



# H3C S6530X Series Advanced Aggregation 10GE Switches Datasheet

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New H3C Technologies Co., Limited



#### **Product Overview**

H3C S6530X series switches provide industry-leading high performance and scalable aggregation switching solution with modular dual power, fixed uplinks (40GE/100GE) and IRF for resiliency. The series offers OSPF/BGP and multicast, SDN enabled and flexible management.

The S6530X switch series contains the following models:

- S6530X-24X8C: 24×1GE/10GE SFP+ Ports, 8×40GE/100GE QSFP28 Ports, 5×fan tray slots, and 2×power module slots.
- S6530X-48X8C: 48×1GE/10GE SFP+ Ports, 8×40GE/100GE QSFP28 Ports, 5×fan tray slots, and 2×power module slots.



S6530X-24X8C



S6530X-48X8C



#### **Features and Benefits**

#### High-density 10GE Forwarding

The switch offers high-density 10GE forwarding. It provides powerful hardware forwarding capacity and abundant campus features. It provides up to 48/24\* 48/24\*1GE/10GE/25GE autosensing SFP28 ports and 8\*100G ports. The switch supports modular power modules and fan trays. By using different fan trays, the switch can provide field changeable airflows.

#### **Embedded Access Controller**

H3C S6530X implements the WLAN function by installing an AC feature pack on the main control unit, thereby implementing both the wired function and the WLAN function on a single device. Embedded AC is a low-cost WLAN solution, save overall investment, improve forwarding capacity, realized a true unified wired and wireless solution in Campus. Max 2K AP supported on one single switches.

#### H3C Intelligent Resilient Framework 2 (IRF2)

H3C Intelligent Resilient Framework 2 (IRF 2) virtualizes multiple S6530X 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 uses 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 S6530X 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) is 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 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 on the 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-G and S7500X-G 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 5 fan tray redundancy.
- 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.
- Support hardware-level dual boot, use two FLASH chips to store boot software (system boot program), realize hardware-level boot redundancy backup, and avoid the failure of the switch to start due to FLASH chip failure.

#### **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/v2/v3, Telnet, and more secure SSH 2.0 and SSL.
- Uses OAM to enhance system management capability.

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• Supports FTP for system upgrade.

#### Precision Time Protocol (PTP)

H3C S6530X switch series supports 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 S6530X switch series supports 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.

#### Enhanced Media Delivery Index (eMDI)

eMDI is a solution to audio and video service quality monitoring and fault locating. It is intended to solve problems caused by packet loss, packet sequence errors, and jitters.

eMDI monitors and analyzes specific TCP or RTP packets on each node of an IP network in real time, providing data for quickly locating network faults.

#### 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

#### Multichassis Link Aggregation Group (M-LAG)

H3C S6530X switch series 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 S6530X 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.

## **Technical Specifications**

ltem	S6530X-24X8C	S6530X-48X8C
СРИ	Quad core, 2GHz	
Flash/SDRAM	4GB/4GB	
Packet Buffer	36M	
Box Switching capacity	4.8Tbps	
Port Switching capacity	2.08Tbps	2.56Tbps
Packet forwarding rate	1560Mpps	1920Mpps
Dimensions ( $H \times W \times D$ )	44 × 440 × 400 mm (1.73 × 17.32 × 15.75	in)
Weight	≤ 7.3 kg	≤ 7.6 kg
Console ports	1	
Management Ethernet ports	1	
USB ports	1	



Item	S6530X-24X8C	S6530X-48X8C
SFP+	24	48
QSFP28	8*	8*
Power supply slots	2	
Fan trays	5 hot swappable fan trays, invertible airfle	w
	AC:	
	Rated: 100 VAC to 240 VAC @ 50 Hz/60 H	Hz
	Max.: 90 VAC to 264 VAC @ 47 Hz to 63 H	Hz
	HVDC:	
Input voltage range	Rated voltage range: 240V DC	
	Max voltage range: 180V ~ 320V DC	
	DC:	
	Rated voltage range: –48 to –60 VDC	
	Max voltage range: –36 to –72 VDC	
	MIN:	MIN:
	Single AC: 76W;	Single AC: 76W;
	Dual AC: 83W.	Dual AC: 83W.
Power consumption	MAX:	MAX:
	Single AC: 186W;	Single AC: 217W;
	Dual AC: 191W.	Dual AC: 221W.
	-5°C to 45°C (23°F to 113°F)	
Operating temperature	-60m-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)	
Operating & storage humidity	5% RH to 95% RH, non-condensing	
MTBF(Year)	61.4	58.44
MTTR(Hour)	1	1

Note: The QSFP28\* ports of S6530X-24X8C and S6530X-48X8C are 40GE speed by default, you can purchase a license to upgrade to 100GE speed. The QSFP28 ports of S6530X-24Y8C and S6530X-48Y8C are 100GE speed by default

## Software Specifications

Feature	S6530X series
Virtualization	Intelligent Resilient Framework 2 (IRF2)



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)           M-LAG           10GF/25GF40GE/100GE port aggregation           Static aggregation           Dynamic aggregation           Dynamic aggregation           Dynamic aggregation           Dynamic aggregation           MAC address           MAC automatic learning and aging           MAC learning limit           MAC filtering           Openflowti-3           Multiple controllers (EQUAL mode, active/standby mode)           Multi-table pipeline           Group table           Meter           Port-based VLAN           Default VLAN           QinQ and flexible QinQ           Guest VLAN	Feature	S6530X series
Distributed resilient routing         Stacking through standard Ethernet ports         Local device stacking and remote device stacking         LACP., BFD-, and ARP-based multi-active detection (MAD)         M-LAG         Link aggregation         Static aggregation         Dynamic aggregation         Jumbo frame         Supported         MAC address         MAC address         MAC automatic learning and aging         MAC filtering         Openflow         Openflow1.3         Multi-table pipeline         Group table         Meter         Port-based VLAN         QinQ and flexible QinQ         Guest VLAN         VLAN mapping         STP/RSTP/MSTPPVST+ and RPVST+         MVRP         VLAN division based on IP, MAC, protocol, policy, port         Traffic monitoring         LLDP/         LLDP		Distributed device management
Stacking through standard Ethernet ports         Local device stacking and remote device stacking         LACP., BFD-, and ARP-based multi-active detection (MAD)         M-LAG         Link aggregation         Static aggregation         Dynamic aggregation         Dynamic aggregation         Supported         MAC address         MAC address         MAC address         MAC altomatic learning and aging         MAC filtering         Openflow1.3         Multiple controllers (EQUAL mode, active/standby mode)         VI_AN		Distributed link aggregation
Local device stacking and remote device stacking       LACP-, BFD-, and ARP-based multi-active detection (MAD)       M-LAG       Link aggregation       Static aggregation       Dynamic aggregation       Jumbo frame       Supported       MAC address       MAC address       MAC automatic learning and aging       MAC filtering       Openflow1.3       Multiple controllers (EQUAL mode, active/standby mode)       Multiple controllers (EQUAL mode, active/standby mode)       Multiple controllers (EQUAL mode, active/standby mode)       Multi-table pipeline       Group table       Meter       VLAN       VIAN       VIAN       VIAN       VIAN       STP/RSTP/MSTPPVST+ and RPVST+       MVRP       VLAN division based on IP, MAC, protocol, policy, port       Traffic monitoring       LIDP		Distributed resilient routing
LACP, BFD, and ARP-based multi-active detection (MAD)M-LAGLink aggregationJumbo frameSupportedMAC adtornatic learning and aging MAC learning limit MAC filteringMAC adtornatic learning and aging MAC learning limit MAC filteringSND/ Openflow1.3SND/ Openflow1Port-based VLAN Default VLANPort-based VLAN Oing and flexible QinQ Guest VLAN VLANVLANSTP//STP/NSTP/VST+ and RPVST+ MVRP VLAN division based on IP, MAC, protocol, policy, portTraffic monitoringLIDPLIDPLIDP		Stacking through standard Ethernet ports
Initial ActionM-LAGLink aggregation10GE/25GE/40GE/100GE port aggregation Static aggregation Dynamic aggregationJumbo frameSupportedMAC addressStatic/Dynamic/Blackhole MAC addressMAC addressMAC automatic learning and aging MAC learning limit MAC filteringSND/ OpenflowOpenflow1.3 Multiple controllers (EQUAL mode, active/standby mode) Multi-table pipeline Group table MeterVLANPort-based VLAN Default VLAN QinQ and flexible QinQ Guest VLAN VLAN witsion based on IP, MAC, protocol, policy, portTraffic monitoring\$FLOWLIDPLIDP/LIDP-MED		Local device stacking and remote device stacking
Link aggregation       10GE/25GE/40GE/100GE port aggregation         Static aggregation       Static aggregation         Jumbo frame       Supported         MAC address       MAC automatic learning and aging         MAC learning limit       MAC filtering         Openflow1.3       Multiple controllers (EQUAL mode, active/standby mode)         Multiple controllers (EQUAL mode, active/standby mode)       Multiple controllers (EQUAL mode, active/standby mode)         Multiple controllers (EQUAL mode, active/standby mode)       Multiple controllers (EQUAL mode, active/standby mode)         Multiple controllers (EQUAL mode, active/standby mode)       Multiple controllers (EQUAL mode, active/standby mode)         VLAN       QinQ and flexible QinQ       Guest VLAN         VLAN       QinQ and flexible QinQ       Guest VLAN         VLAN       VLAN mapping       STP/RSTP/MSTP/MSTPPVST+ and RPVST+         MVRP       VLAN division based on IP, MAC, protocol, policy, port         Traffic monitoring       \$FLOW       LLDP/LLDP-MED		LACP-, BFD-, and ARP-based multi-active detection (MAD)
Link aggregation     Static aggregation       Jumbo frame     Supported       MAC address     MAC automatic learning and aging       MAC address     MAC learning limit       MAC filtering     MAC filtering       Openflow1.3     Multiple controllers (EQUAL mode, active/standby mode)       Multi-table pipeline     Group table       Group table     Meter       VLAN     Default VLAN       VLAN     Guest VLAN       VLAN     Via wapping       STP/STP/MSTPPVST+ and RPVST+     MVRP       VLAN division based on IP, MAC, protocol, policy, port       Traffic monitoring     FLOW		M-LAG
aggregation         Static aggregation           Jumbo frame         Supported           MAC address         MAC automatic learning and aging           MAC address         MAC automatic learning and aging           MAC filtering         MAC filtering           Openflow1.3         Multiple controllers (EQUAL mode, active/standby mode)           Multi-table pipeline         Group table           Meter         Meter           Port-based VLAN         Default VLAN           Qing and flexible QinQ         Guest VLAN           VLAN         Vicie VLAN           VLAN mapping         STP/RSTP/MSTPPVST+ and RPVST+           MVRP         VLAN division based on IP, MAC, protocol, policy, port           Traffic monitoring         sFLOW		10GE/25GE/40GE/100GE port aggregation
IndexDynamic aggregationJumbo frameSupportedMAC addressStatic/Dynamic/ Blackhole MAC addressMAC addressMAC automatic learning and agingMAC learning limitMAC filteringMAC filteringOpenflow1.3SND/ OpenflowMultiple controllers (EQUAL mode, active/standby mode)Multi-table pipeline Group tableMeterVLANDefault VLANDefault VLANDefault VLANOinQ and flexible QinQGuest VLANVLANVice VLANVLAN mapping STP/RSTP/MSTPPVST+ and RPVST+ MVRP VLAN division based on IP, MAC, protocol, policy, portTraffic monitoringsFLOWLIDPLLDP/LLDP-MED		Static aggregation
MAC address     Static/Dynamic/ Blackhole MAC address       MAC address     MAC automatic learning and aging       MAC learning limit     MAC filtering       MAC filtering     Openflow1.3       Multiple controllers (EQUAL mode, active/standby mode)       Multi-table pipeline       Group table       Meter       Port-based VLAN       Default VLAN       QinQ and flexible QinQ       Guest VLAN       VLAN division based on IP, MAC, protocol, policy, port       Traffic       monitoring       LLDP	aggregation	Dynamic aggregation
MAC address table       MAC automatic learning and aging MAC learning limit MAC filtering         MAC filtering       MAC filtering         SND/ Openflow       Openflow1.3 Multiple controllers (EQUAL mode, active/standby mode) Multi-table pipeline Group table         Muttiple controllers (EQUAL mode, active/standby mode)       Multi-table pipeline Group table         Meter       Port-based VLAN         Default VLAN       Default VLAN         QinQ and flexible QinQ       Guest VLAN         VLAN       Vice VLAN         VLAN mapping       STP/RSTP/MSTPPVST+ and RPVST+         MVRP       VLAN division based on IP, MAC, protocol, policy, port         Traffic monitoring       sFLOW         LIDP/LLDP-MED       LLDP/LLDP-MED	Jumbo frame	Supported
table     MAC learning limit       MAC filtering       SND/       Openflow       SND/       Openflow       Multiple controllers (EQUAL mode, active/standby mode)       Multi-table pipeline       Group table       Meter       Port-based VLAN       Default VLAN       QinQ and flexible QinQ       Guest VLAN       VLAN       VLAN       VLAN       VLAN mapping       STP/RSTP/MSTPPVST+ and RPVST+       MVRP       VLAN division based on IP, MAC, protocol, policy, port       Traffic monitoring       LIDP       LIDP		Static/Dynamic/ Blackhole MAC address
MAC filtering MAC filtering Openflow1.3 Multiple controllers (EQUAL mode, active/standby mode) Multi-table pipeline Group table Meter Port-based VLAN Default VLAN QinQ and flexible QinQ Guest VLAN VLAN VLAN VLAN VLAN VLAN VLAN STP/RSTP/MSTPPVST+ and RPVST+ MVRP VLAN division based on IP, MAC, protocol, policy, port Traffic monitoring LLDP/LLDP-MED	MAC address	MAC automatic learning and aging
SND/ Openflow: Aulti-table pipeline Group table Meter Port-based VLAN Default VLAN QinQ and flexible QinQ Guest VLAN VLAN VLAN VLAN VLAN VLAN Traffic monitoring LLDP LLDP/LLDP-MED	table	MAC learning limit
SND/ Openflow       Multiple controllers (EQUAL mode, active/standby mode)         Multiple controllers (EQUAL mode, active/standby mode)         Multi-table pipeline         Group table         Group table         Meter         Port-based VLAN         Default VLAN         QinQ and flexible QinQ         Guest VLAN         VLAN         Vice VLAN         VLAN mapping         STP/RSTP/MSTPPVST+ and RPVST+         MVRP         VLAN division based on IP, MAC, protocol, policy, port         Traffic         monitoring         ELDP/LLDP-MED		MAC filtering
SND/       Multi-table pipeline         Openflow       Group table         Meter       Meter         Port-based VLAN       Default VLAN         QinQ and flexible QinQ       Guest VLAN         VLAN       Vice VLAN         VLAN       Vice VLAN         VLAN       Vice VLAN         VLAN division based on IP, MAC, protocol, policy, port         Traffic monitoring       sFLOW         LIDP       LLDP/LLDP-MED		Openflow1.3
Openflow       Multi-table pipeline         Group table       Meter         Port-based VLAN       Default VLAN         Default VLAN       Default VLAN         QinQ and flexible QinQ       Guest VLAN         VLAN       Vice VLAN         VLAN mapping         STP/RSTP/MSTPPVST+ and RPVST+         MVRP         VLAN division based on IP, MAC, protocol, policy, port         Traffic monitoring       SFLOW         LIDP       LLDP-MED		Multiple controllers (EQUAL mode, active/standby mode)
Group table         Meter         Port-based VLAN         Default VLAN         QinQ and flexible QinQ         Guest VLAN         STP/RSTP/MSTPPVST+ and RPVST+         MVRP         VLAN division based on IP, MAC, protocol, policy, port         Traffic monitoring         FLOW         LLDP/LLDP-MED		Multi-table pipeline
Port-based VLAN         Default VLAN         QinQ and flexible QinQ         Guest VLAN         VLAN         Vice VLAN         VLAN mapping         STP/RSTP/MSTPPVST+ and RPVST+         MVRP         VLAN division based on IP, MAC, protocol, policy, port         Traffic monitoring         LIDP         LIDP/LIDP-MED	Opennow	Group table
Default VLANQinQ and flexible QinQGuest VLANVLANVice VLANVice VLANVIAN mappingSTP/RSTP/MSTPPVST+ and RPVST+MVRPVLAN division based on IP, MAC, protocol, policy, portTraffic monitoringLIDPLIDP/LIDP-MED		Meter
VLANQinQ and flexible QinQ Guest VLAN Voice VLAN Vice VLAN TP/RSTP/MSTPPVST+ and RPVST+ MVRP VLAN division based on IP, MAC, protocol, policy, portTraffic monitoringsfLOWLLDPLLDP/LLDP-MED		Port-based VLAN
VLAN       Guest VLAN         VLAN       Voice VLAN         VLAN mapping       STP/RSTP/MSTPPVST+ and RPVST+         MVRP       VLAN division based on IP, MAC, protocol, policy, port         Traffic monitoring       sFLOW         LLDP       LLDP/LLDP-MED		Default VLAN
VLAN       Voice VLAN         VLAN mapping         STP/RSTP/MSTPPVST+ and RPVST+         MVRP         VLAN division based on IP, MAC, protocol, policy, port         Traffic monitoring         LLDP         ULDP/LLDP-MED		QinQ and flexible QinQ
VLAN mapping STP/RSTP/MSTPPVST+ and RPVST+ MVRP VLAN division based on IP, MAC, protocol, policy, portTraffic monitoringsFLOWLLDPLLDP/LLDP-MED		Guest VLAN
STP/RSTP/MSTPPVST+ and RPVST+         MVRP         VLAN division based on IP, MAC, protocol, policy, port         Traffic monitoring         LLDP         LLDP-MED	VLAN	Voice VLAN
MVRP       VLAN division based on IP, MAC, protocol, policy, port       Traffic monitoring       LLDP       LLDP-MED		VLAN mapping
VLAN division based on IP, MAC, protocol, policy, port       Traffic monitoring       LLDP       LLDP-MED		STP/RSTP/MSTPPVST+ and RPVST+
Traffic monitoring     sFLOW       LLDP     LLDP/LLDP-MED		MVRP
monitoring     sFLOW       LLDP     LLDP/LLDP-MED		VLAN division based on IP, MAC, protocol, policy, port
		sFLOW
MPLS Support MPLS MCE	LLDP	LLDP/LLDP-MED
	MPLS	Support MPLS MCE



Feature	S6530X series
	Support MPLS L3VPN
	Support MPLS L2VPN
	Support MPLS SR
	DHCPv4/v6 client
	DHCP snooping, DHCPv6 snooping
DHCP	DHCPv4/v6 relay
	DHCPv4/v6 server
	DHCP snooping Option 82/DHCP relay Option 82
	Static entry
	Gratuitous ARP
	Common proxy ARP and local proxy ARP
ARP	Dynamic ARP inspection
,	ARP anti-attack
	ARP source suppression
	ARP detection based on DHCP snooping safety entries, 802.1X entries, and IP/MAC static binding entries
	IPv4/IPv6 static routing, Dual stack
	Dynamic routing such as RIPv1/2 and RIPng
	Policy routing
Routing	Equal-cost multi-path routing (ECMP)
Routing	VRRP/VRRPv3
	OSPFv1/v2, OSPFv3
	BGP, BGP4+ for Ipv6
	IS-IS, IS-IS v6
	Neighbor Discovery (ND)
	ND Snooping
	PMTU
IPv6	ICMP v6, Telnet v6, SFTP v6, SNMP v6, BFD v6, VRRP v3
	IPv6 Portal
	IPv6 tunnel
	IPV6 SAVI
	VXLAN Layer 2 switching
VxLAN	VXLAN routing switching
	VXLAN centralized gateway, distributed Anycast gateway



Feature	S6530X series
	BGP EVPN
	Centralized VXLAN control through OpenFlow+Netconf
	802.1Qbb PFC
DC feature	ECN
	IGMP Snooping v1/v2/v3
	MLD Snooping v1/v2
	PIM Snooping
	MLD proxy
	Multicast VLAN
	Multicast load sharing of bundled ports
	Port-based multicast traffic statistics
Multicast	Controllable multicast
	IGMP v1/v2/v3
	MLD v1/v2
	PIM-DM, PIM-SM and PIM-SSM
	MSDP and MSDP for IPv6
	MBGP and MBGP for IPv6
	IGMP Snooping fast-leave
	IGMP Snooping group-policy
Zero	DHCP auto-config
configuration	CWMP-TR069
Broadcast/Mu	Storm suppression based on port bandwidth percentage
lticast/Unicast	Storm suppression based on PPS
storm suppression	Storm suppression based on BPS
	STP/RSTP/MSTP/PVST/PVST+
	STP Root Guard
Loop-free redundant Layer 2 topology	BPDU Guard
	BPDU Blocking and Root Guard
	RRPP
	SmartLink
	Link Detection (UDLD)
	Digital Diagnostic Monitor (DDM)
	G.8032 Ethernet ring protection switching (ERPS), Convergence time within 50ms



Feature	S6530X series
	Rate limit for receiving and transmitting packets
	CAR
	Eight output queues per port
	Flexible queue scheduling algorithms based on both port and queue, including SP, WDRR, WRR, WFQ, and SP+WRR
QoS/ACL	802.1p priority and DSCP priority
	Layer 2 to Layer 4 packet filtering
	Traffic classification based on source MAC, destination MAC, source IP, destination IP, port, protocol, and VLAN
	Time range
	WRED
	Flow mirroring
	N:4 port mirroring
Mirroring	Local port mirroring and remote port mirroring
	Policy-based Mirroring
	Traffic Mirroring
	Hierarchical user management and password protection
	MAC-based authentication
	802.1X
	Storm constrain
	AAA authentication
	Portal authentication
	RADIUS authentication
	HWTACACS
Convitu	SSH, SSH2.0
Security	Port isolation, Port security, Sticky MAC
	IP/MAC/Port/VLAN binding
	MFF
	EAD
	SAVI, SAVA
	IP source guard
	HTTPs
	SSL
	Public Key Infrastructure (PKI)



Feature	S6530X series
	CPU protection
	Anti DOS/APR/ICMP attack
	Control Plane Protection (CoPP), Wireless Intrusion Prevention System (WIPS)
	All ports MACsec
Loading and	Loading and upgrading through XMODEM/FTP/TFTP
upgrading	Loading and upgrading from USB
	Zero Touch Provisioning
	Configuration through CLI, Telnet, and console port
	Embedded AC, maximum support management 2K AP
	Restful
	Python
	NETCONF
	Telemetry
	Job scheduler
	ISSU
	VCT
	802.1ag and 802.3ah
Management	Simple Network Management Protocol (SNMPv1/v2c/v3)
and	iMC network management system
maintenance	Embedded SmartMC Graphical network management platform
	System log
	Alarming based on severity
	NTP, PTP
	Power, fan, and temperature alarming
	Debugging information output
	Ping and Tracert
	Track
	Telnet-based remote maintenance
	USB for file upload and download, support USB deployment
	iNQA (Intelligent Network Quality Analyzer)
	eMDI (Enhanced Media Delivery Index)
	FCC Part 15 Subpart B CLASS A
EMC	ICES-003 CLASS A
	VCCI CLASS A



Feature	S6530X series
	CISPR 32 CLASS A
	EN 55032 CLASS A
	AS/NZS CISPR32 CLASS A
	CISPR 24
	EN 55024
	EN 61000-3-2
	EN 61000-3-3
	GB/T 9254
	YD/T 993
	UL 60950-1
	CAN/CSA C22.2 No 60950-1
	IEC 60950-1
Safety	EN 60950-1
	AS/NZS 60950-1
	FDA 21 CFR Subchapter J
	GB 4943.1

## **Performance Specification**

Model	S6530X series
MAC address entries(max)	576K
VLAN table	4094
VLAN interface	4094
IPv4 routing entries(max)	768K
IPv4 ARP entries(max)	78K
IPv4 ACL entries	Ingress: 26K Egress: 2K
IPv4 multicast L2 entries	8К
IPv4 multicast L3 entries	8K
IPv6 unicast routing entries(max)	64К
QOS forward queues	8
IPv6 ACL entries	Ingress: 13K Egress: 1K



Model	S6530X series
IPv6 ND entries(max)	48K
IPv6 multicast L2 entries	8К
IPv6 multicast L3 entries	8К
Jumbo frame length	13312
Max Stacking Member	9
Max Stacking Bandwidth	800Gbps

## Removable Components Matrix

Field Replace Unit	S6530X series	
Removable power supplies		
PSR250-12A1	Supported (Power Panel Side Exhaust Airflow)	
PSR250-12A	Supported (Power Panel Side Intake Airflow)	
PSR450-12D	Supported (Power Panel Side Exhaust Airflow)	
Removable fan trays		
LSPM1FANSB-SN	Supported (Fan Panel Side Exhaust Airflow)	
LSPM1FANSA-SN	Supported (Fan Panel Side Intake Airflow)	

## **Ordering Information**

Product ID	Product Description
LS-6530X-24X8C	H3C S6530X-24X8C L3 Ethernet Switch with 24*SFP+ Ports,8*QSFP28 Ports,Without Power Supplies
LS-6530X-48X8C	H3C S6530X-24X8C L3 Ethernet Switch with 48*SFP+ Ports,8*QSFP28 Ports,Without Power Supplies
PSR250-12A1	250W AC Power Supply Module (Power Panel Side Exhaust Airflow)
PSR250-12A	250W AC Power Supply Module (Power Panel Side Intake Airflow)
PSR450-12D	450W DC Power Supply Module (Power Panel Side Exhaust Airflow)
LSPM1FANSB-SN	H3C Fan Module (Fan Panel Side Exhaust Airflow)
LSPM1FANSA-SN	H3C Fan Module (Fan Panel Side Intake Airflow)
LIS-B-100GUPG-2P	H3C 2*40G Upgrade to 2*100G Feature License for Fixed-Port Switches



Product ID	Product Description
LIS-B-100GUPG-4P	H3C 4*40G Upgrade to 4*100G Feature License for Fixed-Port Switches
SFP-GE-SX-MM850-A	Optical Module -SFP-GE - Multimode Module- (850nm,0.55km,LC)
SFP-GE-LX-SM1310-A	Optical Module-SFP-GE-Single Mode Module-(1310nm,10km,LC)
SFP-GE-LH40-SM1310	Optical Module-SFP-GE-Single Mode Module-(1310nm,40km,LC)
SFP-GE-LH40-SM1550	Optical Module -SFP-GE- Single Mode Module- (1550nm,40km,LC)
SFP-GE-LH80-SM1550	Optical Module -SFP-GE- Single Mode Module- (1550nm,80km,LC)
SFP-GE-LH100-SM1550	Optical Module-SFP-GE-Single Mode Module-(1550nm,100km,LC)
SFP-GE-LX-SM1310-BIDI	Optical Module-SFP Gigabit BIDI Optical Module-TX1310/RX1490,10km,LC
SFP-GE-LX-SM1490-BIDI	Optical Module-SFP Gigabit BIDI Optical Module-TX1490/RX1310,10km,LC
SFP-GE-T	SFP GE electrical port module (100m, RJ45)
SFP-GE-TD	Electrical Module-SFP-GE-(RJ45)
SFP-GE-LH40-SM1310-D	Optical Module-SFP-GE-Single Mode Module-(1310nm,40km,LC)
SFP-GE-LH80-SM1550-D	Optical Module-SFP-GE-Single Mode Module-(1550nm,80km,LC)
SFP-GE-LX-SM1310-D	Optical Module-SFP-GE-Single Mode Module-(1310nm,10km,LC)
SFP-GE-SX-MM850-D	Optical Module-SFP-GE- Multimode Module-(850nm,0.55km,LC)
SFP-GE-LH40-SM1310-BIDI	SFP Gigabit BIDI Optical Module (TX1310/RX1550nm, 40km, LC)
SFP-GE-LH40-SM1550-BIDI	SFP Gigabit BIDI Optical Module (TX1550/RX1310nm, 40km, LC)
SFP-XG-SX-MM850-A	SFP+ 10 Gigabit Module (850nm, 300m, LC)
SFP-XG-LX-SM1310	SFP+ 10 Gigabit Module (1310nm, 10km, LC)
SFP-XG-LH40-SM1550	SFP+ 10 Gigabit Module (1550nm, 40km, LC)
SFP-XG-LH80-SM1550	SFP+ 10 Gigabit Module (1550nm, 80km, LC)
SFP-XG-LX-SM1310-E	SFP+ 10 Gigabit Module (1310nm, 10km, LC)
SFP-XG-SX-MM850-E	SFP+ 10 Gigabit Module (850nm, 300m, LC)
SFP-XG-LH40-SM1550-D	SFP+ 10 Gigabit Module (1550nm, 40km, LC)
SFP-XG-LX-SM1310-D	SFP+ 10 Gigabit Module (1310nm, 10km, LC)
SFP-XG-SX-MM850-D	SFP+ 10 Gigabit Module (850nm, 300m, LC)
SFP-XG-LH80-SM1550-D	SFP+ 10 Gigabit Module (1550nm, 80km, LC)
LSTM2STK	SFP+ cable 7m
LSWM1STK	SFP+ cable 0.65m
LSWM2STK	SFP+ cable 1.2m



Product ID	Product Description
LSWM3STK	SFP+ cable 3m
LSTM1STK	SFP+ cable 5m
SFP-XG-D-AOC-7M	SFP+ to SFP+7m AOC
SFP-XG-D-AOC-10M	SFP+ to SFP+10m AOC
SFP-XG-D-AOC-20M	SFP+ to SFP+20m AOC
SFP-25G-SR-MM850	25G SFP28 optical module (850nm, 100m, SR, MM, LC)
SFP-25G-LR-SM1310	25G SFP28 optical module (1310nm, 10km, LR, SM, LC)
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
QSFP-40G-LR4-WDM1300	QSFP+ 40G Optical Module (1310nm, 10km, LR4, LC)
QSFP-40G-BIDI-SR-MM850	QSFP+ 40G BIDI Optical Module (850nm, 100m, SR)
QSFP-40G-LR4L-WDM1300	QSFP+ 40G Optical Module (1310nm, 2km, LR4L, LC)
LSWM1QSTK0	40G QSFP+ 1m cable
LSWM1QSTK1	40G QSFP+ 3m cable
LSWM1QSTK2	40G QSFP+ 5m cable
QSFP-40G-D-AOC-7M	40G QSFP+ to 40G QSFP+7m AOC
QSFP-40G-D-AOC-20M	40G QSFP+ to 40G QSFP+20m AOC
QSFP-100G-LR4L-WDM1300	100G QSFP28 optical module (1310nm, 2km, LR4L, CWDM4, LC)
QSFP-100G-eSR4-MM850	100G QSFP28 optical module (850nm, 300m OM4, eSR4, MPO)
QSFP-100G-SR4-MM850	100G QSFP28 optical module (850nm, 100m OM4, SR4, MPO)
QSFP-100G-LR4-WDM1300	100G QSFP28 optical module (1310nm, 10km, LR4, WDM, LC)
QSFP-100G-D-AOC-7M	100G QSFP28 to 100G QSFP28 7m AOC
QSFP-100G-D-AOC-10M	100G QSFP28 to 100G QSFP28 10m AOC
QSFP-100G-D-AOC-20M	100G QSFP28 to 100G QSFP28 20m AOC ( Need be tested )
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
LSV-SL-S5830	Slide, slide assembly-HH3C4.150.0232MX-1U long slide-H3C S5830-52C-0-408mm
LSW-SL-A	Slide, slide assembly-HH3C4.150.0529MX-1U ultra-short slide-H3C S6820-56HF-0-



Product ID	Product Description
	117mm
CAB-CON-1.8m	Single cable-configured serial cable-1.8m-(D9 female)-(28UL20276(4P)(P296U))- (network port plug-8P8C)
CAB-Console-1.8m-W31R	Single Cable-Configuration Port Cable-1.8m-(RJ45P 8/8P)-(UL2725(3C28AWG)Black)- (USB AP 4P+PCBA)

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