

S5750E-SI Series L3 Lite Gigabits Dual Stack Intelligent Switch Datasheet



■ Overview

S5750E-SI Series is L3 Lite Gigabits intelligent switch designed for carrier and MAN networks. It supports comprehensive QoS, enhanced VLAN functions (VLAN VPN, 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. S5750E-SI Series switch offers green features like IEEE 802.3az (Energy Efficient Ethernet), Fan-less design and Smart Fan feature, which can dramatically lower power consumption, achieve green energy and save the cost for the carrier and MAN users. Equipped with the full GE ports and 4 SFP/SFP+ uplink ports, the series integrates advanced management and security functions to provide performance and scalability.

■ Main Features

➤ Green Energy

- S5750E-SI series complies with **IEEE 802.3az** (Energy-Efficient Ethernet) standard, dramatically lower power consumption
- With **Innovative port-LED Shut-off** function, the user can automatically set the switch port-LED UP or DOWN at a specified time period according to their needs to achieve functional, energy-saving correct results.
- Full account of low noise requirements of the environment, S5750E-28P-SI and S5750E-28X-SI use **Fanless Design** and

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other models use **Smart Fan** strategies to control fan speed according to real-time temperature monitoring system which can effectively reduce speed, extend fan life and reduce noise pollution.

➤ Simple and Flexible Operation and Maintenance

- **Dying GASP.** An alarm will be triggered to remote SNMP network management platform when the system power is lost. This feature offer user-friendly operation and maintenance for the user.
- Full Ethernet **OAM** technology (IEEE802.3ah/802.1ag*), VCT, DDM (Digital Diagnostic Monitoring) and other features achieve rapid detection of the network failures; reduce operation and maintenance difficulty.
- ERSPAN (Encapsulated Remote Switched Port Analyzer) technology mirrors traffic through the GRE tunnel technology which simplifies the configuration, helps network administrators to manage remote devices conveniently.

➤ Enhanced Security

- S5750E-SI series provides a variety of security mechanisms like SYN Flood, Land, ICMP Flood attack prevention and other DOS class technology, BPDU Guard and Root Guard which avoid accidental topology loops and prevent illegal edge devices become root to cause unnecessary flapping.
- 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 (**ACLs**) 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.
- S5750E-SI series support **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.
- S5750E-SI series supports much more 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

- S5750E-SI series supports 4 Gigabit or 10Gigabit uplink ports, which could be designed to offer redundant uplinks with various ring protection applications, effectively raised the expansibility and performance of network.
- **G.8032** provides sub-50ms protection and recovery switching for Ethernet traffic in a carrier ring topology. S5750E-SI series 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.
- **Multi-process MSTP.** When a new access ring can be implemented through creating a new process of MSTP, the new ring does not affect the existing traffic. And each process may run different spanning tree protocol.
- **DCN EMVTE** technology (Enhanced Multi-VLAN subnet Traffic Engineering) is a multi-link backup and load balancing solution based on multiple VLAN subnets for dual homing network. It can achieve faster switching and convergence of the uplink

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through ULPP (Uplink Protection Protocol) and ULSM (Uplink State Monitor) protocol so that network performance is guaranteed.

➤ High adaptability VLAN Features

- S5750E-SI series supports 802.1Q and port based VLAN as well as MAC based VLAN, Voice VLAN and Protocol VLAN.
- Abundant QinQ technology including **Normal QinQ**, **Selective QinQ**, and **Flexible QinQ**, gives users maximum freedom to configure QinQ policy.
- **N:1 VLAN Translation** feature can translate multiple VLAN tags in the frames from access ports into one specified VLAN Tag. It provides a strong technical support for QoS policy convergence.

➤ Abundant Multicast Features

- S5750E-SI series also supports **MVR** (Multicast VLAN Register), selectively allows traffic to cross between different VLANs for bandwidth and security reasons. With MVR Trunk function, which could associate multicast VLAN to trunk port, S5750E-SI series combines the VLAN data into the same link, saving lots of resources for users.
- S5750E-SI series could prevent multicast traffic from flooding via IGMP Snooping, while multicast traffic is only forwarded to ports associated to multicast devices.

➤ POE+ support

- The S5750E-28P-P-SI, S5750E-28X-P-SI and S5750E-52X-P-SI can support PoE (Power over Ethernet) technology and provide remote power to wireless AP, IP phone and Network Camera. The network can help administrators to easily deploy cable.
- With both 802.3af and 802.3at support, the S5750E-28P-P-SI, S5750E-28X-P-SI and S5750E-52X-P-SI can support 24 / 24 / 48 port PoE at same time and the MAX power of each port up to 15.4W or 30W . The product can define the power of each port to save the power and set port priority for each port.
- Total PoE power 370W / 370W / 740W

➤ VSF(Virtual Switch Framework)

- Virtual Switch Framework could virtualized multiple DCN switches into one logical device, achieves the sharing of information and data tables between different switches. The performance and ports density of virtualized device are greatly enlarged by times under VSF. VSF also provides simplified management work for network administrator and more reliability.

■ Specifications

🚦 Models with 1G uplink and S5750E-16X-SI

Item	S5750E-28P-SI	S5750E-52P-SI	S5750E-28P-P-SI	S5750E-16X-SI
Management Port	1 Console port	1 Console port	1 Console port	1 Console port

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Item	S5750E-28P-SI	S5750E-52P-SI	S5750E-28P-P-SI	S5750E-16X-SI
Ports	24 x 10/100/1000Base-T + 4 x 1000Base-X (SFP)	48 x 10/100/1000Base-T + 4 x 1000Base-X (SFP)	24 x 10/100/1000Base-T + 4 x 1000Base-X (SFP)	16 x 10GbE(SFP+)
Performance				
Switching Capacity	56Gbps	104Gbps	56Gbps	320G
Forwarding Rate	42Mpps	78Mpps	42Mpps	238Mpps
MAC ADDRESS	16K	16K	16K	16K
Jumbo Frame	9K	9K	9K	9K
ACL Table	1k	1k	1k	1k
Route Table IPv4 / IPv6 shared	128 / 128	128 / 128	128 / 128	64 / 64
Queues per port	8	8	8	8
VLAN TABLE	4K	4K	4K	4K
Physical				
Dimension(WxHxD)	443mm x 44mm x 220mm	443mm x 44mm x 280mm	443mm x 44mm x 330mm	440mm x 44mm x 240mm
weight	2.33kg±0.1kg	3.90kg±0.1kg	5.5kg±0.1kg	3.1kg±0.1kg
Power Input	100~240VAC, 50~60Hz	100~240VAC, 50~60Hz	100~240VAC, 50~60Hz	AC: 100~240VAC, 50~60Hz DC: Input -48V ~ -60V
Power Consumption	20W	37W	420W	23.7W
Temperature	Working 0°C~50°C, Storage -40°C~70°C			
Relative Humidity	5%~95%,non-condensing			
EMC safety	CE, RoHS			
PoE	NA	NA	IEEE 802.3af POE(15.4W) IEEE 802.3at POE+ (30W) Global / port POE control Total PoE power: 370W	NA
Main Features				
Forwarding	Storage and Forwarding			

Item	S5750E-28P-SI	S5750E-52P-SI	S5750E-28P-P-SI	S5750E-16X-SI
VLAN	Port-based VLAN IEEE802.1Q private VLAN Protocol VLAN Voice VLAN MAC VLAN Normal QinQ, Selective QinQ, Flexible QinQ VLAN Translation, N:1 VLAN Translation			
DHCP	IPv4/IPv6 DHCP Client, IPv4/IPv6 DHCP Relay Option 82, Option 37/38 IPv4/IPv6 DHCP Snooping, IPv4/IPv6 DHCP Server			
IP Routing	IP Routing and Static Route, RIP			
Reliability	Spanning Tree	802.1D STP, 802.1W RSTP, 802.1S MSTP Root Guard, BPDU Guard, BPDU Forwarding Multi-Process MSTP		
	LACP	128 groups per device/8 ports per group Load balance		
	L2 Ring Protection	MRPP ITU-T G.8032 Loopback Detection Fast Link		
	Multi-link Backup	Enhanced Multi-VLAN subnet Traffic Engineering (ULPP+ULSM)		
	VSF	Virtual Switch Framework		
Security	IP ACL, MAC ACL, MAC-IP ACL, User-Defined ACL Time Range ACL ACL on VLAN interface Storm Control based on packets and bytes Port Security, MAC Limit based on VLAN and Port Anti-ARP-Spoofing, Anti-ARP-Scan, ARP Binding ND Snooping DAI IEEE 802.1x, Web Portal Authentication, Authorization, Accounting			

Item	S5750E-28P-SI	S5750E-52P-SI	S5750E-28P-P-SI	S5750E-16X-SI
	Radius, TACACS+			
Multicast	IGMP v1/v2/v3 snooping, IGMP Fast leave MVR MLD v1/v2 snooping IPv4/IPv6 DCSCM(D)			
QoS	8 Queues Per Port Bandwidth Control Flow Redirect Classification based on ACL, VLAN ID, COS, TOS, DSCP, IPv6 Flow Label Policing Based on Port and VLAN Single Rate Three Colors, Dual Rates Three Colors for Policing Remark DSCP, COS/802.1p, Precedence, TOS SP, WRR, SWRR, DWRR for Scheduling			
Maintenance and Operation Management	XModem/TFTP/FTP CLI, Telnet, Console Web/SSL (IPv4/IPv6) SSH (IPv4/IPv6) SNMPv1/v2c/v3 SNMP Trap Public & Private MIB interface RMON 1,2,3,9 Ping, Trace Route Radius Authentication Syslog (IPv4/IPv6) SNTP/NTP (IPv4/IPv6) Dual IMG, Multiple Configuration Files Port Mirror, CPU Mirror, RSPAN, ERSPAN sFlow OAM EFM; OAM CFM* Dying GASP VCT, DDM ULDP(like Cisco UDLD) LLDP/LLDP MED OpenFlow 1.0, support open controller Opendaylight, Floodlight, Ryu, Pox, etc.			
Green Energy	IEEE 802.3az (Energy Efficient Ethernet)			

Item	S5750E-28P-SI	S5750E-52P-SI	S5750E-28P-P-SI	S5750E-16X-SI
	Auto Fan Speed Control, Temperature Alarm (S5750E-28P and S5750E-28X has no fans) LED Shut-off			

 Models with 10G uplink

Item	S5750E-28X-SI	S5750E-52X-SI	S5750E-28X-P-SI	S5750E-52X-P-SI	S5750E-28X-SI-24F-D
Management Port	1 Console port	1 Console port	1 Console port	1 Console port	1 Console port
Ports	24 x 10/100/1000Base-T + 4 x 10GbE (SFP+)	48 x 10/100/1000Base-T + 4 x 10GbE (SFP+)	24 x 10/100/1000Base-T + 4 x 10GbE (SFP+)	48 x 10/100/1000Base-T + 2 x 1000Base-X + 2 x 10GbE (SFP+)	20 x 100/1000Base-X (SFP) + 4 x GbE Combo(RJ45/SFP) + 4 x 10GbE (SFP+)
Performance					
Switching Capacity	128Gbps	176Gbps	128Gbps	176Gbps	128Gbps
Forwarding Rate	96Mpps	132Mpps	96Mpps	105Mpps	96Mpps
MAC ADDRESS	16K	16K	16K	16K	16K
Jumbo Frame	9K	9K	9K	9K	9K
ACL Table	1k	1k	1k	1k	1.5k
Route Table IPv4 / IPv6 shared	128 / 128	128 / 128	128 / 128	128 / 128	512 / 512
Queues per port	8	8	8	8	8
VLAN TABLE	4K	4K	4K	4K	4K
Physical					
Dimension(WxHxD)	443mm x 44mm x 220mm	443mm x 44mm x 280mm	442mm x 43.6mm x 330mm	442mm x 43.6mm x 330mm	443mm x 44mm x 220mm
weight	2.33kg±0.1kg	3.80kg±0.1kg	5.5kg±0.1kg	6.3kg±0.1kg	2.9kg±0.1kg
Power Input	100~240VAC, 50~60Hz	100~240VAC, 50~60Hz	100~240VAC, 50~60Hz	AC: 100~240VAC, 50~60Hz DC: Input -52V ~ -57V	AC: 100~240VAC, 50~60Hz DC: Input -48V ~ -60V
Power Consumption	23W	37W	467W	897W	42W

Item	S5750E-28X-SI	S5750E-52X-SI	S5750E-28X-P-SI	S5750E-52X-P-SI	S5750E-28X-SI-24F-D
Temperature	Working 0°C~50°C, Storage -40°C~70°C				
Relative Humidity	5%~95%,non-condensing				
EMC safety	CE, RoHS				
PoE	NA	NA	IEEE 802.3af POE(15.4W) IEEE 802.3at POE+ (30W) Total PoE power: 370W	IEEE 802.3af POE(15.4W) IEEE 802.3at POE+ (30W) Total PoE power: 740W	NA
Main Features					
Forwarding	Storage and Forwarding				
VLAN	Port-based VLAN IEEE802.1Q private VLAN Protocol VLAN Voice VLAN MAC VLAN Normal QinQ, Selective QinQ, Flexible QinQ VLAN Translation, N:1 VLAN Translation				
DHCP	IPv4/IPv6 DHCP Client,IPv4/IPv6 DHCP Relay Option 82,Option 37/38 IPv4/IPv6 DHCP Snooping,IPv4/IPv6 DHCP Server				
IP Routing	IP Routing and Static Route, RIP				
Reliability	Spanning Tree	802.1D STP, 802.1W RSTP, 802.1S MSTP Root Guard, BPDU Guard, BPDU Forwarding Multi-Process MSTP			
	LACP	128 groups per device/8 ports per group Load balance			
	L2 Ring Protection	MRPP ITU-T G.8032 Loopback Detection Fast Link			

Item		S5750E-28X-SI	S5750E-52X-SI	S5750E-28X-P-SI	S5750E-52X-P-SI	S5750E-28X-SI-24F-D
	Multi-link Backup	Enhanced Multi-VLAN subnet Traffic Engineering (ULPP+ULSM)				
	VSF	Virtual Switch Framework				
Security		IP ACL, MAC ACL, MAC-IP ACL, User-Defined ACL Time Range ACL ACL on VLAN interface Storm Control based on packets and bytes Port Security, MAC Limit based on VLAN and Port Anti-ARP-Spoofing , Anti-ARP-Scan, ARP Binding ND Snooping DAI IEEE 802.1x, Web Portal Authentication, Authorization, Accounting Radius, TACACS+				
Multicast		IGMP v1/v2/v3 snooping, IGMP Fast leave MVR MLD v1/v2 snooping IPv4/IPv6 DCSCM(D)				
QoS		8 Queues Per Port Bandwidth Control Flow Redirect Classification based on ACL, VLAN ID, COS, TOS, DSCP, IPv6 Flow Label Policing Based on Port and VLAN Single Rate Three Colors, Dual Rates Three Colors for Policing Remark DSCP, COS/802.1p, Precedence, TOS SP, WRR, SWRR, DWRR for Scheduling				
Maintenance and Operation Management		XModem/TFTP/FTP CLI, Telnet, Console Web/SSL (IPv4/IPv6) SSH (IPv4/IPv6) SNMPv1/v2c/v3 SNMP Trap Public & Private MIB interface RMON 1,2,3,9 Ping, Trace Route				

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Item	S5750E-28X-SI	S5750E-52X-SI	S5750E-28X-P-SI	S5750E-52X-P-SI	S5750E-28X-SI-24F-D
	Radius Authentication Syslog (IPv4/IPv6) SNTP/NTP (IPv4/IPv6) Dual IMG, Multiple Configuration Files Port Mirror, CPU Mirror, RSPAN, ERSPAN sFlow OAM EFM; OAM CFM* Dying GASP VCT, DDM ULDP(like Cisco UDLD) LLDP/LLDP MED OpenFlow 1.0, support open controller Opendaylight, Floodlight, Ryu, Pox, etc.				
Green Energy	IEEE 802.3az (Energy Efficient Ethernet) Auto Fan Speed Control, Temperature Alarm (S5750E-28P and S5750E-28X has no fans) LED Shut-off				

■ Ordering information

Product	Description
S5750E-28P-SI	L3 Gigabit Intelligent Ethernet Switch with 24 10/100/1000Base-T and 4 1000Base-X(SFP) ports, 100-240VAC Power Input
S5750E-52P-SI	L3 Gigabit Intelligent Ethernet Switch with 48 10/100/1000Base-T and 4 1000Base-X(SFP) ports, 100-240VAC Power Input
S5750E-28X-SI	L3 Gigabit Intelligent Ethernet Switch with 24 10/100/1000Base-T and 4 10GbE (SFP+) ports, 100-240VAC Power Input
S5750E-52X-SI	L3 Gigabit Intelligent Ethernet Switch with 48 10/100/1000Base-T and 4 10GbE (SFP+) ports, 100-240VAC Power Input
S5750E-28P-P-SI	L2 Gigabit Intelligent Ethernet Switch with 24 10/100/1000Base-T and 4 1000Base-X(SFP) ports, 100-240VAC Power Input, 30w PoE+ supported and total PoE power 370W
S5750E-28X-SI-24F-D	L3 Gigabit Intelligent Ethernet Switch with 20 100/1000Base-X, 4 GbE Combo(SFP/RJ45) and 4 10GbE (SFP+) ports, 100-240VAC + 48VDC Power Input
S5750E-28X-P-SI	L3 Gigabit Intelligent Ethernet Switch with 24 10/100/1000Base-T and 4 10GbE (SFP+) ports, 100-240VAC

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	Power Input, 30w PoE+ supported and total PoE power 370W
S5750E-52X-P-SI	L3 Gigabit Intelligent Ethernet Switch with 48 10/100/1000Base-T, 2 1000Base-X(SFP) and 2 10GbE (SFP+) ports, 100-240VAC + 54-VDC Power Input, 30w PoE+ supported and total PoE power 740W
S5750E-16X-SI	L3 10Gigabit Intelligent Ethernet Switch with 16 10GbE (SFP+) ports, 100-240VAC + 48VDC Power Input
AOC-SFPX-10M	AOC cable with 2 10G(SFP+) modules, 10m, suitable for SFP+ ports on same model of switch, can be used for VSF
DAC-SFPX-3M	DAC cable with 2 10G(SFP+) modules, 3m, suitable for SFP+ ports on same model of switch, can be used for VSF

■ Contact us

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