H3C S6520X-SI Series Multi-Gigabit 10GE Switches

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New H3C Technologies Co., Limited

Product Overview

H3C S6520X-SI Series Switch—Industry-leading high performance and scalable 10GE access switching solution with modular dual power, fixed or modular uplinks (10GE/40GE) and IRF for resiliency. The series offers OSPF/BGP and multicast, SDN enabled and flexible management.

The S6520X-SI series switch contains the following models:

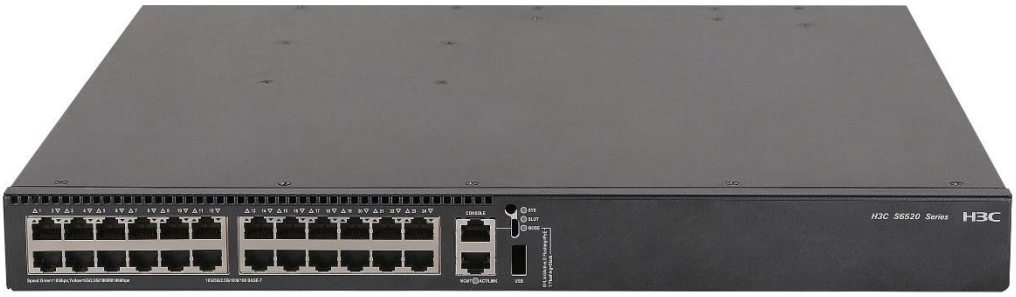
- **S6520X-18C-SI:** 16 × 1/10G SFP+ ports, 1 × expansion slot, 2 × power module slots
- **S6520X-26C–SI:** 24 × 1/10G SFP+ ports, 1 × expansion slot, 2 × power module slots
- **S6520X-26MC-SI:** 24×1G/2.5G/5GBase-T Ports, 1×expansion slot, 2×power module slots
- **S6520X-26MC-UPWR-SI:** 24×100M/1G/2.5G/5GBase-T UPoE Ports, 1×expansion slot, 2×power module slots
- **S6520X-26XC-UPWR-SI:** 24×100M/1G/2.5G/5G/10GBase-T UPoE Ports, 1×expansion Slot, 2×power module slots
- **S6520X-54XC-UPWR-SI:** 48×100M/1G/2.5G/5G/10GBase-T UPoE Ports, 4×QSFP Plus Ports, 1× expansion Slot, 2 × power module slots

S6520X-18C-SI

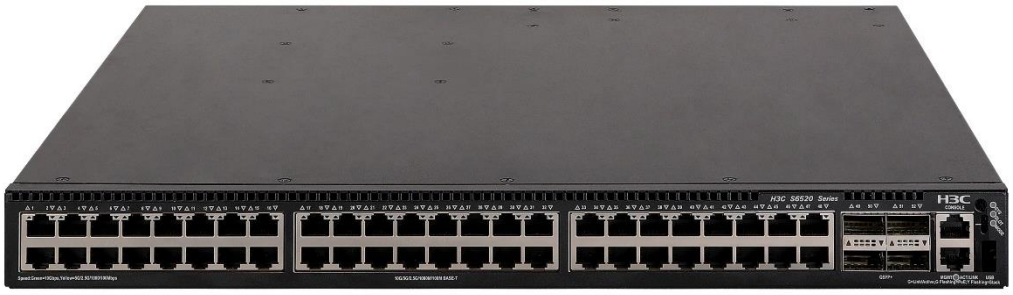
S6520X-26C-SI

S6520X-26MC-SI

S6520X-26MC-UPWR-SI



S6520X-26XC-UPWR-SI



S6520X-54XC-UPWR-SI

Features and Benefits

High-Density 10GE and Multi-Giga Forwarding

The switch offers high-density 10GE forwarding and can expand 10GE ports flexibly, working at wire-speed. It provides 16/24*10/1GE autosensing SFP+ ports, one expansion slot that support up to 10 kinds of modules range from GE to 10GE, 25GE, 40GE, and multi-giga ports. S6520X-26MC-UPWR-SI support 24 *1G/2.5G/5GBase-T (UPOE) ports, Max 90W PoE supported on these ports.

H3C Intelligent Resilient Framework 2 (IRF2)

H3C Intelligent Resilient Framework 2 (IRF 2) virtualizes multiple S6520X-SI switches into one virtual switch and provides the following benefits:

- **Scalability:** IRF 2 allows you to add devices to the IRF 2 system easily. It provides a single point of management, enables switch plug-and-play, and supports software auto-update for software synchronization from the master to the new member devices. It brings business agility with lower total cost of ownership by allowing new switches to be added to the fabric without network topology change as business grows.

- **High availability:** The H3C proprietary routing hot backup technology ensures redundancy and backup of all information on the control and data planes and non-stop Layer 3 data forwarding in an IRF 2 fabric. It also eliminates single point of failure and ensures service continuity.

- **Redundancy and load balancing:** The distributed link aggregation technology supports load sharing and mutual backup among multiple uplinks, which enhances the network redundancy and improves link resources usage.

- **Flexibility and resiliency:** The switch use standard GE ports instead of specialized ports for IRF links between IRF member devices. This allows customers to assign bandwidth as needed between uplink, downlink, and IRF system connections. In addition, an S6520X-SI IRF fabric can span a rack, multiple racks, or multiple campuses.

Wide Range of Advanced Features

The switch offers a wide range of features, including:

- **Modular hardware and software design:** The switch uses modular, hot swapping, and redundancy design for hardware, including power modules and fan trays. The switch also uses modular design for software, which enables feature installation and removal on an as-needed basis. Refined physical architecture and optimized software workflows greatly reduce the end-to-end packet processing delay.

- **Software-defined networking (SDN):** An innovative network architecture that separates the control plane from the forwarding plane, typically by using OpenFlow. SDN significantly simplifies network management, reduces maintenance complexities and costs, enables flexible traffic management, and offers a good platform for network and application innovations.

- **Virtual eXtensible LAN (VXLAN):** A MAC-in-UDP technology that provides Layer 2 connectivity between distant network sites across an IP network. VXLAN enables long-distance virtual machine and data mobility and is typically used in data centers and the access layer of campus networks for multitenant services. The H3C implementation of VXLAN supports automatic VXLAN tunnel establishment with EVPN.

- **Ethernet Virtual Private Network (EVPN):** A Layer 2 VPN technology that provides both Layer 2 and Layer 3 connectivity between distant network sites across an IP network. EVPN uses MP-BGP in the control plane and VXLAN in the data plane. EVPN provides the following benefits: Configuration automation; Separation of the control plane and the data plane; Integrated routing and bridging (IRB).

- **In-Service Software Upgrade (ISSU) and Operation, Administration, and Maintenance (OAM):** Ensure business continuity and improve Ethernet management and maintainability.

Comprehensive Security Control Policies

The switch supports AAA authentications (including RADIUS authentication) and dynamic or static binding of user identifiers such as user account, IP address, MAC address, VLAN, and port number.

Using the switch in conjunction with H3C IMC, you can manage and monitor online users in real time and take prompt action on illegitimate behaviors.

The User Profile allows to define a set of policies based on user group in different application scenario.

The switch offers a large number of inbound and outbound ACLs and VLAN-based ACL assignment. This simplifies configurations and saves ACL resources.

MACsec

MACsec is an ideal hop-by-hop link-layer security protocol for Ethernet networks, which are typically insecure. It provides the following services:

- **Data encryption:** Encrypts data over the Ethernet link to protect data against security issues such as eavesdropping.
- **Anti-replay:** Prevents packets from being intercepted and modified en route to protect the network against unauthorized access.
- **Tampering protection:** prevents packet tampering to protect data integrity.

MACsec supports the following deployments:

- **Client-oriented:** Protects data transmission over the link between the client and its access device.
- **Device-oriented mode:** Protects data transmission over the link between two peering devices.

The switch can cooperate with H3C iNode client and core switches such as S10500X and S7500X to provide a complete MACsec solution.

High Availability

In addition to node and link protection, the switch offers the following hardware high availability features:

- 1+1 power module redundancy and 1+1 fan tray redundancy.
- Hot-swappable interface modules.
- Automatic power and fan tray status monitoring and alarming mechanisms.
- Automatic fan speed adjustment based on the change in temperature.
- Self-protection mechanisms that protect power modules against overcurrent, overvoltage, and

overtemperature conditions.

Outstanding Management Capacity

The switch provides a variety of management features and is easy to manage. It offers the following device management features:

- Provides multiple management interfaces, including the console port, out-of-band management Ethernet port, and USB port.
- Supports configuration and management from CLI or H3C IMC Intelligent Management Center.
- Supports multiple access methods, including SNMPv1/v2c/v3, Telnet, and more secure SSH 2.0 and SSL.
- Uses OAM to enhance system management capability.
- Supports FTP for system upgrade.

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

Multi-chassis Link Aggregation Group (M-LAG) (Original DRNI)

H3C S6520X-SI 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.

Hardware Specifications

Item	S6520X-18C-SI	S6520X-26C-SI	S6520X-26MC-SI	S6520X-26MC-UPWR-SI	S6520X-26XC-UPWR-SI	S6520X-54XC-UPWR-SI
Port switching capacity	480Gbps	720Gbps	400Gbps	400Gbps	640Gbps	1440Gbps
Packet forwarding rate	357Mpps	536Mpps	240Mpps	240Mpps	240Mpps	600Mpps
Box switching capacity	1.44Tbps					
CPU	Dual-Core, 1.6GHz					
Flash/SDRAM	1GB/2GB					
Buffer	3M					
Dimensions (W×D×H)	440×360×43.6 mm	440×360×43.6 mm	440×360×43.6 mm	440×460×43.6 mm	440×460×43.6 mm	440×460×43.6 mm
Weight	≤4.1kg	≤4.2kg	≤ 6.4 kg	≤8.7kg	≤ 8.8 kg	≤ 10.0 kg
Service ports	16×1/10GE SFP+ fiber ports	24×1/10GE SFP+ fiber ports	24×100M/1G/2.5G/5GBase-T	24×100M/1G/2.5G/5GBase-T(UPOE)	24×100M/1G/2.5G/5G/10G Base-T(UPOE)	48×100M/1G/2.5G/5G/10G Base-T(UPOE) + 4×40G QSFP Plus
Console ports	1	1	1 (rear panel)			
Management Ethernet ports	1	1	1 (rear panel)			
USB ports	1	1	1 (rear panel)			
Expansion	1	1	1	1	1	1

Item	S6520X-18C-SI	S6520X-26C-SI	S6520X-26MC-SI	S6520X-26MC-UPWR-SI	S6520X-26XC-UPWR-SI	S6520X-54XC-UPWR-SI
slots						
Expansion modules	2-port 10G SFP+ with MACSec Interface Module 2-port 10G BASE-T with MACSec Interface Module 2-Port 10G SFP Plus Ethernet Optical Interface Module 8-Port 10G SFP+ with MACSec Interface Module 4-Port 10/100/1000BASE-T Ethernet,6-Port SFP (2-Port Combo) Interface Module 8-Port 1/2.5/5G BASE-T Ethernet Copper Interface Module 8-Port 1/2.5/5/10G BASE-T Ethernet Copper Interface Module 2-port 25GE SFP28 interface module 2-port 40GE QSFP+ interface module		2-port 10G SFP+ with MACSec Interface Module 2-port 10G BASE-T with MACSec Interface Module 2-Port 10G SFP Plus Ethernet Optical Interface Module 8-Port 10G SFP+ with MACSec Interface Module 4-Port 10/100/1000BASE-T Ethernet,6-Port SFP (2-Port Combo) Interface Module 8-Port 1/2.5/5G BASE-T Ethernet Copper Interface Module 8-Port 1/2.5/5/10G BASE-T Ethernet Copper Interface Module 2-port 25GE SFP28 interface module 2-port 40GE QSFP+ interface module			
Fan Trays	2	2	2	2	2	2
Power Supply slots	2	2	2	2	2	2
Idle power consumption	AC: 24W DC: 23W	AC: 25W DC: 23W	AC:32W DC:31W	AC: 45W DC: 46W	AC: 69W DC: 73W	AC: 100W DC: 85W
Max. power consumption	AC: 96W DC: 97W	AC: 110W DC: 113W	AC: 130W DC: 134W	AC: 2428W DC: 960W	AC: 2384W DC: 1047W	AC: 2333W DC: 1039W
Input voltage range	AC Rated: 100 VAC to 240 VAC @ 50 Hz/60 Hz DC: -48V~-60V					
Operating temperature	-5ºC to 45ºC (23°F to 113°F) -60m-5000m altitude: From 0m, the maximum operating temperature reduce by 0.33℃ for every time 100 the altitude increases by 100m.					
Storage temperature	-40℃ to 70℃(-40°F to 158°F)					
Operating &	5% RH to 95% RH, non-condensing					

Item	S6520X-18C-SI	S6520X-26C-SI	S6520X-26MC-SI	S6520X-26MC-UPWR-SI	S6520X-26XC-UPWR-SI	S6520X-54XC-UPWR-SI
storage humidity						
MTBF(Year)	58.7	58.1	83.6	83.6	58.1	58.1
MTTR(Hour)	1	1	1	1	1	1

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

Software specifications

Feature	S6520-SI switch series
VLAN	VLAN ID range 0 to 4095(Total 4096) Access/Trunk/Hybrid VLAN port-based VLAN MAC-based VLAN IP subnet-based VLAN protocol-based VLAN IEEE 802.1P(CoS priority) Super VLAN Private VLAN Voice VLAN QinQ(802.1Q-in-802.1Q) and flexible QinQ Vlan mapping Static/Dynamic/Blackhole/Multiport unicast MAC MAC automatic learning and aging port-based/VLAN-based MAC learning limit MAC filter Port isolation IEEE 802.3x flow control (full duplex) Storm suppression based on port rate percentage PPS-based storm suppression BPS-based storm suppression Loop detection(VLAN and VXLAN network) MVRP(Multiple VLAN Registration Protocol) GVRP(Generic VLAN Registration Protocol)

Feature	S6520-SI switch series
	STP(Spanning tree protocol) RSTP(Rapid Spanning Tree Protocol) MSTP(Multiple Spanning Tree Protocol) PVST(Per-VLAN Spanning Tree) (compatible with PVST+/RPVST+) BPDU/root/loop/TC-BPDU/PVST BPDU/disputeloopback guard BPDU filter Role/TC-BPDU transmission restriction LLDP(Link Layer Discovery Protocol) and LLDP-MED(Link Layer Discovery Protocol Media Endpoint Discovery) DCBX(Data Center Bridging Exchange Protocol) Broadcast/multicast/unknown unicast storm constrain Jumbo frame(maximum frame length supported is 13312) Store-and-forward(Default) Cut-through-forward
Ethernet link aggregation	Dtatic aggregation Dynamic aggregation S-MLAG(Simple multichassis link aggregation) 10GE/25G/40GE/100GE port aggregation LACP(Link Aggregation Control Protocol) M-LAG(Multichassis Link Aggregation)
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)

Feature	S6520-SI switch series
	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 Fowarding
Routing	Static routing, RIP, OSPF, IS-IS, and BGP
	IPv6 static routing, RIPng, OSPFv3, IS-ISv6, and BGP4+
	IPv4/IPv6 dual stack
	IPv4/IPv6 ECMP(Equal-cost multi-path routing)
	IPv4/IPv6 PBR(Policy-based routing)
	IPv4/IPv6 Routing policy
	Pingv6, Telnetv6, FTPv6, TFTPv6, DNSv6, ICMPv6
	Dual-stack PBR(policy-based routing)
Multicast	PIM-DM, PIM-SM, PIM-SSM, and Any-RP
	PIM snooping
	MSDP(Multicast Source Discovery Protocol)
	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

Feature	S6520-SI switch series
ACL/QoS	ACL(Access Control List) advanced ACL User-defined ACL Ingress and Egress ACL Ingress/Egress CAR Diff-Serv QoS Eight queues each interface 802.1P/DSCP Priority marking and remarking 802.1p, TOS, DSCP, and EXP priority mapping Flexible queue scheduling algorithms including SP, WRR, SP+WRR Traffic shaping Traffic redirecting Layer 2 to Layer 4 packet filtering 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) MPLS L2VPN MPLS L3VPN MPLS Ping/Tracert MCE(Multi-VPN Instance Customer Edge) IPv6 MCE MPLS OAM
Security	RBAC(Role-based access control) AAA(Authentication, Authorization, and Accounting) RADIUS(Remote Authentication Dial-In User Service) TACACS(Terminal Access Controller Access Control System) HWTACACS(HW Terminal Access Controller Access Control System) (Same authentication processes

Feature	S6520-SI switch series
	and implementations with TACACS+) User hierarchical management and password protection 802.1X authentication Portal authentication MAC authentication Web authentication Triple authentication Guest VLAN Port security IP/Port/MAC binding SSH1.x and SSH2.0(Secure Shell) SSL(Secure Sockets Layer) HTTPs Public Key Infrastructure (PKI) 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 uRPF(Unicast Reverse Path Forwarding) 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 EAD(Endpoint Admission Defense) Basic and advanced ACLs for packet filtering OSPF, RIPv2, BGPv4 plain text and MD5 authentication
High Availability	Ethernet OAM(IEEE 802.3ah) CFD(Connectivity Fault Detection)(IEEE 802.1ag and ITU-T Y.1731) DLDP(Device Link Detection Protocol)

Feature	S6520-SI switch series
	RRPP(Rapid Ring Protection Protocol) ERPS(G.8032 Ethernet Ring Protection Switching) Smart Link Monitor Link VRRPv2(Virtual Router Redundancy Protocol) VRRPv3 BFD(Bidirectional forwarding detection) Hardware BFD BFD for VRRP/BGP/IS-IS/OSPF/RSVP/static routing, with a failover detection time less than 50 milliseconds Track Process redundancy/placement CPU protection Hot patching, online patch upgrade Link aggregation VCT(virtual cable test) Smart-Link ISSU(In-Service Software Upgrade)
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) PTP(Precision Time Protocol) IEEE 1588 version 2/IEEE 802.1AS/SMPTE ST 2059-2/AES67-2015 SNMPv1/SNMPv2c/SNMPv3 RMON(Remote Network Monitoring) and groups 1,2,3 and 9 NETCONF/YANG EAA(Embedded Automation Architecture) Port mirroring SPAN(Switch Port Analyzer)/RSPAN(Remote SPAN)/ERSPAN(Encapsulated remote SPAN) Flow mirroring N:4 port mirroring local and remote port mirroring NetStream/IPv6 NetStream, traffic analysis sampling ratio 1:1

Feature	S6520-SI switch series
	sFlow Information center VCF(Virtual Converged Framework) Fault alarm and automatic fault recovery System logs Alarming based on severity Power, fan, and temperature alarming Debugging information output Device status monitoring mechanism, including the CPU engine, backplane, chips and other key components Configuration through CLI, Telnet, and console port Zero Touch Provisioning DHCP auto-config CWMP(CPE WAN Management Protocol/TR-069) Job scheduler Loading and upgrading through XModem/FTP/TFTP/SFTP/USB Secure Boot Embedded AC, maximum support management 2K AP iMC network management system SmartMC(embedded Smart Graphical Management Center)(built-in Web GUI)
Stacking	IRF2(Intelligent Resilient Framework 2) Distributed device management Distributed link aggregation Distributed resilient routing Stacking through standard Ethernet ports Local device stacking and remote device stacking LACP-, BFD-, and ARP-based multi-active detection (MAD)
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)

Feature	S6520-SI switch series
	INT(Inband Telemetry) Flow group MOD(Mirror On Drop)
OpenFlow	OpenFlow 1.3 Multiple controllers (EQUAL, master/slave) Multiple tables flow Group table
VXLAN	VXLAN L2 switching VXLAN L3 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
Intelligent Lossless Network	PFC(Priority-based Flow Control) ECN(Explicit Congestion Notification)
Energy Saving	Port automatic power down function Port timing down function (Schedule job) EEE(802.3az Energy Efficient Ethernet)
EMC	FCC Part 15 Subpart B CLASS A ICES-003 CLASS A VCCI CLASS A CISPR 32 CLASS A EN 55032 CLASS A CISPR 35 AS/NZS CISPR 32 EN 55035 EN 61000-3-2 EN 61000-3-3

Feature	S6520-SI switch series
	ETSI EN 300 386
Safety	UL 62368-1 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 Specification

Model	S6520X-18C-SI	S6520X-26C-SI	S6520X-26MC-SI	S6520X-26MC-UPWR-SI	S6520X-26XC-UPWR-SI	S6520X-54XC-UPWR-SI
MAC address entries(max)	32,768	32,768	32,768	32,768	32,768	32,768
VLAN table	4,094	4,094	4,094	4,094	4,094	4,094
VLAN interface	1,024	1,024	1,024	1,024	1,024	1,024
IPv4 routing entries(max)	16,384	16,384	16,384	16,384	8,192	8,192
IPv4 ARP entries(max)	16,384	16,384	16,384	16,384	16,384	16,384
IPv4 ACL entries	Ingress: 1024 Egress: 256	Ingress: 1024 Egress: 256	Ingress: 1024 Egress: 256	Ingress: 1024 Egress: 256	Ingress: 1024 Egress: 256	Ingress: 1024 Egress: 256
IPv4 multicast L2 entries	4,000	4,000	4,000	4,000	4,000	4,000
IPv4 multicast L3 entries	1,500	1,500	1,500	1,500	1,500	1,500
IPv6 unicast	8,192	8,192	8,192	8,192	4,096	4,096

Model	S6520X-18C-SI	S6520X-26C-SI	S6520X-26MC-SI	S6520X-26MC-UPWR-SI	S6520X-26XC-UPWR-SI	S6520X-54XC-UPWR-SI
routing entries(max)						
QOS forward queues	8	8	8	8	8	8
IPv6 ACL entries	Ingress: 1024 Egress: 256	Ingress: 1024 Egress: 256	Ingress: 1024 Egress: 256	Ingress: 1024 Egress: 256	Ingress: 1024 Egress: 256	Ingress: 1024 Egress: 256
IPv6 ND entries(max)	10,240	10,240	10,240	10,240	6,144	4,864
IPv6 multicast L2 entries	2,000	2,000	2,000	2,000	2,000	2,000
IPv6 multicast L3 entries	500	500	500	500	500	500
Jumbo frame length	10000	10000	10000	10000	10000	10000
Max Stacking Member	9	9	9	9	9	9
Max Stacking Bandwidth	160Gbps	160Gbps	160Gbps	160Gbps	160Gbps	160Gbps
MAX num in one link group	32	32	16	16	16	16
Link group num	128	128	128	128	128	128

PoE Power Capacity

Power supply 1	Power supply 2	PoE per port	S6520X-26MC-UPWR-SI		S6520X-26XC-UPWR-SI		S6520X-54XC-UPWR-SI	
			Total PoE power capacity	PoE Ports Qty	Total PoE power capacity	PoE Ports Qty	Total PoE power capacity	PoE Ports Qty
PSR360-56A	/	15.4W (802.3af):	210 W	13	180 W	11	90 W	5
		30W (802.3at):		7		6		3
		60W (802.3bt):		3		3		1
		90W (802.3bt):		2		2		1
PSR360-56A	PSR360-56A	15.4W (802.3af):	540 W	24	510 W	24	420 W	27
		30W (802.3at):		18		17		14
		60W (802.3bt):		9		8		7
		90W (802.3bt):		6		5		4
PSR560-56D	/	15.4W (802.3af):	390 W	24	360 W	23	270 W	17
		30W (802.3at):		13		12		9
		60W (802.3bt):		6		6		4
		90W (802.3bt):		4		4		3
PSR560-56D	PSR360-56A	15.4W (802.3af):	750 W	24	690 W	24	600 W	38
		30W (802.3at):		24		23		20
		60W (802.3bt):		12		11		10
		90W (802.3bt):		8		7		6
PSR560-56D	PSR560-56D	15.4W (802.3af):	900 W	24	900 W	24	810 W	48
		30W (802.3at):		24		24		27
		60W (802.3bt):		15		15		13
		90W (802.3bt):		10		10		9
PSR720-56A	/	15.4W (802.3af):	540 W	24	510 W	24	420 W	27
		30W (802.3at):		18		17		14
		60W (802.3bt):		9		8		7
		90W (802.3bt):		6		5		4
PSR720-	PSR360-	15.4W (802.3af):	900 W	24	870 W	24	780 W	48

Power supply 1	Power supply 2	PoE per port	S6520X-26MC-UPWR-SI		S6520X-26XC-UPWR-SI		S6520X-54XC-UPWR-SI	
			Total PoE power capacity	PoE Ports Qty	Total PoE power capacity	PoE Ports Qty	Total PoE power capacity	PoE Ports Qty
56A	56A	30W (802.3at):		24		24		26
		60W (802.3bt):		15		14		13
		90W (802.3bt):		10		9		8
PSR720-56A	PSR560-56D	15.4W (802.3af):	1100 W	24	1050 W	24	960 W	48
		30W (802.3at):		24		24		32
		60W (802.3bt):		18		17		16
		90W (802.3bt):		12		11		10
PSR720-56A	PSR720-56A	15.4W (802.3af):	1260 W	24	1230W	24	1140 W	48
		30W (802.3at):		24		24		38
		60W (802.3bt):		21		20		19
		90W (802.3bt):		14		13		12
PSR1110-56A	/	15.4W (802.3af):	900 W	24	900 W	24	810 W	48
		30W (802.3at):		24		24		27
		60W (802.3bt):		15		15		13
		90W (802.3bt):		10		10		9
PSR1110-56A	PSR360-56A	15.4W (802.3af):	1260 W	24	1260 W	24	1170 W	48
		30W (802.3at):		24		24		39
		60W (802.3bt):		21		21		19
		90W (802.3bt):		14		14		13
PSR1110-56A	PSR560-56D	15.4W (802.3af):	1500 W	24	1440 W	24	1350 W	48
		30W (802.3at):		24		24		45
		60W (802.3bt):		24		24		22
		90W (802.3bt):		16		16		15
PSR1110-56A	PSR720-56A	15.4W (802.3af):	1650 W	24	1620 W	24	1530W	48
		30W (802.3at):		24		24		48
		60W (802.3bt):		24		24		25

Power supply 1	Power supply 2	PoE per port	S6520X-26MC-UPWR-SI		S6520X-26XC-UPWR-SI		S6520X-54XC-UPWR-SI	
			Total PoE power capacity	PoE Ports Qty	Total PoE power capacity	PoE Ports Qty	Total PoE power capacity	PoE Ports Qty
		90W (802.3bt):		18		18		17
PSR1110-56A	PSR1110-56A	15.4W (802.3af):	2040 W	24	2010 W	24	1920 W	48
		30W (802.3at):		24		24		48
		60W (802.3bt):		24		24		32
		90W (802.3bt):		22		22		21

Removable Components Matrix

Field Replace Unit	S6520X-18C-SI S6520X-26C-SI	S6520X-26MC-SI
Removable power supplies		
PSR75-12A	Supported	Not supported
PSR150-A1	Supported	Supported
PSR150-D1	Supported	Supported

Removable Components Matrix (continued)

Field Replace Unit	S6520X-26MC-UPWR-SI	S6520X-26XC-UPWR-SI	S6520X-54XC-UPWR-SI
Removable power supplies			
PSR360-56A	Supported	Supported	Supported
PSR720-56A	Supported	Supported	Supported
PSR1110-56A	Supported	Supported	Supported
PSR560-56D	Supported	Supported	Supported
Removable fan trays			
LSPM1FANSB	Not supported	Supported	Supported

Standards and Protocols Compliance

Organization	Standards and Protocols
IEEE	802.1x Port based network access control protocol

Organization	Standards and Protocols
	802.1ab Link Layer Discovery Protocol
	802.1ak MVRP and MRP
	802.1ax Link Aggregation
	802.1d Media Access Control Bridges
	802.1p Priority
	802.1q VLANs
	802.1s Multiple Spanning Trees
	802.1ag Connectivity Fault Management
	802.1v VLAN classification by Protocol and Port
	802.1w Rapid Reconfiguration of Spanning Tree
	802.3ad Link Aggregation Control Protocol
	802.3ah Ethernet in the First Mile
	802.3x Full Duplex and flow control
	802.3af Power over Ethernet
	802.3at Power over Ethernet
	802.3bt Power over Ethernet
	802.3az Energy Efficient Ethernet
	802.3u 100BASE-T
	802.3ab 1000BASE-T
	802.3z 1000BASE-X
	802.3ae 10-Gigabit Ethernet
	802.3by 25 Gbps
	802.3ba 40/100G Ethernet
IETF	RFC 1213 MIB-2 Stands for Management Information Base
	RFC 2711 IPv6 Router Alert Option
	RFC 2787 Definitions of Managed Objects for the Virtual Router Redundancy Protocol
	RFC 2918 Route Refresh Capability for BGP-4
	RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations
	RFC 2934 Protocol Independent Multicast MIB for IPv4
	RFC 3101 OSPF Not-so-stubby-area option

Organization	Standards and Protocols
	RFC 3019 MLDv1 MIB
	RFC 3046 DHCP Relay Agent Information Option
	RFC 3056 Connection of IPv6 Domains via IPv4 Clouds
	RFC 3065 Autonomous System Confederation for BGP
	RFC 3137 OSPF Stub Router Advertisement sFlow
	RFC 3376 IGMPv3
	RFC 3416 (SNMP Protocol Operations v2)
	RFC 3417 (SNMP Transport Mappings)
	RFC 3418 Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)
	RFC 3484 Default Address Selection for IPv6
	RFC 3509 Alternative Implementations of OSPF Area Border Routers
	RFC 3580 IEEE 802.1X Remote Authentication Dial In User Service (RADIUS) Usage Guidelines
	RFC 3623 Graceful OSPF Restart
	RFC 3768 Virtual Router Redundancy Protocol (VRRP)
	RFC 3810 Multicast Listener Discovery Version 2 (MLDv2) for IPv6
	RFC 3973 PIM Dense Mode
	RFC 4022 MIB for TCP
	RFC 4113 MIB for UDP
	RFC 4213 Basic Transition Mechanisms for IPv6 Hosts and Routers
	RFC 4251 The Secure Shell (SSH) Protocol
	RFC 4252 SSHv6 Authentication
	RFC 4253 SSHv6 Transport Layer
	RFC 4254 SSHv6 Connection
	RFC 4271 A Border Gateway Protocol 4 (BGP-4)
	RFC 4273 Definitions of Managed Objects for BGP-4
	RFC 4291 IP Version 6 Addressing Architecture
	RFC 4292 IP Forwarding Table MIB
	RFC 4293 Management Information Base for the Internet Protocol (IP)
	RFC 4360 BGP Extended Communities Attribute

Organization	Standards and Protocols
	RFC 4419 Key Exchange for SSH
	RFC 4443 ICMPv6
	RFC 4456 BGP Route Reflection: An Alternative to Full Mesh Internal BGP (IBGP)
	RFC 4486 Subcodes for BGP Cease Notification Message
	RFC 4541 IGMP & MLD Snooping Switch
	RFC 4552 Authentication/Confidentiality for OSPFv3
	RFC 4601 PIM Sparse Mode
	RFC 4607 Source-Specific Multicast for IP
	RFC 4724 Graceful Restart Mechanism for BGP
	RFC 4750 OSPFv2 MIB partial support no SetMIB
	RFC 4760 Multiprotocol Extensions for BGP-4
	RFC 4861 IPv6 Neighbor Discovery
	RFC 4862 IPv6 Stateless Address Auto-configuration
	RFC 4940 IANA Considerations for OSPF
	RFC 5059 Bootstrap Router (BSR) Mechanism for PIM, PIM WG
	RFC 5065 Autonomous System Confederation for BGP
	RFC 5095 Deprecation of Type 0 Routing Headers in IPv6
	RFC 5187 OSPFv3 Graceful Restart
	RFC 5340 OSPFv3 for IPv6
	RFC 5424 Syslog Protocol
	RFC 5492 Capabilities Advertisement with BGP-4
	RFC 5519 Multicast Group Membership Discovery MIB (MLDv2 only)
	RFC 5798 VRRP (exclude Accept Mode and sub-sec timer)
	RFC 5880 Bidirectional Forwarding Detection
	RFC 5905 Network Time Protocol Version 4: Protocol and Algorithms Specification
	RFC 6620 FCFS SAVI
	RFC 6987 OSPF Stub Router Advertisement
	RFC6020 YANG - A Data Modeling Language for the Network Configuration Protocol (NETCONF)
	RFC7348 Virtual eXtensible Local Area Network (VXLAN): A Framework for Overlaying Virtualized Layer 2 Networks over Layer 3 Networks

Organization	Standards and Protocols
	RFC7432 BGP MPLS-Based Ethernet VPN
	RFC4664 Framework for Layer 2 Virtual Private Networks (L2VPNs)
	RFC4665 Service Requirements for Layer 2 Provider Provisioned Virtual Private Networks
	RFC4761 Virtual Private LAN Service (VPLS) Using BGP for Auto-Discovery and Signaling
	RFC4762 Virtual Private LAN Service (VPLS) Using Label Distribution Protocol (LDP) Signaling
	RFC5120 M-ISIS: Multi Topology (MT) Routing in Intermediate System to Intermediate Systems (IS-ISs)
	RFC5280 Internet X.509 Public Key Infrastructure Certificate and Certificate Revocation List (CRL) Profile
	RFC5308 Routing IPv6 with IS-IS
	RFC5381 Experience of Implementing NETCONF over SOAP
	RFC5415 Control and Provisioning of Wireless Access Points (CAPWAP) Protocol Specification
ITU	ITU-T Y.1731
	ITU-T Rec G.8032/Y.1344 Mar. 2010

Ordering Information

Product ID	Product Description
LS-6520X-18C-SI-GL	H3C S6520X-18C-SI L3 Ethernet Switch with 16*1G/10G BASE-X SFP Plus Ports and 1*Slot,Without Power Supplies
LS-6520X-26C-SI-GL	H3C S6520X-26C-SI L3 Ethernet Switch with 24*1G/10G BASE-X SFP Plus Ports and 1*Slot,Without Power Supplies
LS-6520X-26MC-SI-GL	H3C S6520X-26MC-SI L3 Ethernet Switch with 24*100M/1G/2.5G/5GBase-T Ports and 1*Slot, Without Power Supplies
LS-6520X-26MC-UPWR-SI-GL	H3C S6520X-26MC-UPWR-SI L3 Ethernet Switch with 24*100M/1G/2.5G/5GBase-T(UPOE) Ports and 1*Slot, Without Power Supplies
LS-6520X-26XC-UPWR-SI	H3C S6520X-26XC-UPWR-SI L3 Ethernet Switch with 24*100M/1G/2.5G/5G/10GBase-T UPoE Ports and 1* Slot, Without Power Supplies
LS-6520X-54XC-UPWR-SI	H3C S6520X-54XC-UPWR-SI L3 Ethernet Switch with 48*100M/1G/2.5G/5G/10GBase-T UPoE Ports,4*QSFP Plus Ports and 1*Slot, Without Power Supplies
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
PSR560-56D	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
Fan	
LSPM1FANSB	Ethernet Switch Fan Module(Port to Power Airflow)
Modules	
LSWM2QP2P	2-Port 40G QSFP Plus Interface Card
LSW2SP2PM	2-Port 10G SFP Plus Interface Card with MACSec
LSW2XGT2PM	2-Port 10G BASE-T Interface Card with MACSec
LSWM4SP8PM	8-Port 10G SFP Plus with MACSec Interface Module
LSPM4G4T6P	4-Port 10/100/1000BASE-T Ethernet,6-Port SFP(2-Port Combo) Interface Module
LSWM2MGT8P	8-Port 1/2.5/5G BASE-T Ethernet Copper Interface Module
LSWM2XMGT8P	8-Port 1/2.5/5/10G BASE-T Ethernet Copper Interface Module
LSWM2ZSP2P	2-Port 25G SFP28 Ethernet Optical Interface Module
LSWM2SP2PB	2-Port 10G SFP Plus Ethernet Optical Interface Module
Wireless license	
LIS-WX-128-BE	Enhanced Access Controller License,128 Aps
LIS-WX-32-BE	Enhanced Access Controller License,32 Aps
LIS-WX-16-BE	Enhanced Access Controller License,16 Aps
LIS-WX-8-BE	Enhanced Access Controller License,8 Aps
LIS-WX-1-BE	Enhanced Access Controller License,1 AP
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-LH40-SM1550	SFP+ Module(1550nm,40km,LC)
SFP-XG-LX-SM1310-E	SFP+ Module(1310nm,10km,LC)
SFP-XG-SX-MM850-E	SFP+ Module(850nm,300m,LC)
SFP-25G-SR-MM850	25G SFP28 Optical Transceiver Module (850nm,100m,SR,MM,LC)
QSFP-40G-LR4-WDM1300	40GBASE-LR4 QSFP+ Optical Transceiver Module
QSFP-40G-CSR4-MM850	QSFP+ 40GBASE Optical Transceiver Module (850nm,300m,CSR4,Support 40G to 4*10G)
QSFP-40G-SR4-MM850	QSFP+ 40GBASE Optical Transceiver Module (850nm,100m,SR4,Support 40G to 4*10G)
QSFP-100G-SR4-MM850	100G QSFP28 Optical Transceiver Module (850nm,100m OM4,SR4,MPO)
QSFP-100G-LR4-WDM1300	100G QSFP28 Optical Transceiver Module(1310nm,10km,LR4,WDM,LC)
QSFP-100G-LR4L-WDM1300	100G QSFP28 Optical Transceiver Module (1310nm,2km,LR4L,CWDM4,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
SFP-25G-D-CAB-1M	25G SFP28 to 25G SFP28 1m Passive Cable
SFP-25G-D-CAB-3M	25G SFP28 to 25G SFP28 3m Passive Cable
SFP-25G-D-CAB-5M	25G SFP28 to 25G SFP28 5m Passive Cable
LSWM1QSTK0	40G QSFP+ Cable 1m
LSWM1QSTK1	40G QSFP+ Cable 3m
LSWM1QSTK2	40G QSFP+ Cable 5m
LSWM1QSTK3	40G QSFP+ to 4x10G SFP+ Cable 1m
LSWM1QSTK4	40G QSFP+ to 4x10G SFP+ Cable 3m
LSWM1QSTK5	40G QSFP+ to 4x10G SFP+ Cable 5m
QSFP-100G-D-CAB-1M	100G QSFP28 to 100G QSFP28 1m Passive Cable
QSFP-100G-D-CAB-3M	100G QSFP28 to 100G QSFP28 3m Passive Cable

QSFP-100G-D-CAB-5M	100G QSFP28 to 100G QSFP28 5m Passive Cable
QSFP-100G-4SFP-25G-CAB-1M	100G QSFP28 to 4x25G SFP28 1m Passive Cable
QSFP-100G-4SFP-25G-CAB-3M	100G QSFP28 to 4x25G SFP28 3m Passive Cable
QSFP-100G-4SFP-25G-CAB-5M	100G QSFP28 to 4x25G SFP28 5m Passive Cable
OP-MPO8-8LC-10-M	Fiber Connector, MPO(8 core)/PC,8LC/PC(0.5m),Multimode(OM3),3.0mm,10.0m
OP-MPO8-MPO8-10-M	Fiber connector, MPO(8 core)/PC,MPO(8 core)/PC, Multimode(OM3),3.0mm,10.0m
OP-MPO8-MPO8-50-M	Fiber connector, MPO(8 core)/PC,MPO(8 core)/PC, Multimode(OM3),3.0mm,50.0m
OP-MPO8-MPO8-100-M	Fiber connector, MPO(8 core)/PC,MPO(8 core)/PC, Multimode(OM3),3.0mm,100.0m
OP-MPO8-MPO8-200-M	Fiber connector, MPO(8 core)/PC,MPO(8 core)/PC, Multimode(OM3),3.0mm,200.0m

Datasheet history

Description	Location	Date
Updated the 'Software Specifications'	Software Specifications	December 20，2023
Remove ' S6520X-16ST-SI ',' S6520X-24ST-SI ', ' S6520X-10XT-SI', ' S6520X-16XT-SI '. More details on SMB website.	Full Text	March 19, 2024

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