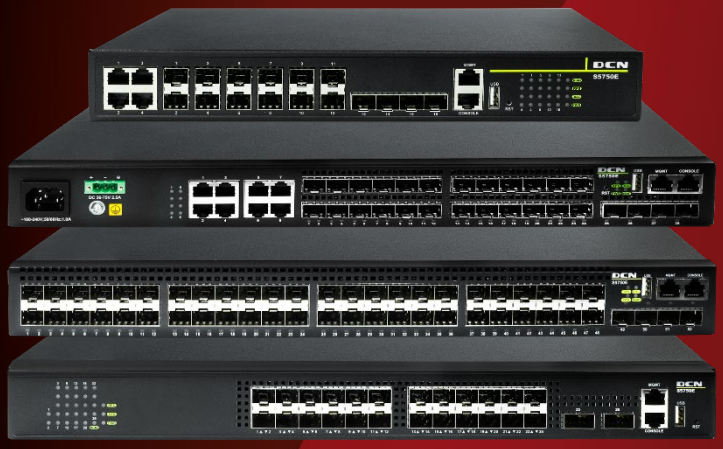
DCN Europe

Switch to
a New Generation

ETHERNET AGGREGATION SWITCHES
S5750E SERIES



- S5750E-16F-SI-D
- S5750E-28F-SI-D
- S5750E-52F-SI-D
- S5750E-26X-SI (R2)

Network Security

Stacking

Advanced QoS

10Gb and 40Gb 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 AND 40 GIGABIT PORTS

- The S5750E series of aggregation switches offers up to 24x 10 gigabit and 2x 40 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.
- All QSFP ports support 4x 10gigabit transmission after unbinding.

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	16F-SI-D	28F-SI-D	52F-SI-D	26X-SI (R2)
Switch Classification				

Layer 2+	–	–	–	✓
Layer 3 lite	✓	✓	✓	–
Connectivity				
COMBO (10/100/1000Base-T (RJ45) or 100/1000Base-X (SFP))	4	8	–	–
100/1000Base-X (SFP)	8	16	48	–
1000/10GBase-X (SFP+)	4	4	4	24
40GBase-X (QSFP) [1]	–	–	–	2
(10/100Base-T RJ45) – Mgmt OOB port	1	1	1	–
(10/100/1000Base-T RJ45) – Mgmt OOB port	–	–	–	1
Console port – RS-232 (RJ45)	1	1	1	1
USB port	1	1	1	1
Performance				
Switch fabric speed	112 Gb/s	128 Gb/s	176 Gb/s	640 Gb/s
Forwarding rate	77,38 Mp/s	95,23 Mp/s	130,95 Mp/s	476,19 Mp/s
Packet buffer	1,5 MB	1,5 MB	1,5 MB	1,5 MB
Jumbo frames	10 K	10 K	10 K	12 K
MAC address table [2]	16 K	16 K	16 K	32 K
Multicast MAC address table	4 K	4 K	4 K	4 K
ACL table [3]	1 K	1 K	1 K	2,7 K Ingress 1 K Egress
Routing table [4]	1 K	1 K	1 K	16 K
Multicast routing table [5]	1 K	1 K	1 K	–
ARP table	4 K	4 K	4 K	16 K
Number of Vlan interfaces (IP)	1 K	1 K	1 K	4 K
CPU clock	800 MHz	800 MHz	800 MHz	1,25 GHz
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	512 MB
Resilience and availability				
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	✓	✓	✓	✓
Traffic control				
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	✓	✓	✓	✓
Security				
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	✓	✓	✓	✓
QoS				
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 Round Robin	–	–	–	✓
Weighted Deficit Round Robin	✓	✓	✓	✓
Weighted Random Early Detection	✓	✓	✓	✓
Strict priority in Weighted Deficit Round Robin	✓	✓	✓	✓

[1] – All QSFP ports are able to be spread transmission for 4x 10Gb Ethernet per port
[2] – MAC address Table shared for unicast and multicast (in 1:1 ratio)
[3] – ACL Table shared for ingress and egress (in 1:1 ratio) – except S5750E-26X-SI
[4] – Routing Table for IPv4 shared with IPv6 (in 4:1 ratio)
[5] – Routing Table shared for unicast and multicast (in 1:1 ratio)

S5750E	16F-SI-D	28F-SI-D	52F-SI-D	26X-SI (R2)
L2/L3 - Multicast				
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	✓	✓	✓	✓
Routing				
Static routing IPv4 / IPv6	✓	✓	✓	✓
RIP v1,v2 / RIPng	✓	✓	✓	-
OSPF v2 / OSPF v3	✓	✓	✓	-
BGP / BGP4+	✓	✓	✓	-
Layer 3 IPv6				
IPv4/IPv6 Dual Protocol Stack	✓	✓	✓	✓
IPv6 address	✓	✓	✓	✓
IPv6 Tunneling	✓	✓	✓	-
Manageability				
GUI (Web)	✓	✓	✓	✓
Telnet	✓	✓	✓	✓
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	✓	✓	✓	✓
ERSPAN	✓	✓	✓	-
Cluster	✓	✓	✓	✓
Stack (VSF)	✓	✓	✓	✓ [6]
Stack (VSF-HA)	✓	✓	✓	-
IEEE 802.3ah EFM	✓	✓	✓	✓
IEEE 802.1ag CFM	✓	✓	✓	✓
MIB				
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	✓	✓	✓	✓
Physical				
Dimensions (Width x Height x Depth)	330 mm x 44 mm x 230 mm	440 mm x 44 mm x 240 mm	440 mm x 44 mm x 320 mm	440 mm x 44 mm x 318 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	active	active	active
Electrical				
Power supply	230V AC	230V AC	230V AC	230V AC
Redundant power supply	48 V DC, RPS	48 V DC, RPS	48 V DC, RPS	48 V DC, RPS
Power consumption	≤ 22W	≤ 34W	≤ 80W	≤ 70W

[6] – Possible to create the virtual stack using by SFP+ or QSFP ports