, ISIS, etc., and support rich management and security features. It is a Gigabit Layer 3 Ethernet switch product for converged service networks.

In the campus network, H3C S5590-EI series switches can be used as aggregation layer equipment, or as the core of small and medium-sized enterprises; downward can provide high-density GE and MultiGiga ports, upward through 10G/25G/40G/100G fiber or link aggregation is aggregated to the core switch to build a high-performance end-to-end IP network solution together with other H3C products.

H3C S5590-EI series switches include the following models:

S5590-24UXM4YC-EI

16*10/100/1000Base-T Ports (PoE++), 8*10M/100M/1G/2.5G/5G/10G Base-T Ports (PoE++), 4*10G/25GBase-X SFP28 Ports, and 1 Slot.

S5590-48UXM4YC-EI

32*10/100/1000Base-T Ports (PoE++), 16*10M/100M/1G/2.5G/5G/10G Base-T Ports (PoE++), 4*10G/25GBase-X SFP28 Ports, and 1 Slot.

S5590-24UXMC-EI

24*100M/1G/2.5G/5G/10GBASE-T Ports (PoE++), and 1 Slot.

S5590-48UM4YC-EI

48*100M/1G/2.5G/5G/10G BASE-T PoE++ Ports, 4*25G SFP28 Ports, and 1*Slot, Without Power Supplies.

S5590-32UN4X4Y2CC-EI

32*100M/1G/2.5G BASE-T PoE++ Ports, 4*1G/10G BASE-X SFP Plus Ports, 4*10G/25G SFP28 Ports, 2*40G/100G QSFP28 Ports, and 1*Slot, Without Power Supplies.

S5590-48UN4Y2CC-EI

48*100M/1G/2.5G BASE-T PoE++ Ports, 4*10G/25G SFP28 Ports, 2*40G/100G QSFP28 Ports, and 1*Slot, Without Power Supplies.

S5590-8N24NS6X-EI

8*100M/1G/2.5G BASE-T Ports, 24*1G/2.5G BASE-X SFP Ports, and 6*1G/10G BASE-X SFP Plus Ports, Without Power Supplies

S5590-48NS6X-EI

48*1G/2.5G BASE-X SFP Ports and 6*1G/10G BASE-X SFP Plus Ports, Without Power Supplies

Views

	
S5590-24UXM4YC-EI	S5590-48UXM4YC-EI
	
S5590-24UXMC-EI	S5590-48UM4YC-EI
	
S5590-32UN4X4Y2CC-EI	S5590-48UN4Y2CC-EI

	
S5590-8N24NS6X-EI	S5590-48NS6X-EI

Features and highlights

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 campuses:

Smart management

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

Intelligent operation and maintenance

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

Visualization

Includes networking topology visualization and management, device list display, device ports 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 port of one- key arming.

H3C S5590-EI series switches can be used as the management device of SmartMC. You can log in to the SmartMC network through the S5590-EI to manage the entire network in a unified manner.

Multi-service integration

Based on H3C's Open Service Architecture (OAA), H3C S5590-EI series switches can not only provide the functions of

traditional switches, but also integrate security module cards including FW, IPS, and load balancing, mini-iMC cards, and Eagle Vision cards. etc., making the S5590-EI series switches a converged multi-service bearing platform.

High-performance IPv4/IPv6 service capability

H3C S5590-EI series switches implement a hardware-based IPv4/IPv6 dual-stack platform, support multiple 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 S5590-EI series switches support IRF2 (Second Generation Intelligent Resilient Architecture) technology, which is to connect multiple physical devices to each other to make it virtual as a logical device, that is to say, users can regard these multiple devices as one Manage and use a single device. IRF can bring the following benefits to users:

Simplified management

IRF architecture is formed, it can be connected to any port of any device to log in to a unified logical device. By configuring a single device, it can manage the entire intelligent elastic system and all member devices in the system. There is no need to 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

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

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 S5590-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 The system, through the inspection, isolation, repair, management and monitoring of network access terminals, makes the entire network change from passive defense to active defense, from single-point defense to comprehensive defense, and from decentralized management to centralized policy management. , worms and other emerging security threats overall defense capabilities.

H3C S5590-EI series switches support centralized MAC address authentication, 802.1x authentication, support dynamic or static binding of user identification elements such as user account, IP, MAC, VLAN, and port, and implement user policies (VLAN, QoS, ACL) dynamic distribution; support with H3C's iMC system for real-time management of online users, timely diagnosis and disintegration of illegal network behavior.

H3C S5590-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, H3C S5590-EI series switches will also support unicast reverse path finding technology (uRPF). The route between the interface and the source address specified in the packet is to verify its authenticity. If it does not exist, the packet is deleted, so that we can effectively prevent the source address spoofing that is increasingly flooding in the network.

MACsec hardware encryption

MACsec (Media Access Control Security, MAC security) defines the method of data security communication based on IEEE 802 local area network. MACsec can provide users with secure MAC layer data transmission and reception services, including user data encryption, data frame integrity check and data source authenticity verification.

MACsec is usually used in conjunction with the 802.1X authentication framework. After the 802.1X authentication process is successful, it identifies the message sent by the authenticated device and uses the MKA (MACsec Key Agreement, MACsec Key Agreement) protocol to negotiate the generated key pair Authenticated user data is encrypted and integrity checked to prevent the port from processing packets from unauthenticated devices or tampered with unauthenticated devices.

H3C S5590-EI series switches support upgraded MACsec encryption technology and use 256-bit encryption algorithm to further improve data security; All ports of the device provide 256-bit MACsec encryption to ensure data security.

Precision time protocol (PTP)

H3C S5590-EI series switches support the 1588V2 function to meet the high-precision time synchronization requirements between network devices. Compared with GPS time synchronization with the same precision, it improves security and lowers deployment costs.

Intelligent network quality analyzer (iNQA)

H3C S5590-EI series switches support iNQA. iNQA provides the following benefits:

True measurement results

iNQA measures the service packets directly to calculate packet loss results, thus reflecting the real network quality.

Wide application range

Applicable to Layer 2 network and Layer 3 IP network. iNQA supports the network-level and direct link measurement flexibly.

Fast fault location

iNQA obtains the packet loss time, packet loss location, and number of lost packets in real time.

Applicable to different applications

You can apply iNQA to multiple scenarios, such as point-to-point, point-to-multipoint, and multipoint-to-multipoint.

Multichassis link aggregation group (M-LAG) (original DRNI)

H3C S5590-EI series switches support M-LAG, which enables links of multiple switches to aggregate into one to implement device-level link backup. M-LAG is applicable to servers dual-homed to a pair of access devices for node redundancy.

Streamlined topology

M-LAG simplifies the network topology and spanning tree configuration by virtualizing two physical devices into one logical device.

Independent upgrading

The DR member devices can be upgraded independently one by one to minimize the impact on traffic forwarding.

High availability

The DR system uses a keepalive link to detect multi-active collision to ensure that only one member device forwards traffic after a DR system splits.

Visualization ability

H3C S5590-EI series switches support Telemetry technology, which can send the switch's real-time resource information and alarm information to the O&M platform through the gRPC protocol.

The platform can realize network quality backtracking, troubleshooting, risk early warning, architecture optimization and other functions to accurately guarantee user experience by analyzing real-time data.

AI-driven PoE

Fast PoE

Typically, PIs does not deliver power to PDs the moment the PSE is powered on but wait until the PSE completes startup. Fast PoE enables PIs to deliver power to PDs within few seconds after power is supplied to the PSE.

Perpetual PoE

Perpetual PoE continuously monitors the PD states and ensures continued power supply to PDs even when the PSE device is hot rebooting.

AI-driven PoE

Innovatively integrating AI technologies into PoE switches, H3C AI-driven PoE enables completely automated, intelligently managed, healed, and optimized PoE, bringing convenient and outstanding PoE experience to users.

Technical specifications

Hardware specifications

S5590-24UXM4YC-EI / S5590-48UXM4YC-EI

Item	S5590-24UXM4YC-EI	S5590-48UXM4YC-EI
Port switching capacity	792Gbps	984Gbps
Packet forwarding capacity	660Mpps	660Mpps
Switching capacity	2.4Tbps	
CPU	Dual Core, 1.2GHz	
SDRAM	2G	
Flash	8G	
Packet buffer	9M	
Dimensions (W×D×H)	440 × 400 × 44 mm	440 × 400 × 44 mm
Weight	≤ 9.5kg	≤ 9.5kg
Console port	1 RJ45	
Management Ethernet port	10/100/1000Base-T electrical port: 1 (Out of Band)	

Item	S5590-24UXM4YC-EI	S5590-48UXM4YC-EI
USB port	1	
10/100/1000BASE-T port (PoE++)	16	32
10M/100M/1G/2.5G/5G/10G Base-T ports (PoE++)	8	16
10G/25GBase-X SFP28	4	4
Latency (64byte LIFO)	GE: <5μs 10G/25G: <3μs 40G: <1.2μs	GE: <5μs 10G/25G: <3μs 40G: <1.2μs
Expansion card slot	1	
PoE	PoE++ support	
Power supply slots	1+1 hot swappable	
Fan trays	hot swappable	
Input voltage	AC: Rated input voltage range: 100 to 240V AC: 50/60Hz Max input voltage range: 90 VAC to 290 VAC @ 47 to 63 Hz	
Power consumption (static) Data collection standard: no load	Single AC: 56W Dual AC: 66W	Single AC: 63W Dual AC: 74W
Power consumption (with typical configuration) Data collection standard: fully configured with DAC cables or twisted pair cables, 30% loaded	Single AC: 82W Dual AC: 90W	Single AC: 110W Dual AC: 125W
Power consumption (fully configured) Data collection standard: fully configured with transceiver modules or twisted pair cables, 100% loaded, PoE full load power supply	Maximum Single AC: 1630W Dual AC: 2660W For more information, please check the hardware information in support website.	Maximum Single AC: 1653W Dual AC: 3152W For more information, please check the hardware information in support website.
MTBF(Year)	72.5	68.97
MTTR(Hour)	1	1
Operating temperature	-5°C to 45°C (23°F to 113°F) From -60m to 5000m altitude: From 0m, the maximum operating temperature reduce by 0.33°C for every time 100 the altitude increases by 100m.	
Storage temperature	-40°C to 70°C (-40°F to 158°F)	
Relative operating humidity (non-condensing)	5 % to 95 %	

S5590-24UXMC-EI / S5590-48UM4YC-EI

Item	S5590-24UXMC-EI	S5590-48UM4YC-EI
Port switching capacity	880Gbps	1360Gbps
Packet forwarding capacity	660Mpps	1012Mpps

Item	S5590-24UXMC-EI	S5590-48UM4YC-EI
Switching capacity	2.4Tbps	
CPU	Dual Core, 1.2G	
SDRAM	2G	
Flash	8G	
Packet buffer	9M	
Dimensions (W×D×H)	440 × 400 × 44 mm	440 × 400 × 44 mm
Weight	≤ 7.5kg	≤ 8.2kg
Console port	1 RJ45 and 1 Type-C	
Management Ethernet port	10/100/1000Base-T electrical port: 1 (Out of Band)	
USB port	1	
10M/100M/1G/2.5G/5G/10G Base-T ports (PoE++)	24	48
10G/25GBase-X SFP28	-	4
Latency (64byte LIFO)	GE: <5μs 10G/25G: <3μs 40G/100G: <1.2μs	GE: <5μs 10G/25G: <3μs 40G: <1.2μs
Expansion card slot	1	
PoE	PoE++ support	
Power supply slots	1+1 hot swappable	
Fan trays	hot swappable	
Input voltage	AC: Rated input voltage range: 100 to 240V AC: 50/60Hz Max input voltage range: 90 VAC to 290 VAC @ 47 to 63 Hz DC Rated input voltage range: -48 V to -60 V Max input voltage range: -36 V to -72 V	
Power consumption (static) Data collection standard: no load	Single AC: 76W Dual AC: 86W Single DC: 74W Dual DC: 82W	Single AC: 123W Dual AC: 137W Single DC: 110W Dual DC: 117W
Power consumption (with typical configuration) Data collection standard: fully configured with DAC cables or twisted pair cables, 30% loaded	Single AC: 127W Dual AC: 144W Single DC: 121W Dual DC: 132W	Single AC: 246W Dual AC: 259W Single DC: 227W Dual DC: 239W
Power consumption (fully configured) Data collection standard: fully configured with transceiver modules or twisted pair cables, 100% loaded, PoE full load power supply	Maximum Single AC: 1654W Dual AC: 2705W Single DC: 1409W	Maximum Single AC: 1667W Dual AC: 3172W Single DC: 1358W

Item	S5590-24UXMC-EI	S5590-48UM4YC-EI
	Dual DC: 2700W For more information, please check the hardware information in support website.	Dual DC: 2644W For more information, please check the hardware information in support website.
MTBF(Year)	83.3	12
MTTR(Hour)	1	1
Operating temperature	-5°C to 45°C (23°F to 113°F) From -60m to 5000m altitude: From 0m, the maximum operating temperature reduce by 0.33°C for every time 100 the altitude increases by 100m.	
Storage temperature	-40°C to 70°C (-40°F to 158°F)	
Relative operating humidity (non-condensing)	5 % to 95 %	

S5590-32UN4X4Y2CC-EI / S5590-48UN4Y2CC-EI

Item	S5590-32UN4X4Y2CC-EI	S5590-48UN4Y2CC-EI
Port switching capacity	800Gbps	800Gbps
Packet forwarding capacity	600Mpps	600Mpps
Switching capacity	2.4Tbps	
CPU	Dual Core, 1.2GHz	
SDRAM	2G	
Flash	8G	
Packet buffer	9M	
Dimensions (W×D×H)	440 × 400 × 44 mm	440 × 400 × 44 mm
Weight	≤ 7.6kg	≤ 7.8kg
Console port	1 RJ45 and 1 Type-C	
Management Ethernet port	10/100/1000Base-T electrical port: 1 (Out of Band)	
USB port	1	
10M/100M/1G/2.5G Base-T ports (PoE++)	32	48
1G/10GBase-X SFP+	4	-
10G/25GBase-X SFP28	4	4
100G QSFP28	2	2
Latency (64byte LIFO)	GE: <5μs 10G/25G: <3μs 40G/100G: <1.2μs	GE: <5μs 10G/25G: <3μs 40G/100G: <1.2μs
Expansion card slot	1	
PoE	PoE++ support	
Power supply slots	1+1 hot swappable	

Item	S5590-32UN4X4Y2CC-EI	S5590-48UN4Y2CC-EI
Fan trays	hot swappable	
Input voltage	AC: Rated input voltage range: 100 to 240V AC: 50/60Hz Max input voltage range: 90 VAC to 290 VAC @ 47 to 63 Hz DC Rated input voltage range: -48 V to -60 V Max input voltage range: -36 V to -72 V	
Power consumption (static) Data collection standard: no load	Single AC: 62W Dual AC: 73W Single DC: 56W Dual DC: 62W	Single AC: 66W Dual AC: 70W Single DC: 59W Dual DC: 63W
Power consumption (with typical configuration) Data collection standard: fully configured with DAC cables or twisted pair cables, 30% loaded	Single AC: 91W Dual AC: 106W Single DC: 88W Dual DC: 93W	Single AC: 107W Dual AC: 116W Single DC: 99W Dual DC: 104W
Power consumption (fully configured) Data collection standard: fully configured with transceiver modules or twisted pair cables, 100% loaded	Maximum Single AC: 1654W Dual AC: 3159W Single DC: 1380W Dual DC: 2680W For more information, please check the hardware information in support website.	Maximum Single AC: 1682W Dual AC: 3202W Single DC: 1380W Dual DC: 2682W For more information, please check the hardware information in support website.
MTBF(Year)	110	97
MTTR(Hour)	1	1
Operating temperature	-5°C to 45°C (23°F to 113°F) From -60m to 5000m altitude: From 0m, the maximum operating temperature reduce by 0.33°C for every time 100 the altitude increases by 100m.	
Storage temperature	-40°C to 70°C (-40°F to 158°F)	
Relative operating humidity (non-condensing)	5 % to 95 %	

S5590-8N24NS6X-EI / S5590-48NS6X-EI

Item	S5590-8N24NS6X-EI	S5590-48NS6X-EI
Port switching capacity	280Gbps	360Gbps
Packet forwarding capacity	209Mpps	268Mpps
Switching capacity	2.4Tbps	
CPU	Dual Core, 1.2GHz	

Item	S5590-8N24NS6X-EI	S5590-48NS6X-EI
SDRAM	2G	
Flash	8G	
Packet buffer	9M	
Dimensions (W×D×H)	440 × 400 × 44 mm	440 × 400 × 44 mm
Weight	≤ 6.4kg	≤ 6.2kg
Console port	1 RJ45 and 1 Type-C	
Management Ethernet port	10/100/1000Base-T electrical port: 1 (Out of Band)	
USB port	1	
10/100/1000/2.5G BASE-T port	8	-
1G/2.5G BASE-X SFP	24	48
10G Base-X SFP+	6	6
Latency (64byte LIFO)	GE/2.5G: <5μs 10GE: <3μs	GE/2.5G: <5μs 10GE: <3μs
Power supply slots	1+1 hot swappable	
Fan trays	hot swappable	
Input voltage	AC: Rated input voltage range: 100 to 240V AC: 50/60Hz Max input voltage range: 90 VAC to 290 VAC @ 47 to 63 Hz DC Rated input voltage range: -48 V to -60 V Max input voltage range: -36 V to -72 V	
Power consumption (static) Data collection standard: no load	Single AC: 36W Dual AC: 39W Single DC: 29W Dual DC: 34W	Single AC: 63W Dual AC: 66W Single DC: 45W Dual DC: 52W
Power consumption (with typical configuration) Data collection standard: fully configured with DAC cables or twisted pair cables, 30% loaded	Single AC: 45W Dual AC: 48W Single DC: 52W Dual DC: 57W	Single AC: 78W Dual AC: 81W Single DC: 81W Dual DC: 87W
Power consumption (fully configured) Data collection standard: fully configured with transceiver modules or twisted pair cables, 100% loaded	Single AC: 69W Dual AC: 72W Single DC: 81W Dual DC: 87W	Single AC: 100W Dual AC: 102W Single DC: 119W Dual DC: 123W
MTBF(Year)	33	42
MTTR(Hour)	1	1
Operating temperature	-5°C to 45°C (23°F to 113°F) From -60m to 5000m altitude: From 0m, the maximum operating temperature reduce by 0.33°C for	

Item	S5590-8N24NS6X-EI	S5590-48NS6X-EI
	every time 100 the altitude increases by 100m.	
Storage temperature	-40°C to 70°C (-40°F to 158°F)	
Relative operating humidity (non-condensing)	5 % to 95 %	

- Note: This content is applicable only to regions outside mainland China. H3C reserves the right to interpret the content.

Software specifications

Item	S5590-EI series switches
Ethernet configuration	Cross-device link aggregation Static aggregation Dynamic aggregation AutoMDIX LRM (Long Reach Multimode) (LSWM4SP8PM can support LRM transceiver) Speed Auto/Manual Duplex Auto/Full/Half
Port characteristics	IEEE802.3x flow control (full duplex) Storm suppression based on port rate percentage PPS-based storm suppression bps-based storm suppression
MAC address table	Black hole MAC address Setting the maximum number of port MAC addresses to learn
VLAN	Access/Trunk/Hybrid VLAN Port-based VLAN support MAC-based VLAN IP subnet-based VLAN VLAN ID range 0 to 4095 (Total 4096, 0 and 4095 are reserved) Protocol-based VLAN IEEE 802.1P (CoS priority) Super VLAN Private VLAN Voice VLAN QinQ, flexible QinQ VLAN Mapping QinQ (802.1Q-in-802.1Q) Static/Dynamic/Blackhole/Multiport unicast MAC MAC automatic learning and aging

Item	S5590-EI series switches
	Port-based/VLAN-based MAC learning limit MAC filter Port isolation Port-based VLAN Protocol-based VLAN IEEE 802.3x flow control (full duplex) LLDP (Link Layer Discovery Protocol) and LLDP-MED (Link Layer Discovery Protocol Media Endpoint Discovery) Broadcast/multicast/unknown unicast storm constrain Jumbo frame Store-and-forward (Default)
Layer 2 ring network protocol	Loop detection (VLAN and VXLAN network) MVRP (Multiple VLAN Registration Protocol) GVRP (Generic VLAN Registration Protocol) PVST (Per-VLAN Spanning Tree) (compatible with PVST+/RPVST+) STP/RSTP/MSTP SmartLink RRPP ERPS (G.8032) Ethernet ring network protection switching BPDU/root/loop/TC-BPDU/PVST BPDU/disputeloopback guard BPDU filter Role/TC-BPDU transmission restriction Port single-pass detection, Edge Port
IRF2 intelligent resilience architecture	IRF2 Intelligent Resilience Architecture (fast convergence within 50ms) Distributed device management, distributed link aggregation, distributed elastic routing Stacking via standard Ethernet interfaces, etc. Local stacking and remote stacking
Automatic configuration	Server-based automatic configuration USB-based automatic configuration
Programmability and automation	Ansible Auto DevOps by using Python, NETCONF, TCL, and Restful APIs for automated network programming
Visualization	gRPC (Google remote procedure call) INT (Inband Telemetry) Flow group
OpenFlow	OpenFlow 1.3 Multiple controllers (EQUAL, master/slave)

Item	S5590-EI series switches
	Multiple tables flow Group table
IP services	Static/Dynamic/Gratuitous/proxy ARP ARP snooping/fast-reply/direct route advertisement/ping ARP attack detection ARP source suppression Ping, Tracert DHCP (Dynamic Host Configuration Protocol) DHCP Server/relay agent/client/snooping DHCP Option 43, Option 82, and Option 184, DNS (Domain Name System) DDNS (Dynamic Domain Name System) mDNS(Multicast Domain Name System) IRDP (ICMP Router Discovery Protocol) UDP helper ND (Neighbor Discovery) ND snooping/proxy/direct route advertisement/ping DHCPv6 Server/relay agent/client/snooping/guard GRE (Generic Routing Encapsulation) HTTP redirect GRE tunneling VXLAN tunneling and VXLAN-DCI tunneling IPv4/IPv6 over IPv4 tunneling, and IPv4/IPv6 over IPv6 tunneling IPv4/IPv6 Fast Forwarding
IP routing	Static routing RIPv1/v2, RIPv6 OSPFv1/v2, OSPFv3 BGP4, BGP4+ for IPv6 IS-IS, IS-IS V6 Equal-cost routing, policy routing VRRP/VRRPv3 OSPF multi-process, MD5 encryption authentication, S TUB/NSSA area Route COST setting, support inter-area route filtering
IPv6	IPv4/IPv6 dual stack protocol PMTU IPv6-Ping, IPv6-Tracert, IPv6-Telnet, IPv6-TFTP, IPv6 - ICMP, IPv6 -DNS, IPv6-FTP, IPv6-NTP

Item	S5590-EI series switches
	Manual tunnel, automatic tunnel IPv4 support over IPv6 tunnel 6to4 tunnel ISATAP tunnel GRE tunnel
Forwarding	Hardware-based (ASIC) Wire-speed/Line-rate architecture
Multicast	PIM-DM, PIM-SM, PIM-SSM, and Any-RP PIM snooping IGMPv1/IGMPv2/IGMPv3 IGMP proxying IGMP Snooping IGMP snooping proxying IGMP Filter and IGMP Fast leave IPv6 PIM-DM, PIM-SM, PIM-SSM, and Any-RP IPv6 PIM snooping MLDv1/MLDV2 MLD proxying MLD Snooping MLD snooping proxying Multicast routing and forwarding Multicast VLAN MVPN (Multicast VPN) Multicast policy and Multicast QoS MSDP, MSDP for IPv6 MBGP, MBGP for Ipv6
Mirror	Stream mirroring supported N:4 port mirroring Local and remote port mirroring ERSPAN
ACL\QoS	L2 (Layer 2) ~ L4 (Layer 4) packet filtering function, provide based on source MAC address, destination MAC address, source IP (IPv4/IPv6) address, destination IP (IPv4/IPv6) address, TCP/UDP port number, Traffic Classification for VLANs Time Range ACL Bidirectional ACL policies in inbound and outbound directions Issuing ACLs based on VLANs Limiting the rate at which the port receives packets and the rate at which it sends packets Message redirection

Item	S5590-EI series switches
	Diff-Serv QoS Eight queues each interface 802.1p, TOS, DSCP, and EXP priority mapping 802.1p and DSCP priority re-marking of packets CAR (Committed Access Rate) function Flexible queue scheduling algorithm, can be set based on port and queue at the same time, support SP, WFQ, SP+WFQ three modes Traffic shaping Time ranges Traffic classification based on source MAC, destination MAC, source IP, destination IP, port, protocol, and VLAN Congestion avoidance, Tail-Drop, RED (Random Early Detection) and WRED (Weighted Random Early Detection)
MPLS	Static LSP (label switched path) LDP (Label Distribution Protocol) IPv6 LDP Tunnel policies VRF (Virtual Routing and Forwarding) Support MPLS MCE MPLS support L3VPN MPLS support L2VPN MPLS Ping/Tracert MCE (Multi-VPN Instance Customer Edge) IPv6 MCE MPLS OAM
VXLAN	Support VXLAN Layer 2 and Layer 3 gateways Support VXLAN routing Centralized VXLAN gateway Distributed VXLAN gateway VXLAN M-LAG VXLAN-DCI OVSDB (Open vSwitch Database) VXLAN VTEP MP-BGP EVPN control plane EVPN VXLAN EVPN M-LAG
Safety features	RBAC (Role-based access control)

Item	S5590-EI series switches
	User hierarchical management and password protection 802.1X authentication / centralized MAC address authentication Portal authentication Guest VLAN AAA (Authentication, Authorization, and Accounting) RADIUS authentication HWTACACS certification(compatible with TACACS+) MAC authentication Web authentication Triple authentication SSH1.x and SSH2.0(Secure Shell) SSL (Secure Sockets Layer) HTTPs Port security EAD SAVI and SAVA to ensure the security of IPv6 environment DHCP Snooping to prevent spoofed DHCP server Dynamic ARP inspection to prevent man-in-the-middle attacks and ARP denial of service BPDU guard, Root guard uRPF (Unicast Reverse Path Detection) to prevent IP source address spoofing and prevent viruses and attacks IP/Port/MAC binding function Control Plane Protection (CoPP), Wireless Intrusion Prevention System (WIPS) Attack detection and prevention TCP attack prevention IPSG (IP source guard) IPv6 RA Guard ARP attack protection ND attack protection MFF (MAC-forced forwarding) SAVI (Source Address Validation Improvement) FIPS (Federal Information Processing Standards) MACsec (Media Access Control Security) All ports AES256 MACsec Microsegmentation Hierarchical user management and password protection Basic and advanced ACLs for packet filtering OSPF, RIPv2 message plaintext and MD5 ciphertext authentication

Item	S5590-EI series switches
	PKI (Public Key Infrastructure, public key infrastructure)
Network management	NQA (Network quality analyzer) iNQA (Intelligent Network Quality Analyzer) eMDI (Enhanced Media Delivery Index) Performance management through gRPC or NETCONF NTP (Network Time Protocol) Hot patch function, online patch upgrade XModem /FTP/TFTP loading and upgrading Command line interface (CLI), Telnet, Console port for configuration SNMPv1/v2/v3, RMON (Remote Monitoring) BFD support for VRRP/IS-IS/BGP/RIP/OSPF/Static Routing iMC intelligent management center Syslog, system log, hierarchical alarm, debug information output NTP support Power alarm function, fan, temperature alarm VCT (Virtual Cable Test) cable detection function DLDP (Device Link Detection Protocol) unidirectional link detection protocol Port mirroring SPAN (Switch Port Analyzer)/RSPAN (Remote SPAN) Flow mirroring sFlow Information center NETCONF/YANG (XML-based network management protocol) Python script management operation and maintenance Loopback-detection port loopback detection NetStream function, traffic analysis sampling ratio 1:1 Built-in Web GUI Secure boot
Energy saving	Port automatic power down function Port timing down function (Schedule job) EEE (802.3az) energy saving standard
EMC	ICES-003 CLASS A VCCI CLASS A CISPR 32 CLASS A EN 55032 CLASS A CISPR 35 AS/NZS CISPR 32

Item	S5590-EI series switches
	EN 55035 EN 61000-3-2 EN 61000-3-3 ETSI EN 300 386
Safety	CSA C22.2 No. 62368-1-14 IEC 62368-1 EN 62368-1 EN 60825-1 AS/NZS 62368-1 GB 4943.1
RoHS	EU RoHS2.0 Directive China RoHS 2.0

Performance specifications

Item	S5590-EI series switches
MAC address entries	max 320K
VLAN table	4K
VLAN interface	4093
IPv4 routing entries	max 80K
IPv4 ARP entries	65015
IPv4 ACL entries	IN: 3.25K EG: 0.75K
IPv4 multicast L2 entries	8K
IPv4 multicast L3 entries	4K
IPv6 unicast routing entries	32K
QOS forward queues	8
IPv6 ACL entries	Ingress: 1.625K Egress: 0.375
IPv6 ND entries	32K
IPv6 multicast L2 entries	8K
IPv6 multicast L3 entries	4K
Jumbo frame length	13312
MAX members in one link group	64
Link group number	256

Item	S5590-EI series switches
Max stacking members	9
Max stacking bandwidth	480Gbps

PoE power capacity

S5590-24UXM4YC-EI/ S5590-48UXM4YC-EI

Power supply 1	Power supply 2	S5590-24UXM4YC-EI		S5590-48UXM4YC-EI	
		Total PoE power capacity	PoE ports quantity	Total PoE power capacity	PoE ports quantity
PSR600-54A-B	/	400W	15.4W (802.3af): 24	400W	15.4W (802.3af): 25
			30W (802.3at): 13		30W (802.3at): 13
			60W (802.3bt): 6		60W (802.3bt): 6
			100W (802.3bt): 4		100W (802.3bt): 4
PSR920-54A-B	/	720W	15.4W (802.3af): 24	720W	15.4W (802.3af): 46
			30W (802.3at): 24		30W (802.3at): 24
			60W (802.3bt): 12		60W (802.3bt): 12
			100W (802.3bt): 7		100W (802.3bt): 7
PSR1600-54A-B (Input Voltage: 90V AC~176V AC)	/	720W	15.4W (802.3af): 24	720W	15.4W (802.3af): 46
			30W (802.3at): 24		30W (802.3at): 24
			60W (802.3bt): 12		60W (802.3bt): 12
			100W (802.3bt): 7		100W (802.3bt): 7
PSR1600-54A-B (Input Voltage: 176V AC~290V AC or 180V DC~320V DC)	/	1400W	15.4W (802.3af): 24	1400W	15.4W (802.3af): 48
			30W (802.3at): 24		30W (802.3at): 46
			60W (802.3bt): 23		60W (802.3bt): 23
			100W (802.3bt): 14		100W (802.3bt): 14
PSR600-54A-B	PSR600-54A-B	970W	15.4W (802.3af): 24	970W	15.4W (802.3af): 48
			30W (802.3at): 24		30W (802.3at): 32
			60W (802.3bt): 16		60W (802.3bt): 16
			100W (802.3bt): 9		100W (802.3bt): 9
PSR600-54A-B	PSR920-54A-B	970W	15.4W (802.3af): 24	970W	15.4W (802.3af): 48
			30W (802.3at): 24		30W (802.3at): 32
			60W (802.3bt): 16		60W (802.3bt): 16
			100W (802.3bt): 9		100W (802.3bt): 9
PSR920-54A-B	PSR920-54A-B	1550W	15.4W (802.3af): 24	1550W	15.4W (802.3af): 48

Power supply 1	Power supply 2	S5590-24UXM4YC-EI		S5590-48UXM4YC-EI	
		Total PoE power capacity	PoE ports quantity	Total PoE power capacity	PoE ports quantity
			30W (802.3at): 24		30W (802.3at): 48
			60W (802.3bt): 24		60W (802.3bt): 26
			100W (802.3bt): 15		100W (802.3bt): 17
PSR920-54A-B	PSR1600-54A-B (Input Voltage: 90V AC~176V AC)	1210W	15.4W (802.3af): 24	1210W	15.4W (802.3af): 48
			30W (802.3at): 24		30W (802.3at): 42
			60W (802.3bt): 21		60W (802.3bt): 21
			100W (802.3bt): 12		100W (802.3bt): 12
PSR920-54A-B	PSR1600-54A-B (Input Voltage: 176V AC~290V AC or 180V DC~320V DC)	1550W	15.4W (802.3af): 24	1550W	15.4W (802.3af): 48
			30W (802.3at): 24		30W (802.3at): 48
			60W (802.3bt): 24		60W (802.3bt): 25
			100W (802.3bt): 15		100W (802.3bt): 15
PSR1600-54A-B (Input Voltage: 90V AC~176V AC)	PSR1600-54A-B (Input Voltage: 90V AC~176V AC)	1600W	15.4W (802.3af): 24	1600W	15.4W (802.3af): 48
			30W (802.3at): 24		30W (802.3at): 48
			60W (802.3bt): 24		60W (802.3bt): 26
			100W (802.3bt): 16		100W (802.3bt): 16
PSR1600-54A-B (Input Voltage: 176V AC~290V AC or 180V DC~320V DC)	PSR1600-54A-B (Input Voltage: 176V AC~290V AC or 180V DC~320V DC)	2800W	15.4W (802.3af): 24	2800W	15.4W (802.3af): 48
			30W (802.3at): 24		30W (802.3at): 48
			60W (802.3bt): 24		60W (802.3bt): 46
			100W (802.3bt): 24		100W (802.3bt): 28

S5590-24UXMC-EI / S5590-48UM4YC-EI

Power supply 1	Power supply 2	S5590-24UXMC-EI		S5590-48UM4YC-EI	
		Total PoE power capacity	PoE ports quantity	Total PoE power capacity	PoE ports quantity
PSR600-54A-B	/	450W	15.4W (802.3af): 24	320W	15.4W (802.3af): 20
			30W (802.3at): 15		30W (802.3at): 10
			60W (802.3bt): 7		60W (802.3bt): 5
			100W (802.3bt): 4		100W (802.3bt): 3
PSR920-54A-B	/	770W	15.4W (802.3af): 24	640W	15.4W (802.3af): 41
			30W (802.3at): 24		30W (802.3at): 21
			60W (802.3bt): 12		60W (802.3bt): 10
			100W (802.3bt): 7		100W (802.3bt): 6

Power supply 1	Power supply 2	S5590-24UXMC-EI		S5590-48UM4YC-EI	
		Total PoE power capacity	PoE ports quantity	Total PoE power capacity	PoE ports quantity
PSR1300-54D-B	/	1150W	15.4W (802.3af): 24	1020W	15.4W (802.3af): 48
			30W (802.3at): 24		30W (802.3at): 34
			60W (802.3bt): 19		60W (802.3bt): 17
			100W (802.3bt): 11		100W (802.3bt): 10
PSR1600-54A-B (Input Voltage: 90V AC~176V AC)	/	770W	15.4W (802.3af): 24	640W	15.4W (802.3af): 41
			30W (802.3at): 24		30W (802.3at): 21
			60W (802.3bt): 12		60W (802.3bt): 10
			100W (802.3bt): 7		100W (802.3bt): 6
PSR1600-54A-B (Input Voltage: 176V AC~290V AC or 180V DC~320V DC)	/	1450W	15.4W (802.3af): 24	1320W	15.4W (802.3af): 48
			30W (802.3at): 24		30W (802.3at): 44
			60W (802.3bt): 24		60W (802.3bt): 22
			100W (802.3bt): 14		100W (802.3bt): 13
PSR600-54A-B	PSR600-54A-B	1020W	15.4W (802.3af): 24	890W	15.4W (802.3af): 48
			30W (802.3at): 24		30W (802.3at): 29
			60W (802.3bt): 17		60W (802.3bt): 14
			100W (802.3bt): 10		100W (802.3bt): 9
PSR600-54A-B	PSR920-54A-B	1020W	15.4W (802.3af): 24	890W	15.4W (802.3af): 48
			30W (802.3at): 24		30W (802.3at): 29
			60W (802.3bt): 17		60W (802.3bt): 14
			100W (802.3bt): 10		100W (802.3bt): 9
PSR600-54A-B	PSR1300-54D-B	1020W	15.4W (802.3af): 24	890W	15.4W (802.3af): 48
			30W (802.3at): 24		30W (802.3at): 29
			60W (802.3bt): 17		60W (802.3bt): 14
			100W (802.3bt): 10		100W (802.3bt): 9
PSR920-54A-B	PSR920-54A-B	1600W	15.4W (802.3af): 24	1470W	15.4W (802.3af): 48
			30W (802.3at): 24		30W (802.3at): 48
			60W (802.3bt): 24		60W (802.3bt): 24
			100W (802.3bt): 16		100W (802.3bt): 14
PSR920-54A-B	PSR1300-54D-B	1600W	15.4W (802.3af): 24	1470W	15.4W (802.3af): 48
			30W (802.3at): 24		30W (802.3at): 48
			60W (802.3bt): 24		60W (802.3bt): 24
			100W (802.3bt): 16		100W (802.3bt): 14
PSR920-54A-B	PSR1600-54A-B (Input	1260W	15.4W (802.3af): 24	1130W	15.4W (802.3af): 48

Power supply 1	Power supply 2	S5590-24UXMC-EI		S5590-48UM4YC-EI	
		Total PoE power capacity	PoE ports quantity	Total PoE power capacity	PoE ports quantity
	Voltage: 90V AC~176V AC)		30W (802.3at): 24 60W (802.3bt): 21 100W (802.3bt): 12		30W (802.3at): 37 60W (802.3bt): 18 100W (802.3bt): 11
PSR920-54A-B	PSR1600-54A-B (Input Voltage:176V AC~290V AC or 180V DC~320V DC)	1600W	15.4W (802.3af): 24 30W (802.3at): 24 60W (802.3bt): 24 100W (802.3bt): 16	1470W	15.4W (802.3af): 48 30W (802.3at): 48 60W (802.3bt): 24 100W (802.3bt): 14
PSR1600-54A-B (Input Voltage: 90V AC~176V AC)	PSR1600-54A-B (Input Voltage: 90V AC~176V AC)	1600W	15.4W (802.3af): 24 30W (802.3at): 24 60W (802.3bt): 24 100W (802.3bt): 16	1470W	15.4W (802.3af): 48 30W (802.3at): 48 60W (802.3bt): 24 100W (802.3bt): 14
PSR1300-54D-B	PSR1300-54D-B	2320W	15.4W (802.3af): 24 30W (802.3at): 24 60W (802.3bt): 24 100W (802.3bt): 23	2190W	15.4W (802.3af): 48 30W (802.3at): 48 60W (802.3bt): 36 100W (802.3bt): 21
PSR1300-54D-B	PSR1600-54A-B (Input Voltage: 90V AC~176V AC)	1480W	15.4W (802.3af): 24 30W (802.3at): 24 60W (802.3bt): 24 100W (802.3bt): 14	1350W	15.4W (802.3af): 48 30W (802.3at): 45 60W (802.3bt): 22 100W (802.3bt): 13
PSR1300-54D-B	PSR1600-54A-B (Input Voltage:176V AC~290V AC or 180V DC~320V DC)	2320W	15.4W (802.3af): 24 30W (802.3at): 24 60W (802.3bt): 24 100W (802.3bt): 23	2190W	15.4W (802.3af): 48 30W (802.3at): 48 60W (802.3bt): 36 100W (802.3bt): 21
PSR1600-54A-B (Input Voltage: 90V AC~176V AC)	PSR1600-54A-B (Input Voltage:176V AC~290V AC or 180V DC~320V DC)	1600W	15.4W (802.3af): 24 30W (802.3at): 24 60W (802.3bt): 24 100W (802.3bt): 16	1470W	15.4W (802.3af): 48 30W (802.3at): 48 60W (802.3bt): 24 100W (802.3bt): 14
PSR1600-54A-B (Input Voltage:176V AC~290V AC or 180V DC~320V DC)	PSR1600-54A-B (Input Voltage:176V AC~290V AC or 180V DC~320V DC)	2400W	15.4W (802.3af): 24 30W (802.3at): 24 60W (802.3bt): 24 100W (802.3bt): 24	2720W	15.4W (802.3af): 48 30W (802.3at): 48 60W (802.3bt): 45 100W (802.3bt): 27

S5590-32UN4X4Y2CC-EI / S5590-48UN4Y2CC-EI

Power supply 1	Power supply 2	S5590-32UN4X4Y2CC-EI		S5590-48UN4Y2CC-EI	
		Total PoE power capacity	PoE ports quantity	Total PoE power capacity	PoE ports quantity
PSR600-54A-B	/	470W	15.4W (802.3af): 30	460W	15.4W (802.3af): 29
			30W (802.3at): 15		30W (802.3at): 15
			60W (802.3bt): 7		60W (802.3bt): 7
			100W (802.3bt): 4		100W (802.3bt): 4
PSR920-54A-B	/	790W	15.4W (802.3af): 32	780W	15.4W (802.3af): 48
			30W (802.3at): 26		30W (802.3at): 26
			60W (802.3bt): 13		60W (802.3bt): 13
			100W (802.3bt): 7		100W (802.3bt): 7
PSR1300-54D-B	/	1170W	15.4W (802.3af): 32	1160W	15.4W (802.3af): 48
			30W (802.3at): 32		30W (802.3at): 38
			60W (802.3bt): 19		60W (802.3bt): 19
			100W (802.3bt): 11		100W (802.3bt): 11
PSR1600-54A-B (Input Voltage: 90V AC~176V AC)	/	790W	15.4W (802.3af): 32	780W	15.4W (802.3af): 48
			30W (802.3at): 26		30W (802.3at): 26
			60W (802.3bt): 13		60W (802.3bt): 13
			100W (802.3bt): 7		100W (802.3bt): 7
PSR1600-54A-B (Input Voltage: 176V AC~290V AC or 180V DC~320V DC)	/	1470W	15.4W (802.3af): 32	1460W	15.4W (802.3af): 48
			30W (802.3at): 32		30W (802.3at): 48
			60W (802.3bt): 24		60W (802.3bt): 24
			100W (802.3bt): 14		100W (802.3bt): 14
PSR600-54A-B	PSR600-54A-B	1040W	15.4W (802.3af): 32	1030W	15.4W (802.3af): 48
			30W (802.3at): 32		30W (802.3at): 34
			60W (802.3bt): 17		60W (802.3bt): 17
			100W (802.3bt): 10		100W (802.3bt): 10
PSR600-54A-B	PSR920-54A-B	1040W	15.4W (802.3af): 32	1030W	15.4W (802.3af): 48
			30W (802.3at): 32		30W (802.3at): 34
			60W (802.3bt): 17		60W (802.3bt): 17
			100W (802.3bt): 10		100W (802.3bt): 10
PSR600-54A-B	PSR1300-54D-B	1040W	15.4W (802.3af): 32	1030W	15.4W (802.3af): 48
			30W (802.3at): 32		30W (802.3at): 34
			60W (802.3bt): 17		60W (802.3bt): 17
			100W (802.3bt): 10		100W (802.3bt): 10

Power supply 1	Power supply 2	S5590-32UN4X4Y2CC-EI		S5590-48UN4Y2CC-EI	
		Total PoE power capacity	PoE ports quantity	Total PoE power capacity	PoE ports quantity
PSR920-54A-B	PSR920-54A-B	1040W	15.4W (802.3af): 32	1030W	15.4W (802.3af): 48
			30W (802.3at): 32		30W (802.3at): 34
			60W (802.3bt): 17		60W (802.3bt): 17
			100W (802.3bt): 10		100W (802.3bt): 10
PSR920-54A-B	PSR1300-54D-B	1620W	15.4W (802.3af): 32	1610W	15.4W (802.3af): 48
			30W (802.3at): 32		30W (802.3at): 48
			60W (802.3bt): 27		60W (802.3bt): 26
			100W (802.3bt): 16		100W (802.3bt): 16
PSR920-54A-B	PSR1600-54A-B (Input Voltage: 90V AC~176V AC)	1280W	15.4W (802.3af): 32	1270W	15.4W (802.3af): 48
			30W (802.3at): 32		30W (802.3at): 42
			60W (802.3bt): 21		60W (802.3bt): 21
			100W (802.3bt): 12		100W (802.3bt): 12
PSR920-54A-B	PSR1600-54A-B (Input Voltage: 176V AC~290V AC or 180V DC~320V DC)	1620W	15.4W (802.3af): 32	1610W	15.4W (802.3af): 48
			30W (802.3at): 32		30W (802.3at): 48
			60W (802.3bt): 27		60W (802.3bt): 26
			100W (802.3bt): 16		100W (802.3bt): 16
PSR1600-54A-B (Input Voltage: 90V AC~176V AC)	PSR1600-54A-B (Input Voltage: 90V AC~176V AC)	1620W	15.4W (802.3af): 32	1610W	15.4W (802.3af): 48
			30W (802.3at): 32		30W (802.3at): 48
			60W (802.3bt): 27		60W (802.3bt): 26
			100W (802.3bt): 16		100W (802.3bt): 16
PSR1300-54D-B	PSR1300-54D-B	2340W	15.4W (802.3af): 32	2330W	15.4W (802.3af): 48
			30W (802.3at): 32		30W (802.3at): 48
			60W (802.3bt): 32		60W (802.3bt): 38
			100W (802.3bt): 23		100W (802.3bt): 23
PSR1300-54D-B	PSR1600-54A-B (Input Voltage: 90V AC~176V AC)	1500W	15.4W (802.3af): 32	1490W	15.4W (802.3af): 48
			30W (802.3at): 32		30W (802.3at): 48
			60W (802.3bt): 25		60W (802.3bt): 24
			100W (802.3bt): 15		100W (802.3bt): 14
PSR1300-54D-B	PSR1600-54A-B (Input Voltage: 176V AC~290V AC or 180V DC~320V DC)	2340W	15.4W (802.3af): 32	2330W	15.4W (802.3af): 48
			30W (802.3at): 32		30W (802.3at): 48
			60W (802.3bt): 32		60W (802.3bt): 38
			100W (802.3bt): 23		100W (802.3bt): 23
PSR1600-54A-B (Input	PSR1600-54A-B (Input	1620W	15.4W (802.3af): 32	1610W	15.4W (802.3af): 48

Power supply 1	Power supply 2	S5590-32UN4X4Y2CC-EI		S5590-48UN4Y2CC-EI	
		Total PoE power capacity	PoE ports quantity	Total PoE power capacity	PoE ports quantity
Voltage: 90V AC~176V AC)	Voltage:176V AC~290V AC or 180V DC~320V DC)		30W (802.3at): 32		30W (802.3at): 48
			60W (802.3bt): 27		60W (802.3bt): 26
			100W (802.3bt): 16		100W (802.3bt): 16
PSR1600-54A-B (Input Voltage:176V AC~290V AC or 180V DC~320V DC)	PSR1600-54A-B (Input Voltage:176V AC~290V AC or 180V DC~320V DC)	2870W	15.4W (802.3af): 32	2860W	15.4W (802.3af): 48
			30W (802.3at): 32		30W (802.3at): 48
			60W (802.3bt): 32		60W (802.3bt): 47
			100W (802.3bt): 28		100W (802.3bt): 28

Standards and protocols compliance

Organization	Standards and protocols
IEEE	IEEE 802.1D (STP) IEEE 802.1p (CoS) IEEE 802.1Q (VLANs) IEEE 802.1s (MSTP) IEEE 802.1w (RSTP) IEEE 802.1X (Security) IEEE 802.3ad (LACP) IEEE 802.3u (Fast Ethernet 100BASE-T/100BASE-TX) IEEE 802.3ab (1000BASE-T) IEEE 802.3x (Flow Control) IEEE 802.3z (1000BASE-SX, 1000BASE-LX)
RFC	RFC1771 (BGPv4) RFC1772 (Application of the BGP) RFC1965 (BGPv4 autonomous system confederations) RFC1997 (Communities attribute) RFC2385 (Transmission Control Protocol (TCP) MD5 authentication for BGP) RFC2439 (Route flap dampening) RFC2796 (Route reflection) RFC1657 (Definitions of Managed Objects for BGPv4) RFC2328 (OSPF v2) RFC1587 (OSPF NSSA) RFC2370 (OSPF opaque link-state advertisement (LSA) option)

Organization	Standards and protocols
	RFC1850 (OSPF v2 Management Information Base (MIB), traps) ISO10589 (IS-IS) RFC1195 (IS-IS) RFC2973 (IS-IS mesh groups) RFC1058 (RIP v1) RFC1723 (RIP v2) RFC2453 (RIP v2) RFC2083 (PNG (Portable Network Graphics) Specification Version) RFC791 (IP) RFC792 (ICMP) RFC793 (TCP) RFC768 (UDP) RFC826 (ARP) RFC783 (TFTP) RFC854 (Telnet) RFC894 (IP Over Ethernet) RFC950 (Internet Standard Subnetting Procedure) RFC959 (FTP) RFC1141 (Incremental updating of the Internet checksum) RFC1122 (Requirements for Internet Hosts -Communication Layers) RFC1256 (ICMP Router Discovery Messages) RFC1393 (Trace route Using an IP Option) RFC 1812 (IPv4) RFC 2338 (VRRP) RFC 2787 (Definitions of Managed Objects for VRRP) RFC 2474 (Diffserv) RFC 2131 (DHCP) RFC 2132 (DHCP and BOOTP Extension) RFC2280 (Routing Policy Specification Language (RPSL)) RFC1305 (NTPv3) RFC1157 (SNMP) RFC857 (Telnet Echo Option) RFC858 (Telnet Suppress Go Ahead Option) RFC1093 (NSFNET routing architecture) RFC 2138 (Radius Authentication) RFC 2139 (Radius Accounting)

Organization	Standards and protocols
	RFC1492 (TACACS) RFC 1518, 1519 (CIDR) RFC 2622 (Routing policy) RFC 2338 (VRRP) RFC 1112 (Host extensions for IP multicasting) RFC 2236 (Internet Group Management Protocol, Version 2) RFC 2715 (Interoperability Rules for Multicast Routing Protocols) RFC 2362 (PIM-SM) Draft (PIM-DM: draft-ietf-idmr-pim-dm-06) RFC 2283 (Multi-protocol Extensions for BGPv4) RFC 2267 (Network Ingress Filtering) RFC2474 (Definition of the Differentiated Services Field (DS Field) in the IPv4 and IPv6 Headers) RFC2475 (Architecture for Differentiated Service) RFC3168 (The Addition of Explicit Congestion Notification (ECN) to IP) RFC2702 (Requirements for Traffic Engineering Over MPLS) RFC3031 (Multi-protocol Label Switching Architecture) RFC3032 (MPLS Label Stack Encoding) RFC3033 (The Assignment of the Information Field and Protocol Identifier in the Q.2941 Generic Identifier and Q.2957 User-to-user Signaling for the Internet Protocol) RFC3036 (LDP Specification) RFC3037 (LDP Applicability) RFC2547 (BGP/MPLS VPN) RFC2764 (A Framework for IP Based Virtual Private Networks) RFC2796 (BGP Route Reflection - An Alternative to Full Mesh IBGP) RFC2842 (Capabilities Advertisement with BGPv4) RFC2858 (Multi-protocol Extensions for BGPv4) RFC2917 (A Core MPLS IP VPN Architecture) RFC2918 (Route Refresh Capability for BGPv4) RFC3107 (Carrying Label Information in BGPv4) Draft (Draft-martini-l2circuit-trans-mpls-08.txt) Draft (Draft-martini-l2circuit-encap-mpls-04.txt) Draft (Draft-kompella-ppvnp-l2vpn-01.txt) RFC2080 (RIPng for IPv6) RFC1981 (Path MTU Discovery for IP version 6) RFC2460 (Internet Protocol, Version 6 (IPv6) Specification) RFC2461 (Neighbor Discovery for IP Version 6 (IPv6)) RFC2462 (IPv6 Stateless Address Auto configuration)

Organization	Standards and protocols
	RFC2463 (Internet Control Message Protocol (ICMPv6) for the Internet Protocol Version 6 (IPv6) Specification) RFC2545 (BGP support IPv6) RFC2740 (OSPF for IPv6) RFC3513 (Internet Protocol Version 6 (IPv6) Addressing Architecture) RFC3596 (DNS Extensions to Support IP Version 6) Draft (Draft-ietf-isis-ipv6-04.txt) RFC 1493 (Bridge MIB) RFC 2674 (VLAN MIB Extension) RFC 1573 (Private IF MIB) RFC 1213 (MIB II) RFC 1724 (RIP Version 2 MIB Extension) RFC 1850 (OSPF Version 2 MIB Extension) RFC 2787 (VRRP MIB) RFC 2618 (RADIUS Authentication Client MIB) RFC 2620 (RADIUS Accounting Client MIB) RFC 1155 (Structure and Mgmt Information (SMIv1)) RFC 1157 (SNMPv1/v2c) RFC 1213, 1573 (MIB II) RFC 1901-1907 (SNMPv2c, SMIv2 and Revised MIB-II) RFC 2271 (FrameWork) RFC 2578-2580 (SMIv2) RFC 2819 (RMON) RFC 2668 (IEEE 802.3 MAU MIB) RFC 2665 (Pause control) RFC 2233 (Interfaces MIB) RFC2452 (MIB for TCP6) RFC2454 (MIB for UDP6) RFC2466 (MIB for ICMP6)
MIB	HH3C-FLASH-MAN-MIB HH3C-ISSU-MIB HH3C-SYS-MAN-MIB HH3C-UI-MAN-MIB RFC1213-MIB HH3C-CONFIG-MAN-MIB HH3C-LICENSE-MIB HH3C-INFOCENTER-MIB

Organization	Standards and protocols
	HH3C-LSW-DEV-ADM-MIB HH3C-LswDEVM-MIB HH3C-LswTRAP-MIB HH3C-POWER-ETH-EXT-MIB HH3C-RES-MON-MIB HH3C-TRANSCEIVER-INFO-MIB HH3C-TRAP-MIB POWER-ETHERNET-MIB SYSLOG-MSG-MIB ENTITY-MIB HH3C-COMMON-SYSTEM-MIB HH3C-ENTITY-EXT-MIB HH3C-ENTRELATION-MIB HH3C-LswINF-MIB HH3C-STORM-CONSTRAIN-MIB IF-MIB HH3C-IF-EXT-MIB HH3C-LswMAM-MIB HH3C-LswMSTP-MIB HH3C-LswVLAN-MIB HH3C-MAC-INFORMATION-MIB HH3C-MLAG-MIB HH3C-PROTOCOL-VLAN-MIB HH3C-PVST-MIB HH3C-QINQV2-MIB HH3C-SUBNET-VLAN-MIB HH3C-VMAP-MIB IEEE8023-LAG-MIB LLDP-EXT-DOT1-MIB LLDP-EXT-DOT1-V2-MIB LLDP-EXT-DOT3-MIB LLDP-EXT-DOT3-V2-MIB LLDP-EXT-MED-MIB LLDP-MIB LLDP-V2-MIB BRIDGE-MIB

Organization	Standards and protocols
	EtherLike-MIB HH3C-LAG-MIB HH3C-LLDP-EXT-MIB HH3C-LPBKDT-MIB HH3C-DNS-MIB HH3C-IP-ADDRESS-MIB HH3C-IPV6-ADDRESS-MIB IP-FORWARD-MIB IP-MIB IPV6-ICMP-MIB IPV6-MIB IPV6-TCP-MIB IPV6-UDP-MIB TCP-MIB UDP-MIB HH3C-ARP-RATELIMIT-MIB HH3C-DHCP4-MIB HH3C-DHCP-SNOOP2-MIB ISIS-MIB OSPF-MIB OSPF-TRAP-MIB OSPFV3-MIB RIPv2-MIB BGP4-MIB HH3C-IPRAN-DCN-MIB HH3C-MULTICAST-SNOOPING-MIB IGMP-STD-MIB IPMCAST-MIB IPV6-MLD-MIB MGMD-STD-MIB PIM-BSR-MIB PIM-STD-MIB HH3C-LswIGSP-MIB HH3C-MPM-MIB HH3C-VXLAN-MIB HH3C-BGP-EVPN-MIB

Organization	Standards and protocols
	HH3C-IFQOS2-MIB HH3C-QOS-CAPABILITY-MIB IEEE8021-CN-MIB HH3C-ACL-MIB HH3C-CBQOS2-MIB HH3C-TUNNEL-MIB HH3C-RADIUS-MIB HH3C-USER-MIB IEEE8021-PAE-MIB RADIUS-ACC-CLIENT-MIB RADIUS-AUTH-CLIENT-MIB HH3C-8021X-EXT2-MIB HH3C-DOMAIN-MIB HH3C-PORT-SECURITY-MIB HH3C-IKE-MONITOR-MIB HH3C-IPSEC-MONITOR-V2-MIB HH3C-SESSION-MIB HH3C-SSH-MIB HH3C-BFD-STD-MIB HH3C-DLDP2-MIB HH3C-RRPP-MIB HH3C-SMLK-MIB VRRP-MIB DOT3-OAM-MIB HH3C-MIRRORGROUP-MIB HH3C-NQA-MIB HH3C-NTP-MIB HH3C-RMON-EXT2-MIB RMON2-MIB RMON-MIB SFLOW-MIB StationSW-MIB DISMAN-EVENT-MIB DISMAN-PING-MIB DISMAN-TRACEROUTE-MIB
EMC	FCC Part 15 (CFR 47) Class A

Organization	Standards and protocols
	EN 55022 Class A ICES -003 Class A CISPR 22 Class A VCCI Class A AS/NZS 3548 Class A EN 55024 EN 61000-3-2 EN 61000-3-3 EN 61000-4-2 EN 61000-4-3 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 EN 61000-4-11 CISPR 24 Class A ETSI EN 300 386 V1.3.2:2003 IEC 61000-3-2 IEC 61000-3-3
Safety	EN 60950:2000 EN 60825-1:1993+A1:1997 and EN 60825-2:2000 UL 60950 3rd Edition CSA C22.2 No. 60950 3rd Edition IEC 60950: 1999 AS/NZS 3260

Ordering information

Item		Description
Product code	LS-5590-24UXM4YC-EI-GL	H3C S5590-24UXM4YC-EI L3 Ethernet Switch with 16*10/100/1000Base-T Ports(PoE++), 8*1G/2.5G/5G/10G Base-T Ports(PoE++), 4*10G/25GBase-X SFP28 Ports, and 1 Slot, Without Power Supplies
	LS-5590-48UXM4YC-EI-GL	H3C S5590-48UXM4YC-EI L3 Ethernet Switch with 32*10/100/1000Base-T Ports(PoE++), 16*1G/2.5G/5G/10G Base-T Ports(PoE++), 4*10G/25GBase-X SFP28 Ports, and 1 Slot, Without Power Supplies
	LS-5590-24UXMC-EI	H3C S5590-24UXMC-EI L3 Ethernet Switch with 24*100M/1G/2.5G/5G/10GBASE-T PoE++ Ports and 1*Slot, Without Power Supplies

Item		Description
	LS-5590-48UM4YC-EI-G1	H3C S5590-48UM4YC-EI L3 Ethernet Switch with 48*100M/1G/2.5G/5G/10G BASE-T PoE++ Ports, 4*25G SFP28 Ports, and 1*Slot, Without Power Supplies
	LS-5590-32UN4X4Y2CC-EI-G1	H3C S5590-32UN4X4Y2CC-EI L3 Ethernet Switch with 32*100M/1G/2.5G BASE-T PoE++ Ports, 4*1G/10G BASE-X SFP Plus Ports, 4*10G/25G SFP28 Ports, 2*40G/100G QSFP28 Ports, and 1*Slot, Without Power Supplies
	LS-5590-8N24NS6X-EI-G1	H3C S5590-8N24NS6X-EI L3 Ethernet Switch with 8*100M/1G/2.5G BASE-T Ports, 24*1G/2.5G BASE-X SFP Ports, and 6*1G/10G BASE-X SFP Plus Ports, Without Power Supplies
	LS-5590-48NS6X-EI-G1	H3C S5590-48NS6X-EI L3 Ethernet Switch with 48*1G/2.5G BASE-X SFP Ports and 6*1G/10G BASE-X SFP Plus Ports, Without Power Supplies
	LS-5590-48UN4Y2CC-EI-G1	H3C S5590-48UN4Y2CC-EI L3 Ethernet Switch with 48*100M/1G/2.5G BASE-T PoE++ Ports, 4*10G/25G SFP28 Ports, 2*40G/100G QSFP28 Ports, and 1*Slot, Without Power Supplies
Fan	LSPM1FANSB-SN	H3C Fan Module (Fan Panel Side Exhaust Airflow)
	LSPM1FANSA-SN	H3C Fan Module (Fan Panel Side Intake Airflow)
Power supply	PSR600-54A-B	H3C, PSR600-54A-B,600W/56V PoE Power Supply
	PSR920-54A-B	H3C, PSR920-54A-B,920W/56V PoE Power Supply
	PSR1600-54A-B	H3C, PSR1600-54A-B,1600W/56V PoE Power Supply
	PSR1300-54D-B-G	1300W PoE DC Power Supply Module (Power Panel Side Exhaust Airflow)
	PSR180-12A-B	180W Asset-Manageable AC Power Supply Module (Power Panel Side Exhaust Airflow)
	PSR180-12A-F	180W Asset-Manageable AC Power Supply Module (Power Panel Side Intake Airflow)
	PSR180-12D-B	180W Asset-Manageable DC Power Supply
Modules	LSWM2QP2P	2-Port 40G QSFP Plus Interface Module
	LSWM2QP2PB	2-Port 40GBASE Ethernet Optical Interface Module (QSFP+)
	LSWM2SP8P	8-Port 10G SFP Plus Interface Module
	LSWM2ZQP2P	2-Port 100G QSFP28 Interface Module
	LSWM2ZSP8P	8-Port 25G SFP28 Interface Module
	LSWM2SP2PB	2-Port 10G SFP Plus Interface Module
	LSWM2SP4PB	4-Port 10G SFP Plus Interface Module
	LSWM2ZSP4P	H3C 4 Ports 25G SFP28 Interface Module

- - For more information about transceiver please check 'Hardware Information and Specifications' in support website.

Datasheet history

Description	Location	Date
Renewed the 'Ordering Information'	Ordering Information	September, 2024
Update product images	Product Overview	May, 2025
Add new model 'S5590-24UXMC-EI'	Full document	November, 2025
Replace the datasheet with a new template	Full document	June, 2026
Add new models, "S5590-48UM4YC-EI, S5590-32UN4X4Y2QC-EI, S5590-48UN4Y2QC-EI, S5590-8N24NS6X-EI, S5590-48NS6X-EI"	Full document	July, 2026



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