S4600-X-SI
L2+ 10G Access Switch

Product Overview

S4600-X is L2 10G uplink intelligent switch designed for carrier and MAN networks. It supports comprehensive QoS, enhanced VLAN functions (Dynamic VLAN, Voice VLAN, QinQ, N:1 VLAN Translation etc), Ethernet Ring Protection Protocol (G.8032), classified bandwidth control, intelligent security control, OAM(Operations, Administration and Maintenance), manageability functions and Triple-Play services which fulfill the network requirements demanded by carrier network, MAN access. S4600-X Series switch offers green features like Fan-less design feature, which can dramatically lower power consumption, achieve green energy and save the cost for the carrier and MAN users.

S4600-X is equipped with the full GE ports and 4/6 SFP+ uplink ports, it integrates advanced management and security functions to provide performance and scalability.

Appearance	Description
S4600-28X-SI	• 24 x 10/100/1000Base-T + 4 x 10GE(SFP+) • 1 Console, 1 Reset, 1 USB port • AC power supply • Switching capacity: 128Gbps • Forwarding rate: 95Mpps
S4600-28X-P-SI	• 24 x 10/100/1000Base-T + 4 x 10GE(SFP+) • 1 Console, 1 Reset, 1 USB port • PoE+, up to 370w • AC power supply • Switching capacity: 128Gbps • Forwarding rate: 95Mpps

 S4600-52X-SI	• 48 x 10/100/1000BaseT + 4 x 10GE(SFP+) • 1 Console, 1 Reset, 1 USB port, 1 10/100MBase-T Management port • AC power supply • Switching capacity: 176Gbps Forwarding rate: 131Mpps
 S4600-52X-P-SI	• 48 x 10/100/1000BaseT + 4 x 10GE(SFP+) • 1 console, 1 USB, 1 reset, 1 RJ45 management port • PoE+ up to 740w • Switching capacity: 176Gbps • Forwarding rate: 131Mpps
 S4600-12X-SI	• 8 x 10/100/1000Base-T + 4 x 10GE(SFP+) • 1 Console, 1 USB port • AC power supply • Switching capacity: 96Gbps • Forwarding rate: 71.4Mpps
 S4600-12X-P-SI	• 8 x 10/100/1000Base-T + 4 x 10GE(SFP+) • 1 Console, 1 USB port • PoE+, up to 125w • AC power supply • Switching capacity: 96Gbps • Forwarding rate: 71.4Mpps
 S4600-54X-SI	• 48 x 10/100/1000BaseT + 6x 10GE(SFP+) • 1 console • AC power supply • Switching capacity: 216Gbps • Forwarding rate:161Mpps
 S4600-54X-P-SI	• 48 x 10/100/1000BaseT + 6x 10GE(SFP+) • 1 Console • PoE+ up to 740w • Switching capacity: 216Gbps • Forwarding rate: 161Mpps

Main Features

10G Uplink Access Switch
Equipped with the full GE ports and SFP+ uplink ports, S4600-X provides a solid foundation and more than enough bandwidth for your business applications today and in the future.

L3 Forwarding
S4600-X supports L3 forwarding allowing you to segment your network into workgroups and communicate across VLANs without degrading application performance.

VSF (Virtual Switch Framework)
Virtual Switch Framework can virtualize multiple DCN switches into one logical device, achieving the sharing of information and data tables between different switches. The performance and ports density of the virtualized device is greatly enlarged by times under VSF. VSF also simplifies management work for the network administrator and provides more reliability.

Enhanced Security
IEEE **802.1X** port-based access control ensures all users are authorized before being granted access to the network. User authentication is carried out using any standard-based RADIUS server.

Access Control Lists (**ACL**s) can be used to restrict access to sensitive network resources by denying packets and forward by different policies. User-defined ACL provides more flexible access control for users.

S4600-X supports **DHCP snooping**, which prevents DHCP attacks and illegal DHCP SERVER by setting trust ports and untrust ports. With DHCP Snooping binding and option82 enabled, it can combine modules like dot1x and ARP, or implement user-access-control independently.

S4600-X supports abundant L2 security features such as **ARP guard**, **Anti-ARP scanning**, and other ARP and **MAC Security** technology to protect network security and reliability.

High Reliability
S4600-X supports 4/6 10G uplink ports, which could be designed to offer redundant uplinks with various ring protection applications, effectively raised the expansibility and performance of the network.

G.8032 provides sub-50ms protection and recovery switching for Ethernet traffic in a carrier ring topology. S4600-X supports G.8032 v2 and can be deployed in a variety of complex network topologies including single ring, tangent ring, intersecting rings, double rings, and other home networking.

Abundant Multicast Features
S4600-X also supports **MVR** (Multicast VLAN Register), selectively allows traffic to cross between different VLANs for bandwidth and security reasons. With the MVR Trunk function, which could associate multicast VLAN to trunk port, S4600-X combines the VLAN data into the same link, saving lots of resources for users.

S4600-X could prevent multicast traffic from flooding via IGMP Snooping, while multicast traffic is only forwarded to ports associated with multicast devices.

Specifications

Non-PoE models:

Item	S4600-12X-SI	S4600-28X-SI(R2)	S4600-52X-SI	S4600-54X-SI
Ports	8 x 10/100/1000Base-T + 4 x 1/10GE(SFP+) Auto-MIDX	24 x 10/100/1000Base-T + 4 x 1/10GE(SFP+) Auto-MIDX	48 x 10/100/1000Base-T + 4 x 1/10GE(SFP+) Auto-MIDX	48 x 10/100/1000Base-T + 6 x 1/10GE(SFP+) Auto-MIDX
Management port	1x Console port	1x Console port	1x Console port	1x Console port
	1x USB2.0 interface	1x USB2.0 interface	1x USB2.0 interface	-
	-	1x Reset key	1x Reset key	-
Performance				
Switching Capacity	96Gbps	128Gbps	176Gbps	216Gbps
Forwarding Rate	71.4Mpps	95Mpps	131Mbps	161Mpps
MAC ADDRESS	16K	16K	16K	32K
Jumbo Frame	10K bytes	10K bytes	10K bytes	12K bytes
Packet Buffer	12MBits	12MBits	24MBits	16MBits
ACL Table	512	512	512	3K
Queues per port	8	8	8	8
VLAN TABLE	4K	4K	4K	4K
Physical				
Dimension(W×H×D)	266mm x 44mm x 161mm	440mm x 44mm x 170mm	440mm x44mm x280mm	440mm x44mm x260mm
Power Input	100~240VAC, 50~60Hz	100~240VAC, 50~60Hz	100~240VAC, 50~60Hz	100~240VAC, 50~60Hz
Power Consumption	<15W	21W	<50W	<54W
Cooling	Passive	Passive	Active	Active
Temperature	Working 0°C~50°C, Storage -40°C~70°C	Working 0°C~50°C, Storage -40°C~70°C	Working 0°C~50°C, Storage -40°C~70°C	Working 0°C~50°C, Storage -40°C~70°C
Relative Humidity	5%~95%, non-condensing	5%~95%, non-condensing	5%~95%, non-condensing	5%~95%, non-condensing
EMC Safety	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS
PoE	NA	NA	NA	NA
Main Features				
Forwarding	Storage and Forwarding			
VLAN	Port-based VLAN, IEEE802.1Q, private VLAN, Protocol VLAN, Voice VLAN, MAC VLAN Normal QinQ, Flexible QinQ VLAN Translation, N:1 VLAN Translation			
L3 Features	Static Routing, PBR			
DHCP	IPv4/IPv6 DHCP Client, IPv4/IPv6 DHCP Relay Option 82 IPv4/IPv6 DHCP Snooping, IPv4/IPv6 DHCP Server			
Reliability	Spanning Tree	802.1D STP, 802.1W RSTP, 802.1S MSTP Root Guard, BPDU Guard, BPDU Forwarding, TCN filtering		
	LACP	128 groups / 8 ports		
	L2 Ring Protection	MRPP ERPS (G.8032) Loopback Detection Fast Link		

| Item	S4600-12X-SI	S4600-28X-SI(R2)	S4600-52X-SI	S4600-54X-SI
Security	IP ACL, MAC ACL, User-Defined ACL Time Range ACL ACL rules can be configured to port, VLAN Storm Control based on packets Port Security, MAC Limit based on VLAN and Port Anti-ARP-Spoofing, Anti-ARP-Scan, ARP Binding DAI IEEE 802.1x Authentication, Authorization, Accounting Radius, TACACS+			
Multicast	IGMP v1/v2/v3 snooping, IGMP Proxy, IGMP v3 MLD v1/v2 snooping			
QoS	8 Queues Per Port Bandwidth Control Flow Redirect Classification based on ACL, VLAN ID, COS, TOS, DSCP, Policing Based on Port and VLAN Single Rate single barrel double color for Policing Match the IP fragmentation of a message			
Maintenance and Operation Management	TFTP/FTP CLI, Telnet, Console Web/SSL (IPv4/IPv6) SSH (IPv4/IPv6) SNMPv1/v2/v3 SNMP Trap Public & Private MIB interface Ping, Trace Route Radius Authentication Syslog (IPv4/IPv6) SNTP/NTP (IPv4/IPv6) Dual IMG, Multiple Configuration Files Port Mirror, RSPAN sFlow OAM EFM VCT, DDM ULDP (like Cisco UDLD) LLDP/LLDP MED			

PoE models:

Item	S4600-12X-P-SI	S4600-28X-P-SI	S4600-52X-P-SI	S4600-54X-P-SI
Ports	8 x 10/100/1000Base-T + 4 x 1/10GE(SFP+) Auto-MIDX	24 x 10/100/1000Base-T + 4 x 1/10GE(SFP+) Auto-MIDX	48 x 10/100/1000Base-T + 4 x 1/10GE(SFP+) Auto-MIDX	48 x 10/100/1000Base-T + 6 x 1/10GE(SFP+) Auto-MIDX
Management port	1x Console port 1x USB2.0 interface -	1x Console port 1x USB2.0 interface 1x Reset key	1x Console port 1x USB2.0 interface 1x MGMT	1x Console port - -
Performance				
Switching Capacity	96Gbps	128Gbps	176Gbps	216Gbps
Forwarding Rate	71.4Mpps	95Mpps	131Mbps	161Mpps
MAC ADDRESS	16K	16K	16K	32K
Jumbo Frame	10K bytes	10K bytes	10K bytes	12K bytes
Packet Buffer	12MBits	12MBits	24MBits	16MBits
ACL Table	512	512	512	3K
Queues per port	8	8	8	8
VLAN TABLE	4K	4K	4K	4K
Physical				
Dimension(W×H×D)	330mm x 44mm x 219mm	440mm x 44mm x 300mm	440mm x44mm x320mm	440mm x44mm x320mm
Power Input	100~240VAC, 50~60Hz	100~240VAC, 50~60Hz	100~240VAC, 50~60Hz	100~240VAC, 50~60Hz
Power Consumption	<150W	<420W	<897W	<800W
Cooling	Passive	Active	Active	Active
Temperature	Working 0°C~50°C, Storage -40°C~70°C	Working 0°C~50°C, Storage -40°C~70°C	Working 0°C~50°C, Storage -40°C~70°C	Working 0°C~50°C, Storage -40°C~70°C
Relative Humidity	5%~95%, non-condensing	5%~95%, non-condensing	5%~95%, non-condensing	5%~95%, non-condensing
EMC Safety	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS
PoE	IEEE 802.3af POE (15.4W) IEEE 802.3at POE+ (30W) PoE output 125w	IEEE 802.3af POE (15.4W) IEEE 802.3at POE+ (30W) PoE output 370w	IEEE 802.3af POE (15.4W) IEEE 802.3at POE+ (30W) PoE output 740w	IEEE 802.3af POE (15.4W) IEEE 802.3at POE+ (30W) PoE output 740w

Main Features		
Forwarding		Storage and Forwarding
VLAN		Port-based VLAN, IEEE802.1Q, private VLAN, Protocol VLAN, Voice VLAN, MAC VLAN Normal QinQ, Flexible QinQ VLAN Translation, N:1 VLAN Translation
L3 Features		Static Routing, PBR
DHCP		IPv4/IPv6 DHCP Client, IPv4/IPv6 DHCP Relay Option 82 IPv4/IPv6 DHCP Snooping, IPv4/IPv6 DHCP Server
Reliability	Spanning Tree	802.1D STP, 802.1W RSTP, 802.1S MSTP Root Guard, BPDU Guard, BPDU Forwarding, TCN filtering
	LACP	128 groups / 8 ports
	L2 Ring Protection	MRPP ERPS (G.8032) Loopback Detection Fast Link

Item	S4600-12X-P-SI	S4600-28X-P-SI	S4600-52X-P-SI	S4600-54X-P-SI
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Multicast	IGMP v1/v2/v3 snooping, IGMP Proxy, IGMP v3 MLD v1/v2 snooping			
QoS	8 Queues Per Port Bandwidth Control Flow Redirect Classification based on ACL, VLAN ID, COS, TOS, DSCP, Policing Based on Port and VLAN Single Rate single barrel double color for Policing Match the IP fragmentation of a message			
Maintenance and Operation Management	TFTP/FTP CLI, Telnet, Console Web/SSL (IPv4/IPv6) SSH (IPv4/IPv6) SNMPv1/v2/v3 SNMP Trap Public & Private MIB interface Ping, Trace Route Radius Authentication Syslog (IPv4/IPv6) SNTP/NTP (IPv4/IPv6) Dual IMG, Multiple Configuration Files Port Mirror, RSPAN sFlow OAM EFM VCT, DDM ULDP (like Cisco UDLD) LLDP/LLDP MED			

Application

S4600-X-SI provide Gigabit access with 10G uplink in a Campus / ISP network
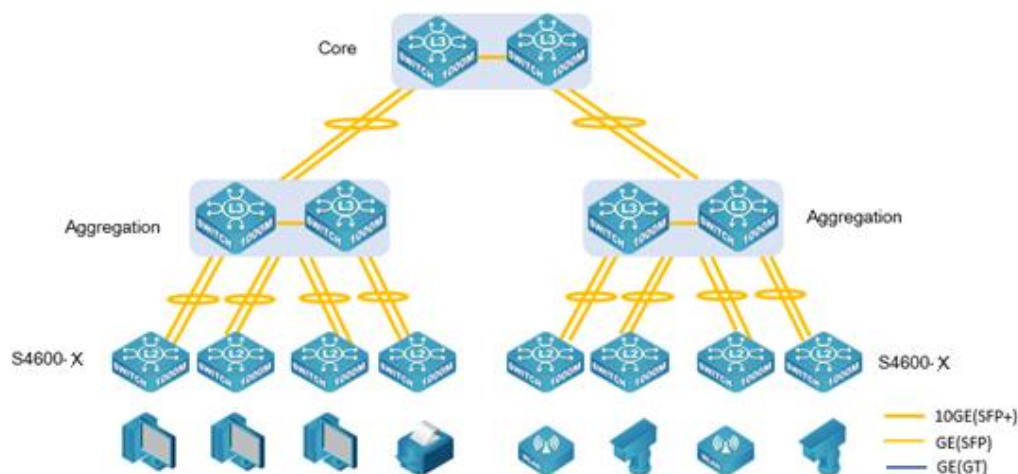
Order Information

Product	Description
S4600-12X-SI	L2+ Full Gigabit Access Switch with 8* 10/100/1000Base-T and 4* 10GE(SFP+) ports, static routing, 1 fixed AC power
S4600-12X-P-SI	L2+ Full Gigabit Access Switch with 8* 10/100/1000Base-T PoE and 4* 10GE(SFP+) ports, static routing, 1 fixed AC power, PoE output up to 125w
S4600-28X-SI	L2+ Full Gigabit Access Switch with 24* 10/100/1000Base-T and 4 *10GE(SFP+) ports, static routing, 1 fixed AC power
S4600-28X-P-SI	L2+ Full Gigabit Access Switch with 24 *10/100/1000Base-T PoE and 4 *10GE(SFP+) ports, static routing, 1 fixed AC power, PoE output up to 370w
S4600-52X-SI	L2+ Full Gigabit Access Switch with 48* 10/100/1000Base-T and 4 *10GE (SFP+) ports, static routing, 1 fixed AC power
S4600-52X-P-SI	L2+ Full Gigabit Access Switch with 48 *10/100/1000Base-T PoE and 4 *10GE(SFP+) ports, static routing, 1 fixed AC power, PoE output up to 740w
S4600-54X-SI	L2+ Full Gigabit Access Switch(48*10/100/1000Base-T + 6* 10G SFP+), AC power, static routing
S4600-54X-P-SI	L2+ PoE Full Gigabit Access Switch(48*10/100/1000Base-T + 6* 10G SFP+), AC power, static routing, PoE af/at, 740W PoE power