



H3C S3100V3-El Series FE&Gigabit Access Switches

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Product Overview

H3C S3100V3-EI Switch Series – A cost-effective, easy deployment and management access switching solution with fast or Giga PoE Ethernet ports that delivers entry level features for small-to-midsize businesses, which meet the requirements for SME access and enterprise desktop access.

H3C S3100V3-EI switch series include the following models:

- **S3100V3-10TP-EI**: 4 × 10/100BASE-TX ports, 4 × 10/100/1000BASE-T ports, 2 × 100/1000BASE-X SFP ports.
- **S3100V3-18TP-EI**: 8 × 10/100BASE-TX ports, 8 × 10/100/1000BASE-T ports, 2 × 100/1000BASE-X SFP ports.
- **S3100V3-18TP-EI-DC**: 8 × 10/100BASE-TX ports, 8 × 10/100/1000BASE-T ports, 2 × 100/1000BASE-X SFP ports.
- **S3100V3-28TP-EI**: 16 × 10/100BASE-TX ports, 8 × 10/100/1000BASE-T ports, 4 × 100/1000BASE-X SFP ports.
- **S3100V3-28TP-EI-DC**: $16 \times 10/100BASE-TX$ ports, $8 \times 10/100/1000BASE-T$ ports, $4 \times 100/1000BASE-X$ SFP ports.
- **S3100V3-10TP-PWR-EI**: 4 × 10/100BASE-TX ports, 4 × 10/100/1000BASE-T ports, 2 × 100/1000BASE-X SFP ports.
- S3100V3-20TP-PWR-EI: $8 \times 10/100$ BASE-TX ports, $8 \times 10/100/1000$ BASE-T ports, $4 \times 100/1000$ BASE-X SFP ports.
- S3100V3-20TP-PWR-EI-DC: $8 \times 10/100$ BASE-TX ports, $8 \times 10/100/1000$ BASE-T ports, $4 \times 100/1000$ BASE-X SFP ports.
- **S3100V3-28TP-PWR-EI**: 16 × 10/100BASE-TX ports, 8 × 10/100/1000BASE-T ports, 4 × 100/1000BASE-X SFP(Combo) ports
- **S3100V3-52TP-EI**: 32 × 10/100BASE-TX ports, 16 × 10/100/1000BASE-T ports, 4 × 100/1000BASE-X SFP ports.



S3100V3-10TP-EI S3100V3-18TP-EI-DC S3100V3-28TP-EI S3100V3-28TP-EI-DC



S3100V3-10TP-PWR-EI S3100V3-20TP-PWR-EI S3100V3-20TP-PWR-EI-DC S3100V3-28TP-PWR-EI S3100V3-52TP-EI

Features and benefits

High Performance and Multiple Options



H3C S3100V3-EI switch series all ports support wire speed forwarding, with a minimum of four GE uplinks and two FE/GE SFP fiber ports onboard making flexible choices for customers.

Software Defined Network (SDN)

- Software Defined Network (SDN) is an innovative network architecture that simplifies network
 management and reduces maintenance complexity by separating network control layer and network
 forwarding layer through Openflow. More importantly, it implements flexible network flow control and
 provides a well-defined network platform for core network application and innovation.
- The S3100V3-EI switch series supports a large network flow table. Combined with H3C SDN controller, it can easily implement a two-layer network architecture and quickly add functions in existing network in order to drastically reduce network management complexity while substantially lowers network maintenance cost.

Intelligent Resilient Framework 2 (IRF2)

H3C S3100V3-El switch series is pre-built with Intelligent Resilient Framework 2 (IRF2). IRF2 provides the following benefits:

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

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

Comprehensive Security Control

- H3C S3100V3-EI switch series supports innovative single-port multi-authentication function, the access authentication modes supported by different clients are different. For example, some clients can only perform MAC addresses Authentication (such as the printer terminal), and some user host for 802.1X authentication, and some user hosts only want to access through the Web portal authentication. In order to flexibly adapt to the multi-authentication requirements of the network environment, the S3100V3-EI switch series support single-port multi-authentication unified deployment.
- The S3100V3-EI switch series supports SSH V2 (Secure Shell V2) to secure information security, and strong authentication protect the Ethernet network switch from attacks such as IP address spoofing and clear text interception.
- ARP attack and ARP virus are major threats to LAN security, so the S3100V3-EI switch series comes
 with diverse ARP protection functions such as ARP Detection to challenge the legitimacy of client,
 validate the ARP packets, and set a speed limit for ARP to prevent ARP swarm attacks from targeting
 CPU.
- H3C S3100V3-El switch series supports EAD (End User Admission Domination) function. With the iMC (intelligent Management Centre) system, EAD integrates terminal security policies, such as anti-virus and patch update, network access control and access right control policies to form a cooperative security system. By checking, isolating, updating, managing, and monitoring access terminals, EAD changes to passive mode, single point network protection to active, comprehensive network protection, and changes separate management to centralized management, enhancing the network capability for preventing viruses, worms, and new threats.

Enhanced Manageability and Maintenance

- The H3C S3100V3-EI switch series makes switch management with ease with the support of SNMPv1/v2/v3, which can be managed by NM platforms, such as Open View and iMC. With CLI and Telnet, and with SSH 2.0 encryption, switch management security is enhanced.
- The S3100V3-EI switch series supports RSPAN mirroring, access ports traffic can be mirrored to core switches to carry out corresponding management, maintenance measures, and traffic of network services and applications is visible.
- The S3100V3-EI switch series supports VCT (Virtual Cable Test) function to locate network failure point



quickly. It also supports DLDP (Device Link Detection Protocol) technology to detect unidirectional links, which can automatically shut down the faulty port to avoid network problems.

Abundant Service Capabilities

- H3C S3100V3-EI switch series supports 802.3af/802.3at PoE function, provides maximum power of 30w per port for connected devices, such as IP phones, wireless APs, and high power cameras.
- H3C S3100V3-EI switch series supports flexible queue scheduling algorithms based on ports and queues, including strict priority (SP), weighted round Robin (WRR) and SP+WRR.
- H3C S3100V3-EI switch series supports abundant IPv6 management features, including IPv6 unicast address configuration, ICMPv6, IPv6 ND, IPv6-TCP, IPv6-TFTP, IPv6- Tracert. It also supports IPv6 functions, including IPv6 A CL, QoS, multicast and more.

Hardware Specifications

Feature	S3100V3-10TP- EI	S3100V3-18TP- EI	S3100V3-28TP- EI	S3100V3-52TP- EI	S3100V3-10TP- PWR-EI
Port Switching capacity	12.8Gbps	21.6Gbps	27.2Gbps	46.4Gbps	12.8Gbps
Box Switching capacity	128Gbps				
Packet forwarding rate	9.6 Mpps	16.2 Mpps	20.4 Mpps	34.8 Mpps	9.6Mpps
Dimensions	43.6 × 266 ×	43.6 × 266 ×	43.6 × 440 ×	43.6 × 440 ×	43.6 × 330 ×
$(H \times W \times D)$	161 mm	161 mm	160 mm	230 mm	230 mm
Weight	≤ 1.5 kg	≤ 1.5 kg	≤ 2.5 kg	≤ 3.5 kg	≤3 kg
10/100Base-TX port	4	8	16	32	4
10/100/1000Base- T port	4	8	8	16	4
SFP port	2	2	4	4	2
Input voltage range	AC input (not supported by the S3100V3-18TP-EI-DC switch/ S3100V3-28TP-EI-DC switch/ S3100V3-20TP-PWR-EI-DC switch) - Rated voltage: 100 VAC to 240 VAC @ 50 or 60 Hz - Max voltage: 90 VAC to 264 VAC @ 47 to 63 Hz DC input from a –48 VDC power source in the equipment room or an H3C RPS1600-A (supported only by the S3100V3-18TP-EI-DC switch/ S3100V3-28TP-EI-DC switch/ S3100V3-20TP-PWR-EI-DC switch) - Rated voltage: –48 VDC to –60 VDC - Max voltage: –36 VDC to –72 VDC				



Flash/SDRAM	256MB/512MB				
Power					
consumption	7 W	9 W	11 W	20 W	13 W
(Idle)					
Power					150W (including
consumption	11 W	16 W	19 W	33 W	125w PoE)
(full configuration)					123W FOL)
Heat dissipation	No fan, natural	No fan, natural	No fan, natural	Fixed fan	No fan, natural
rieat dissipation	cooling	cooling	cooling	rixed fail	cooling
Operating	0°C to 45°C (32°F to 113°F)				
temperature					
Operating	100/ Dilto 000/ Bill non condensing				
humidity	10% RH to 90% RH, non-condensing				

Hardware Specifications (continued)

Item	S3100V3-18TP- EI-DC	S3100V3-20TP- PWR-EI-DC	S3100V3-28TP- EI-DC	S3100V3-20TP- PWR-EI	S3100V3-28TP- PWR-EI
Port Switching capacity	21.6Gbps	25.6Gbps	27.2Gbps	25.6Gbps	27.2Gbps
Box Switching capacity	128Gbps				
Packet forwarding rate	16.2Mpps	19.2Mpps	20.4Mpps	19.2Mpps	20.4Mpps
Dimensions	43.6 × 266 ×	43.6 × 330 ×	43.6 × 440 ×	43.6 × 330 ×	43.6 × 440 ×
$(H \times W \times D)$	161 mm	230 mm	160 mm	230 mm	260 mm
Weight	≤ 1.5 kg	≤2.5 kg	≤ 2.5 kg	≤3 kg	≤4.5 kg
10/100Base-TX port	8	8	16	8	16
10/100/1000Base- T port	8	8	8	8	12
SFP port	2	4	4	4	4 (Combo)
Input voltage range	AC input (not supported by the S3100V3-18TP-EI-DC switch/ S3100V3-20TP-PWR-EI-DC switch) - Rated voltage: 100 VAC to 240 VAC @ 50 or 60 Hz - Max voltage: 90 VAC to 264 VAC @ 47 to 63 Hz H3C RPS1600-A input (supported only by an S3100V3-28TP-PWR-EI switch) - Rated voltage: -54 VDC to -57 VDC - Max voltage: Single DC input: -44 VDC to -60 VDC AC and DC inputs: -54 VDC to -57 VDC				



	DC input from a –48 VDC power source in the equipment room or an H3C RPS1600-A (supported only by the S3100V3-18TP-EI-DC switch/ S3100V3-28TP-EI-DC switch/ S3100V3-20TP-PWR-EI-DC switch) - Rated voltage: –48 VDC to –60 VDC - Max voltage: –36 VDC to –72 VDC				
Flash/SDRAM	256MB/512MB				
Power consumption (Idle)	19 W	21 W	20 W	18 W	26 W
Power consumption (full configuration)	25 W	220 W (including 185w PoE)	27 W	220W (including 170w PoE)	439W (including 370w PoE)
Heat dissipation	Fixed fan	Fixed fan	Fixed fan	Fixed fan	Fixed fan
Operating temperature	0°C to 45°C (32°F to 113°F) -60m-5000m altitude: From 0m, the maximum operating temperature reduce by 0.33°C for every time 100 the altitude increases by 100m.				
Operating humidity	10% RH to 90% RH, non-condensing				

Software Specifications

Features	S3100V3-EI switch series
	GE port aggregation
Port	Dynamic aggregation
aggregation	Static aggregation
	Cross-device aggregation
Broadcast/Mul	Storm suppression based on port bandwidth percentage
ticast/Unicast	Storm suppression based on PPS
storm	Storm suppression based on BPS
suppression	Broadcast traffic/Multicast traffic/Unknown unicast traffic suppression
	Distributed device management, distributed link aggregation, and distributed resilient routing
IRF2	Stacking through standard Ethernet interfaces
	Local device stacking and remote device stacking
Jumbo frame	10000bytes
MAC address	16K MAC address entries
table	Static MAC address
table	Blackhole MAC address
	Port-based VLAN (up to 4094 VLANs)
	MAC-based VLAN
VLAN	Protocol-based VLAN
	QinQ and selective QinQ
	VLAN mapping
	Voice VLAN



	MVRP
	DHCP Client
DHCP	DHCP Snooping
	DHCP Snooping option82
	DHCP Relay
	DHCP Server
	DHCP auto-config
	1K IPV4 routing entries
_	Static routing
IP routing	RIPv1/v2 and RIPng
	OSPFv1/v2 and OSPFv3
	IGMP Snooping v1/v2/v3
Multicast	MLD Snooping v1/v2
	Multicast VLAN
	STP/RSTP/MSTP/PVST
Layer 2 ring	Smart Link
network	RRPP
protocol	G.8032 ERPS (Ethernet Ring Protection Switching)
	Packet filtering at Layer 2 through layer 4 Traffic classification based on source MAC addresses,
	destination MAC addresses, source IPv4/IPv6 addresses
ACL	Time range-based ACL
	VLAN-based ACL
	Bidirectional ACL
	Port rate limit (receiving and transmitting)
	Packet redirection
	Committed access rate (CAR)
QoS	Eight output queues on each port
	Flexible queue scheduling algorithms based on ports and queues, including SP, WRR and
	SP+WRR
	802.1p DSCP remarking
	Port mirroring
Mirroring	RSPAN
	Hierarchical user management and password protection
	AAA authentication support
	RADIUS authentication
	HWTACACS
Security	SSH2.0
	Port isolation
	802.1X authentication, centralized MAC authentication
	Port security
	IP Source Guard
	HTTPs
	EAD
IEEE	IEEE 802.3x

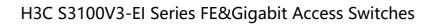


	IEEE 000 0
	IEEE 802.3ad
	IEEE 802.3af
	IEEE 802.3at
	IEEE 802.3bz
	IEEE 802.1p
	IEEE 802.1x
	IEEE 802.1q
	IEEE 802.1d
	IEEE 802.1w
	IEEE 802.1s
	Loading and upgrading through XModem/FTP/TFTP
	Configuration through CLI, Telnet, and console port
	SNMPv1/v2/v3 and Web-based NMS
	Remote monitoring (RMON) alarm, event, and history recording
Management	IMC NMS
and	System log, alarming based on severities, and output of debugging information
maintenance	NTP
	Ping, Tracert
	Virtual cable test (VCT)
	Device link detection protocol (DLDP)
	Loopback-detection
	FCC Part 15 Subpart B CLASS A
	ICES-003 CLASS A
	VCCI CLASS A
	CISPR 32 CLASS A
	EN 55032 CLASS A
	AS/NZS CISPR32 CLASS A
	CISPR 24
EMC	EN 55024
	EN 61000-3-2
	EN 61000-3-3
	ETSI EN 300 386 for telecommunications center installations
	GB/T 9254
	YD/T 993
	ETSI EN 300 386
	UL 60950-1
	CAN/CSA C22.2 No 60950-1
	IEC 60950-1
Safety	EN 60950-1
Jaicty	AS/NZS 60950-1
	FDA 21 CFR Subchapter J
	GB 4943.1
	4545.1



Ordering Information

Product ID	Product Description
LC 2400V2 40TD 51 C1	H3C S3100V3-10TP-EI L2 Ethernet Switch with 4*10/100BASE-T Ports,
LS-3100V3-10TP-EI-GL	4*10/100/1000BASE-T Ports, and 2*1000BASE-X SFP Ports,(AC)
LS-3100V3-18TP-EI-GL	H3C S3100V3-18TP-EI L2 Ethernet Switch with 8*10/100BASE-T Ports,
	8*10/100/1000BASE-T Ports, and 2*1000BASE-X SFP Ports,(AC)
LS-3100V3-28TP-EI-GL	H3C S3100V3-28TP-EI L2 Ethernet Switch with 16*10/100BASE-T Ports,
	8*10/100/1000BASE-T Ports, and 4*1000BASE-X SFP Ports,(AC)
LS-3100V3-10TP-PWR-EI-	H3C S3100V3-10TP-PWR-EI L2 Ethernet Switch with 4*10/100BASE-T PoE+ Ports,
GL	4*10/100/1000BASE-T PoE+ Ports(AC 125W), and 2*1000BASE-X SFP Ports,(AC)
LS-3100V3-20TP-PWR-EI-	H3C S3100V3-20TP-PWR-EI L2 Ethernet Switch with 8*10/100BASE-T PoE+ Ports,
GL	8*10/100/1000BASE-T PoE+ Ports(AC 185W), and 4*1000BASE-X SFP Ports,(AC)
LS-3100V3-28TP-PWR-EI-	H3C S3100V3-28TP-PWR-EI L2 Ethernet Switch with 16*10/100BASE-T PoE+
GL	Ports, 8*10/100/1000BASE-T PoE+ Ports(AC 370W,DC 740W),4*GE Combo
	Ports,and 4*1000BASE-X Ports,(AC/DC)
LS-3100V3-52TP-EI-GL	H3C S3100V3-52TP-EI L2 Ethernet Switch with 32*10/100BASE-T Ports,
	16*10/100/1000BASE-T Ports, and 4*1000BASE-X SFP Ports,(AC)
LS-3100V3-18TP-EI-DC-GL	H3C S3100V3-18TP-EI-DC L2 Ethernet Switch with 8*10/100BASE-T Ports,
	8*10/100/1000BASE-T Ports, and 2*1000BASE-X SFP Ports,(DC)
LS-3100V3-20TP-PWR-EI-	H3C S3100V3-20TP-PWR-EI-DC L2 Ethernet Switch with 8*10/100BASE-T PoE+
DC-GL	Ports, 8*10/100/1000BASE-T PoE+ Ports, and 4*1000BASE-X SFP Ports,(DC)
LS-3100V3-28TP-EI-DC-GL	H3C S3100V3-28TP-EI-DC L2 Ethernet Switch with 16*10/100BASE-T PoE+ Ports,
	8*10/100/1000BASE-T PoE+ Ports,4*GE Combo Ports, and 4*1000BASE-X Ports,
	(DC)
RPS1600-A-GL	H3C RPS1600-A Redundant Power System
AD162M56-1M1A-GL	Power Supply Unit with 800W (AC 110V) or 1600W (AC 220V) (optional)
CAB-RPS PoE-2m-JD5	Cable A with JD5 type connector (optional)
CAB-RPS Non PoE-2m- JD5-A	Cable with JD5-A type connector for Non-PoE switches (optional),2*2mm^2
CAB-RPS Non PoE-2m-JD5	Cable B with JD5 type connector (optional),2*2mm^2
CAB-CON-1.8m	Single Cable, Console Serial Port Cable, 1.8m, D9F, 28UL 20276 (4P) (P296U), MPH-8P8C
	11 Inch Chassis Mount Angle Component, SOHO/Low-End Access, Network
SOHO-SWITCH-FL-01	Terminal Shared
	13 Inch Chassis Mount Angle Component, SOHO/Low-End Access, Network
SOHO-SWITCH-FL-02	Terminal Shared
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-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 Stacking Cable (150cm,including two 1000BASE-T SFP module and one
SFP-STACK-Kit	stacking cable)







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