H3C S6530X Series Advanced Aggregation 10GE Switches Datasheet

Release Date: Dec, 2023

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 series switches include 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 autosensing SFP+ 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 series switches implement 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 significant 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 hot-swappable 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.
- Supports FTP for system upgrade.

Precision Time Protocol (PTP)

H3C S6530X 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 S6530X 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.

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

Item	S6530X-24X8C	S6530X-48X8C
CPU	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
Latency	10GE:<3 (64byte/us) 100GE:<1.2 (64byte/us)	
Dimensions (H × W × 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	
OSPF Areas	128	
OSPF Adjacencies	512	
VRF Number	4K	
Interface number per VRF	4K	
Fan trays	5 hot swappable fan trays, invertible airflow	
Input voltage range	AC: Rated: 100 VAC to 240 VAC @ 50 Hz/60 Hz Max: 90 VAC to 264 VAC @ 47 Hz to 63 Hz	
	HVDC: 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	
Power consumption	MIN: Single AC: 76W; Dual AC: 83W.	MIN: Single AC: 76W; Dual AC: 83W.
	MAX: Single AC: 186W; Dual AC: 191W.	MAX: Single AC: 217W; Dual AC: 221W.
Operating temperature	-5°C to 45°C (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 & 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.

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

Software Specifications

Feature	S6530X Series Switches
VLAN	VLAN ID range 0 to 4095(Total 4096, 0 and 4095 are reserved) 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) Vlan mapping Static/Dynamic/Blackhole/Multiport unicast MAC MAC automatic learning and aging port-based/VLAN-based MAC learning limit MAC filter port isolation Loop detection (VLAN and VXLAN network) MVRP (Multiple VLAN Registration Protocol) GVRP (Generic VLAN Registration Protocol) 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/dispute loopback guard BPDU filter role/TC-BPDU transmission restriction LLDP (Link Layer Discovery Protocol) and LLDP-MED DCBX (Data Center Bridging Exchange Protocol) Broadcast/multicast/unknown unicast storm constrain Jumbo frame Store-and-forward (Default) Cut-through-forward
Ethernet link aggregation	static aggregation dynamic aggregation 10GE/25G/40GE/100GE port aggregation LACP (Link Aggregation Control Protocol) S-MLAG M-LAG (Multichassis Link Aggregation)
IP Services	Static/Dynamic/Gratuitous/proxy ARP ARP snooping/fast-reply/direct route advertisement/ping

Feature	S6530X Series Switches
	ARP attack detection ARP source suppression DHCP (Dynamic Host Configuration Protocol) DHCP Server/relay agent/client/snooping 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
Routing	Static routing, RIP, OSPF, IS-IS, and BGP IPv4/IPv6 dual stack IPv4/IPv6 ECMP (Equal-cost multi-path routing) IPv4/IPv6 PBR (Policy-based routing) IPv4/IPv6 Routing policy IPv6 static routing, RIPng, OSPFv3, IS-ISv6, and BGP4+ Pingv6, Telnetv6, FTPv6, TFTPv6, DNSv6, ICMPv6 Dual-stack PBR
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)

Feature	S6530X Series Switches
	Multicast policy and Multicast QoS
ACL/QoS	ACL (Access Control List) advanced ACL User-defined ACL Ingress and Egress ACL Ingress/Egress CAR Diff-Serv QoS Eight queues on a port 802.1P/DSCP Priority marking and remarking 802.1p, TOS, DSCP, and EXP priority mapping Flexible queue scheduling algorithms including SP, WRR, SP+WRR, WFQ, SP+WRR 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 MPLS L2VPN MPLS L3VPN MPLS Ping/Tracert MCE (Multi-VPN Instance Customer Edge) IPv6 MCE MPLS OAM SRv6
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 and implementations with TACACS+) 802.1X authentication Portal authentication MAC authentication Web authentication Triple authentication Port security SSH1.x and SSH2.0 (Secure Shell) SSL (Secure Sockets Layer)

Feature	S6530X Series Switches
	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) 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 Link aggregation VCT (virtual cable test) Smart-Link Secure boot ISSU (In-Service Software Upgrade)
Network Management	NQA (Network quality analyzer) iNQA (Intelligent Network Quality Analyzer)

Feature	S6530X Series Switches
	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 RESTful/RESTconf API EAA (Embedded Automation Architecture) Port mirroring SPAN (Switch Port Analyzer)/RSPAN (Remote SPAN) Flow mirroring NetStream/IPv6 NetStream sFlow Information center VCF (Virtual Converged Framework) CWMP (CPE WAN Management Protocol/TR-069) 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 Loading and upgrading through XModem/FTP/TFTP/SFTP/USB Embedded AC, maximum support management 2K AP iMC network management system SmartMC (embedded Smart Graphical Management Center) Support LLDP-MIB Support Entity MIB
Stacking	Intelligent Resilient Framework 2 (IRF2) (fast convergence within 50ms) 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/RESTconf API for automated network programming
Visualization	gRPC (Google remote procedure call)

Feature	S6530X Series Switches
	INT (Inband Telemetry) Flow group
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) IPCC (Intelligent Proactive Congestion Control) iNOF (Intelligent Lossless NVMe Over Fabric)
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 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	S6530X Series Switches
MAC address entries(max)	576K
VLAN (Active VLAN)	4094
VLAN interface	4094
IPv4 routing entries(max)	768K
IPv4 ARP entries(max)	94K
IPv4 ACL entries	Ingress: 26K Egress: 2K
IPv4 multicast L2 entries	8K
IPv4 multicast L3 entries	8K
IPv6 unicast routing entries(max)	144K
QOS forward queues	8
IPv6 ACL entries	Ingress: 13K Egress: 1K
IPv6 ND entries(max)	78K
IPv6 multicast L2 entries	8K
IPv6 multicast L3 entries	8K
Jumbo frame length	13312
Link group num	256
Max num in one link group	64
Max Stacking Member	9
Max Stacking Bandwidth	800Gbps

Standards and Protocols Compliance

Organization	Standards and Protocols
IEEE	802.1x Port based network access control protocol
	802.1ab Link Layer Discovery Protocol
	802.1ak MVRP and MRP
	802.1ax Link Aggregation
	802.1d Media Access Control Bridges

Organization	Standards and Protocols
	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 2374 An IPv6 Aggregatable Global Unicast Address Format
	RFC 2570 Introduction to Version 3 of the Internet-standard Network Management Framework
	RFC 2711 IPv6 Router Alert Option
	RFC 2787 Definitions of Managed Objects for the Virtual Router Redundancy Protocol
	RFC 2893 Transition Mechanisms for IPv6 Hosts and Routers
	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
	RFC 3019 MLDv1 MIB

Organization	Standards and Protocols
	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 3587 IPv6 Global Unicast Address Format
	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（NTPv4）
	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

Removable Components Matrix

Field Replace Unit	S6530X Series Switches
Removable power supplies	
PSR250-12A1	Supported (Power Panel Side Exhaust Airflow)
PSR450-12A1	Supported (Power Panel Side Exhaust 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

Product ID	Product Description
	Power Supplies
PSR250-12A1	250W AC Power Supply Module (Power Panel Side Exhaust Airflow)
PSR450-12A1	450W AC Power Supply Module (Power Panel Side Exhaust 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
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)

Product ID	Product Description
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
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

Product ID	Product Description
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-0-117mm
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)

Datasheet history

Description	Location	Date
Updated the Software Specifications	'Software Specifications'	December, 2023
Updated the Software Specifications	'Software Specifications'	August, 2024
Updated Features	'Features'	May, 2025

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