

## ETHERNET ACCESS SWITCHES

### S5750E SERIES



S5750E-28X-SI (R2)

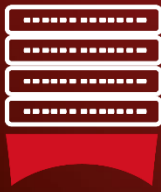
S5750E-28X-P-SI (R2)

S5750E-52X-SI (R2)

S5750E-52X-P-SI (R2)



Network  
Security



Stacking



Advanced  
QoS



10Gb Ports



Features  
without hiding  
costs



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## NETWORK SECURITY

- IP Source Guard provides Layer 2 source IP address filtering to prevent spoofing of an unauthorized host uses authorized hosts IP address. This feature uses dynamic DHCP Snooping and a static input of the source IP address.
- The S5750E series support DHCP Snooping which prevent attacks with using an illegal DHCP server by setting trusted ports and unused ports. By enabling DHCP Snooping Binding and DHCP option 82, you can combine modules such as dot1x and ARP DAI or independently implement user access control.
- Access control list (ACL) can be used to restrict access to sensitive network resources by filtering packets and forwarding according to established rules. The user-defined ACL provides more flexible access control for users.
- The S5750E series supports much more L2 security features such as ARP protection, ARP scanning and other ARP and MAC security technologies to protect network security and reliability.

## STACKING

- Virtual Switch Framework (VSF) can connect multiple DCN switches into one logical device, achieving sharing of information boards and data between different switches. By using this functionality, the devices in the stack have increased performance and the number of ports. VSF technology is also characterized by simplified management and greater operational reliability.

## ADVANCED QOS FUNCTIONS

- With 8 queues per port, the S5750E-SI series allows differentiated classification of up to 8 types of traffic. Traffic is determined according to IEEE802.1p, DSCP, IP priority and TCP / UDP port number, ensuring optimal performance of real-time applications such as voice and video.

## 10 GIGABIT PORTS

- The S5750E series of access switches offers up to 4x 10 gigabit ports that can work as a redundant link working with various ring protection functions, effectively increasing scalability and network performance.
- All SFP + ports support 10 gigabit as well as 1 gigabit transmission.

## FEATURES WITHOUT HIDING COSTS

- With using switches of the S5750E series you can be sure that the equipment which you are using has all available functionalities without the needs to purchase additional licenses.

S5750E	28X-SI (R2)	28X-P-SI (R2)	52X-SI (R2)	52X-P-SI (R2)
<b>Switch Classification</b>				
Layer 3 lite	✓	✓	✓	✓
<b>Connectivity</b>				
10/100/1000Base-T (RJ45)	24	-	48	-
10/100/1000Base-T(RJ45) with PoE	-	20	-	48
COMBO (10/100/1000Base-T (RJ45) or 100/1000Base-X (SFP))	-	4 (PoE)	-	-
1000/10GBase-X (SFP+)	4	4	4	4
(10/100Base-T RJ45) – Mgmt OOB port	1	1	1	1
Console port – RS-232 (RJ45)	1	1	1	1
USB port	1	1	1	1
<b>Performance</b>				
Switch fabric speed	128 Gb/s	128 Gb/s	176 Gb/s	176 Gb/s
Forwarding rate	95,23 Mp/s	95,23 Mp/s	130,95 Mp/s	130,95 Mp/s
Packet buffer	1,5 MB	1,5 MB	1,5 MB	1,5 MB
Jumbo frames	10 K	10 K	10 K	10 K
MAC address table <sup>(1)</sup>	16 K	16 K	16 K	16 K
Multicast MAC address table	4 K	4 K	4 K	4 K
ACL table <sup>(2)</sup>	1,4 K	1,4 K	1,4 K	384
Routing table <sup>(3)</sup>	1 K	1 K	1 K	512
Multicast routing table <sup>(4)</sup>	1 K	1 K	1 K	512
ARP table	4 K	4 K	4 K	512
Number of Vlan interfaces (IP)	1 K	1 K	1 K	1 K
CPU clock	800 MHz	800 MHz	800 MHz	800 MHz
Flash memory	32 MB SPI + 128 MB NAND	32 MB SPI + 128 MB NAND	32 MB SPI + 128 MB NAND	32 MB SPI + 128 MB NAND
RAM memory	512 MB	512 MB	512 MB	256 MB
<b>Resilience and availability</b>				
IEEE 802.1D STP/802.1w RSTP/802.1s MSTP	✓	✓	✓	✓
IEEE 802.3ad LACP	✓	✓	✓	✓
Virtual Cable Testing	✓	✓	✓	✓
DDM	✓	✓	✓	✓
LLDP / LLDP-MED	✓	✓	✓	✓
VRRP	✓	✓	✓	✓
Loop guard	✓	✓	✓	✓
ERPS (ITU-T G.8032)	✓	✓	✓	✓
MRPP	✓	✓	✓	✓
ULPP	✓	✓	✓	✓
<b>Traffic control</b>				
IEEE 802.3x Full duplex & Flow control	✓	✓	✓	✓
802.1Q VLANs	4 K	4 K	4 K	4 K
Port-based VLAN	✓	✓	✓	✓
Protocol-based VLAN	✓	✓	✓	✓
IP subnet based VLAN	✓	✓	✓	✓
Voice VLAN	✓	✓	✓	✓
Mac VLAN	✓	✓	✓	✓
Super VLAN	✓	✓	✓	✓
LACP algorithm of source/destination IP (load balance)	✓	✓	✓	✓
GVRP	✓	✓	✓	✓
802.1ad Vlan Stacking (QinQ)	✓	✓	✓	✓
Flexible QinQ	✓	✓	✓	✓
<b>Security</b>				
Layer 2 MAC filtering	✓	✓	✓	✓
BPDU Tunnel	✓	✓	✓	✓
BPDU Guard	✓	✓	✓	✓
Login authentication and authorization by Radius and Tacacs+	✓	✓	✓	✓
TACACS+ accounting/ auditing	✓	✓	✓	✓
SSH v1/v2	✓	✓	✓	✓
DHCP/DHCPv6 snooping	✓	✓	✓	✓
IP/IPv6 Source Guard	✓	✓	✓	✓
Port security	✓	✓	✓	✓
IEEE 802.1x port-based / mac-based	✓	✓	✓	✓
<b>QoS</b>				
802.1p Priority Queues per Port	8	8	8	8
802.1p Queuing method	✓	✓	✓	✓
Trusted COS/TOS/IP Precedence/DSCP/Port number	✓	✓	✓	✓
Broadcast Storm Control	✓	✓	✓	✓
Rate Limiting, port based	✓	✓	✓	✓
Strict priority	✓	✓	✓	✓
Weighted Deficit Round Robin	✓	✓	✓	✓
Weighted Random Early Detection	✓	✓	✓	✓
Strict priority in Weighted Deficit Round Robin	✓	✓	✓	✓

<sup>(1)</sup> – MAC address Table shared for unicast and multicast (in 1:1 ratio)<sup>(2)</sup> – ACL Table shared for ingress and egress (in 1:1 ratio)<sup>(3)</sup> – Routing Table for IPv4 shared with IPv6 (in 4:1 ratio)<sup>(4)</sup> – Routing Table shared for unicast and multicast (in 1:1 ratio)

S5750E	28X-SI (R2)	28X-P-SI (R2)	52X-SI (R2)	52X-P-SI (R2)
<b>L2/L3 - Multicast</b>				
Multicast VLAN	✓	✓	✓	✓
IGMP v1,v2, v3	✓	✓	✓	✓
IGMP Query	✓	✓	✓	✓
IGMP Snooping (v1,v2,v3)	✓	✓	✓	✓
IGMP Snooping Fast Leave(v2,v3)	✓	✓	✓	✓
PIM-DM/SM/SSM	✓	✓	✓	✓
anycast RP	✓	✓	✓	✓
IPv6 MLD v1/v2 Snooping	✓	✓	✓	✓
<b>Routing</b>				
Static routing IPv4 / IPv6	✓	✓	✓	✓
RIP v1,v2 / RIPng	✓	✓	✓	✓
OSPF v2 / OSPF v3	✓	✓	✓	✓
BGP / BGP4+	✓	✓	✓	✓
<b>Layer 3 IPv6</b>				
IPv4/IPv6 Dual Protocol Stack	✓	✓	✓	✓
IPv6 address	✓	✓	✓	✓
IPv6 Tunneling	✓	✓	✓	-
<b>Manageability</b>				
GUI (Web)	✓	✓	✓	✓
Telnet / SSH	✓	✓	✓	✓
SNMP v1/v2c/v3	✓	✓	✓	✓
TFTP/FTP	✓	✓	✓	✓
Configuration backup and restore	✓	✓	✓	✓
Multilevel CLI	✓	✓	✓	✓
DNS Client	✓	✓	✓	✓
DHCP Client/Relay/Server	✓	✓	✓	✓
DHCP option 43/60/82	✓	✓	✓	✓
DHCPv6 option 37/38	✓	✓	✓	✓
DHCPv6 Relay/Server	✓	✓	✓	✓
SNTP / NTP	✓	✓	✓	✓
sFlow	✓	✓	✓	✓
Port Mirroring per IP/TCP/UDP	✓	✓	✓	✓
RSPAN	✓	✓	✓	✓
Cluster	✓	✓	✓	✓
Stack (VSF)	✓	✓	✓	✓
Stack (VSF-HA)	-	-	-	-
IEEE 802.3ah EFM	✓	✓	✓	✓
IEEE 802.1ag CFM	✓	✓	✓	✓
<b>MIB</b>				
RFC1066 – TCP/IP-based MIB	✓	✓	✓	✓
RFC1213, 1157 – SNMPv2c/v3 MIB	✓	✓	✓	✓
RFC1493 – bridge MIB	✓	✓	✓	✓
RFC2674 – bridge MIB extension	✓	✓	✓	✓
RFC1643 – ethernet MIB	✓	✓	✓	✓
RFC1757 – RMON group 1,2,3,9	✓	✓	✓	✓
RFC2925 – Remote Management MIB	✓	✓	✓	✓
RFC2233 – SMiv2 MIB	✓	✓	✓	✓
<b>Physical</b>				
Dimensions (Width x Height x Depth)	440 mm x 44 mm x 240 mm	440 mm x 44 mm x 320 mm	440 mm x 44 mm x 240 mm	440 mm x 44 mm x 320 mm
Operating temperature	0 °C ~ 50 °C	0 °C ~ 50 °C	0 °C ~ 50 °C	0 °C ~ 50 °C
Working humidity	10% - 90% (no condensation)	10% - 90% (no condensation)	10% - 90% (no condensation)	10% - 90% (no condensation)
Cooling	active FAN's: 1	active FAN's: 2	active FAN's: 1	active FAN's: 4
<b>Electrical</b>				
PoE standards	-	IEEE 802.3at IEEE 802.3af	-	IEEE 802.3at IEEE 802.3af
PoE power budget	-	370W	-	740W
Power supply	230V AC	230V AC	230V AC	230V AC
Redundant power supply	-	-	-	52-57V DC
Power consumption	≤ 30W	≤ 440W	≤ 50W	≤ 897W