

H3C S5130S-HI Series Advanced Gigabit Access Switches

Overview

H3C S5130S-HI Switch Series – A robust (modular dual power), cost-effective and easy to deploy Layer 3 access switching solution with POE+ that offers enhanced security and 10GbE uplinks, static route, RIP ,OSPF, SDN and IRF enabled, flexible management.

H3C S5130-HI series Ethernet switch includes the following models:

- S5130S-28S-HI: 24x10/100/1000BASE-T Ethernet ports(8 combo ports), 4x10G/1G BASE-X SFP+ ports; 2 power module slots;
- S5130S-52S-HI: 48x10/100/1000BASE-T Ethernet ports, 4x10G/1G BASE-X SFP+ ports; 2 power module slots;
- S5130S-28S-PWR-HI: 24x10/100/1000BASE-T Ethernet ports(4 combo ports), 4x10G/1G BASE-X SFP+ ports; 2 power module slots;
- S5130S-52S-PWR-HI: 48x10/100/1000BASE-T Ethernet ports, 4x10G/1G BASE-X SFP+ ports; 2 power module slots;



S5130S-28S-HI



S5130S-52S-HI



S5130S-28S-PWR-HI



S5130S-52S-PWR-HI

Features

High-performance IPv4/IPv6 service capabilities

- The S5130S-HI switch series comes with IPv4/IPv6 dual-stack platform which provides sophisticated IPv4/IPv6 solutions by supporting multiple tunnels, IPv4/IPv6 Layer 3 routing protocols, multicasting, and policy-based routing. The S5130S-HI switch is a mature commercial IPv6 product that has passed the IPv6 network access certification of the Chinese Ministry of Industry and Information Technology and the IPv6 Ready Phase II certification.

Intelligent Resilient Framework 2 (IRF2)

H3C S5130S-HI switch series is pre-built with Intelligent Resilient Framework 2 (IRF2). IRF2 provides the following benefits:

- High scalability: With IRF2, plug-n-play device aggregation can be achieved by adding one or more switches into the IRF2 stack and enabling IRF2 stacking on the new device. New devices can be managed with a single IP, and upgraded at the same time to reduce network expansion cost.
- High reliability: The IRF2 patented 1:N backup technology allows each slave device in the IRF2 stack to serve as the backup of the master, creating control and data link redundancy, as well as uninterrupted layer-3 forwarding. This improves the reliability, avoids unplanned business downtime and serves to improve overall performance. When the master device fails, traffic remains uninterrupted.
- Load balancing: IRF2 supports cross-device link aggregation, upstream and downstream can be connected to more than one physical link, which creates another layer of network redundancy and boosts the network resource utilization.
- Availability: H3C Implements IRF2 through standard Forty Gigabit Ethernet (40GE) or Ten Gigabit Ethernet (10GE) ports which allocates bandwidth for business and application access and reasonably splits local traffic and upstream traffic. IRF2 rules not only able to obeyed within and across the rack, but also across the LAN.

Intelligent Resilient Framework 3.1 (IRF 3.1)

Intelligent Resilient Framework 3.1 technology (IRF 3.1) is implemented based on IEEE 802.1BR. It integrates lower-layer devices (PEXs) such as access devices with a higher-layer IRF fabric (parent fabric) to provide high-density, low-cost connectivity at the access layer. You can manage and configure the PEXs from the parent fabric as if they were interface modules on the parent fabric.

IRF 3.1 brings the following benefits: Single point of management; Unified security policy; Simplified network topology; Simplified service deployments; Easy scalability and maintenance.

Software Defined Network (SDN)

- Software Defined Network (SDN) is an innovative network architecture that simplifies network management and reduces maintenance complexity by separating network control layer and network forwarding layer through Openflow. More importantly, it implements flexible network flow control and provides a well-defined network platform for core network application and innovation.
- The S5130S-HI switch series supports a large network flow table. Combined with H3C SDN controller, it can easily implement a two-layer network architecture and quickly add functions in existing network in order to drastically reduce network management complexity while substantially lowers network maintenance cost.

High availability

- The S5130S-HI switch series adopts hot swappable dual-power supply, which allows you to configure AC or DC power supplies as needed. The switch can detect faults in power supplies, and will if any such faults are found, respond with an alarm. It can automatically adjust fan speed according to the temperature.
- Apart from device level redundancy, the S5130S-HI series switch also provides diverse link redundancy support such as LACP/STP/RSTP/MSTP/Smart Link protocols. It supports IRF2 and 1: N redundancy backup as well as cross-device link aggregation which substantially increases network reliability.

Abundant QoS policies

The S5130S-HI switch series supports packet filtering at Layer 2 through Layer 4, and traffic classification based on source MAC addresses, destination MAC addresses, source IP addresses, destination IP addresses, TCP/UDP port

numbers, protocol types, and VLANs. It supports flexible queue scheduling algorithms based on ports and queues, including strict priority (SP), weighted round Robin (WRR) and SP+WRR. The S5130S-HI switch series enables committed access rate (CAR) with the minimum granularity of 8 kbps. It supports port mirroring in the outbound and inbound directions, to monitor the packets on the specific ports, and to mirror the packets to the monitor port for network detection and troubleshooting.

Comprehensive security control policies

- H3C S5130S-HI switch series supports innovative single-port multi-authentication function, the access authentication modes supported by different clients are different. For example, some clients can only perform MAC addresses Authentication (such as the printer terminal), and some user host for 802.1X authentication, and some user hosts only want to access through the Web portal authentication. In order to flexibly adapt to the multi-authentication requirements of the network environment, the S5130S-HI switch series support single-port multi-authentication unified deployment.
- The S5130S-HI switch series supports SSH V2 (Secure Shell V2) to secure information security, and strong authentication protect the Ethernet network switch from attacks such as IP address spoofing and clear text interception.
- ARP attack and ARP virus are major threats to LAN security, so the S5130S-HI switch series comes with diverse ARP protection functions such as ARP Detection to challenge the legitimacy of client, validate the ARP packets, and set a speed limit for ARP to prevent ARP swarm attacks from targeting CPU.
- H3C S5130S-HI switch series support EAD (End User Admission Defense) function. Once working with the iMC (intelligent Management Centre) system, EAD integrates terminal security policies, such as anti-virus and patch update, into network access control and access right control policies to form a cooperative security system. By checking, isolating, updating, managing, and monitoring access terminals, EAD changes passive, single point network protection to active, comprehensive network protection, and changes separate management to centralized management, enhancing the network capability for preventing viruses, worms, and new threats.

Professional Anti-lightning function

The S5130S-HI switch series uses built-in lightning protection technology and supports industry leading switch port 6KV anti-lightning capability, which can greatly reduce the rate of lightning damage to the equipment.

Enhanced PoE+ capability

H3C S5130S-HI switch series supports 802.3af/802.3at PoE function, provides multiple PoE modules for flexible PoE output selections, single switch can provide a total of 1680W PoE power, 30w per port and a total of 48 ports PoE+ function. A single port can provide a maximum of 30w of powered connected devices, such as IP phones, wireless APs, and high power cameras.

Excellent manageability

The H3C S5130S-HI series switch makes switch management with ease with the support of SNMPv1/v2/v3, which can be managed by NM platforms, such as Open View and iMC. with CLI and Telnet. And with SSH 2.0 encryption, switch management security is enhanced.

Smart Management Center (SmartMC)

SmartMC is H3C' s latest offering and innovation that helps small and middle size enterprise network to address management issue and is free of charge, easy to use web management tool. SmartMC is embedded network management tool into the switch, it includes commander switches and other access switches.

SmartMC delivers the following benefits:

- Intelligent operation: once the switch is powered on and SmartMC function is enabled, topology will be created automatically and user can go enhanced web GUI to check the latest status.
- Centralized management: all management can be achieved via commander switch such as centralized configuration backup, and software version management, increasing working efficiency.

One key device replacement: in case of one switch failure, the new added same type switch can download the same configuration and work as old switch immediately

Specifications

Feature	S5130S-28S-HI	S5130S-52S-HI	S5130S-28S-PWR-HI	S5130S-52S-PWR-HI
Switching capacity	128Gbps	176Gbps	128Gbps	176Gbps
Forwarding capacity	96Mpps	132Mpps	96Mpps	132Mpps
Dimensions (W × D × H)	440×360×43.6	440×360×43.6	440×460×43.6	440×460×43.6
Weight	≤6kg	≤6.5kg	≤8.5kg	≤9.5kg
Front panel data ports	24 10/100/1000BASE-T Ethernet ports, 8 1G SFP (Combo) ports, 4 10G/1G BASE-X SFP+ ports	48 10/100/1000BASE-T Ethernet ports, 4 10G/1G BASE-X SFP+ ports	24 10/100/1000BASE-T Ethernet ports, 4 1G SFP (Combo) ports, 4 10G/1G BASE-X SFP+ ports	48 10/100/1000BASE-T Ethernet ports, 4 10G/1G BASE-X SFP+ ports
Flash/SDRAM	256MB/512MB			
SDN/ Open flow	OpenFlow 1.3 Multiple controllers (EQUAL, master/slave) Multiple tables flow Group table Meter			
Port aggregation	GE/10GE port aggregation Dynamic aggregation			

Feature	S5130S-28S-HI	S5130S-52S-HI	S5130S-28S-PWR-HI	S5130S-52S-PWR-HI
	Static aggregation Cross-device aggregation			
Port features	IEEE802.3x flow control (full duplex) Storm control based on port rate percentage PPS/BPS-based storm control			
IRF2	Distributed device management, distributed link aggregation, and distributed resilient routing Stacking through standard Ethernet interfaces Local device stacking and remote device stacking			
VLAN	Port-based VLAN MAC-based VLAN Protocol-based VLAN QinQ and selective QinQ VLAN mapping Voice VLAN GVRP			
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			
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, WFQ and SP+WRR 802.1p DSCP remarking			
DHCP	DHCP Client DHCP Snooping DHCP Snooping option82 DHCP Relay DHCP Server DHCP auto-config			

Feature	S5130S-28S-HI	S5130S-52S-HI	S5130S-28S-PWR-HI	S5130S-52S-PWR-HI
IP routing	1K IPV4 routing entries Static routing RIPv1/v2 and RIPng OSPFv1/v2 and OSPFv3			
MAC address table	16K			
Multicast	IGMP Snooping /MLD Snooping Multicast VLAN			
Layer 2 ring network protocol	STP/RSTP/MSTP/PVST Smart Link RRPP			
OAM	802.1ag 802.3ah			
Mirroring	Port mirroring RSPAN Traffic mirroring			
Security	Hierarchical user management and password protection 802.1X authentication, centralized MAC authentication Guest VLAN RADIUS authentication SSH 2.0 Port isolation Port security MAC address learning limit IP Source guard Dynamic ARP inspection, preventing man-in-the-middle attacks and ARP DoS attacks IP/Port/MAC binding EAD			
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			

Feature	S5130S-28S-HI	S5130S-52S-HI	S5130S-28S-PWR-HI	S5130S-52S-PWR-HI
	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			
Green power	EEE (802.3az) Port auto Power down Port schedule down			
Power consumption (full configuration)	Single AC: 34W Single DC: 36W Dual AC: 39W Dual DC: 44W	Single AC: 52W Single DC: 53W Dual AC: 55W Dual DC: 57W	Single AC: Upto 898W (including 810W PoE) Dual AC : Upto 905W (including 810W PoE)	Single AC: Upto 1019W (including 900W PoE) Dual AC: Upto 1854W (including 1680W PoE)
Input voltage	Non PoE model input voltage: AC: Rated voltage range: 100V~240V AC, 50/60Hz DC: Maximum voltage range -48V~-60V DC PoE model input voltage: 360W AC: 100V~240V, 50Hz~60Hz 720W AC: 100V~240V, 50Hz~60Hz 1110W AC: 115V~240V, 50Hz~60Hz			
Operating temperature	0°C ~ 45°C			
Operating relative humidity (noncondensing)	5% ~ 95%			
EMC	FCC Part 15 Subpart B CLASS A ICES-003 CLASS A VCCI CLASS CISPR 32 CLASS A			

Feature	S5130S-28S-HI	S5130S-52S-HI	S5130S-28S-PWR-HI	S5130S-52S-PWR-HI
	EN 55032 CLASS A AS/NZS CISPR32 CLASS A CISPR 24 EN 55024 EN 61000-3-2 EN 61000-3-3 ETSI EN 300 386 for telecommunications center installations GB/T 9254 YD/T 993			
Safety	UL 60950-1 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-5130S-28S-HI-GL	H3C S5130S-28S-HI Ethernet Switch with 24*10/100/1000BASE-T Ports, 8*100/1000BASE-X SFP Combo Ports, and 4*1G/10G BASE-X SFP Plus Ports, dual power supply slots
LS-5130S-52S-HI-GL	H3C S5130S-52S-HI Ethernet Switch with 48*10/100/1000BASE-T Ports and 4*1G/10G BASE-X SFP Plus Ports, dual power supply slots
LS-5130S-28S-PWR-HI-GL	H3C S5130S-28S-PWR-HI Ethernet Switch with 24*10/100/1000BASE-T PoE+ Ports, 4*100/1000BASE-X SFP Combo Ports, and 4*1G/10G BASE-X SFP Plus Ports, dual power supply slots
LS-5130S-52S-PWR-HI-GL	H3C S5130S-52S-PWR-HI Ethernet Switch with 48 10/100/1000BASE-T PoE+ Ports and 4 1G/10G BASE-X SFP Plus Ports, dual power supply slots
Power supply	
PSR75-12A-GL	75W AC Pluggable Power Module
PSR150-A1-GL	150W Asset-manageable AC Power Module
PSR150-D1-GL	150W Asset-manageable DC Power Module

LS5M1560DC	560W DC Pluggable 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
Transceivers	
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-GE-LX-SM1310-BIDI	1000BASE-LX BIDI SFP Transceiver, Single Mode (TX1310/RX1490, 10km, LC)
SFP-GE-LX-SM1490-BIDI	1000BASE-LX BIDI SFP Transceiver, Single Mode (TX1490/RX1310, 10km, LC)
SFP-GE-T	1000BASE-T SFP
SFP-XG-LX-SM1310-E	SFP+ Module(1310nm,10km,LC)
SFP-XG-SX-MM850-E	SFP+ Module(850nm,300m,LC)
Cables	
CAB-CON-1.8m	Single Cable, Console Serial Port Cable,1.8m,D9F,28UL20276(4P)(P296U),MPH-8P8C
LSWM1STK	SFP+ Cable 0.65m
LSWM2STK	SFP+ Cable 1.2m
LSWM3STK	SFP+ Cable 3m
LSTM1STK	SFP+ Cable 5m



New H3C Technologies Co., Limited

Beijing base
8 GuangShun South Street, Chaoyang District, Beijing
Zip: 100102

Hangzhou base
466 Changhe Road, Binjiang District, Hangzhou, Zhejiang
Province 310052 P.R.China
Zip: 310052
Tel: +86-571-86760000
Fax: +86-571-86760001

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