**S5750E(R2) Dual Stack 10G Ethernet**

**Routing Switch**



**S5750E-28X-SI(R2) S5750E-28C-SI(R2)**



**S5750E-52X-SI(R2) S5750E-28X-P-SI(R2)**

* **Product Overview**

S5750E(R2) series next-generation 10G stackable routing switch has advanced hardware and software architecture design. These switches provide high availability, scalability, security, energy efficiency, and ease of operation with innovative features such as VSF, IEEE

802.3at optional. It is ideal for aggregation or access layer as its high performance, availability and reliability.

* **Key Features and Benefits**

#  Performance and Scalability

With high switching capacity, S5750E(R2) series support wire-speed L2/L3 forwarding and high routing performance for IPv4 and IPv6 protocols.

The 10 Gigabit Ethernet connectivity of S5750E(R2) is accomplished via a hot-pluggable 10 Gigabit SFP+ transceiver which supports distance up to 300 meters over multimode fiber and 10 to 40km over single-mode fiber(The distance depends the optical module chosen).

#  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 virtualized device are greatly enlarged by times under VSF.

VSF also simplifies management work for network administrator and provides more reliability.

#  Rich L3 Features

S5750E(R2) series delivers high-performance, hardware based IP routing.RIP, OSPF and BGP provide dynamic routing by exchanging routing information with other Layer 3 switches and routers. With S5750E(R2) series, customers could easily achieve Policy based Route(PBR), which is important when they need multi exit application.

#  Strong Multicast

S5750E(R2) series supports abundant multicast features. In Layer 2, such as IGMPv1/v2/v3 snooping and fast leave. L3 multicast protocols such as IGMPv1/v2/v3. With Multicast VLAN Register (MVR), multicast receiver/sender control and illegal multicast source detect functions; S5750E(R2) series provides great application experience for customer.

#  Easy High Reliability network

MRPP is Multi-layer Ring Protection Protocol, which is DCN’s private fast Ethernet ring protocol. Comparing to spanning tree protocol, it has advantages of fast convergence, simple protocol calculation, less system resources cost and so on, which can improve the reliability of Ethernet network operation.

#  Comprehensive QoS

With 8 queues per port, S5750E(R2) series enable differentiated management of up to 8 traffic types. The traffic is prioritized according to IEEE802.1p, DSCP, IP precedence and TCP/UDP port number, giving optimal performance to real-time applications such as voice and video.

S5750E(R2) series also supports Bi-directional rate-limiting, per port or traffic class, preserves network bandwidth and allows full control of network resources.

#  Enhanced Security

IEEE 802.1X port-based access control and MAC-based access control ensure all users are authorized before being granted access to the network.

Ingress/Egress Access Control Lists (ACLs) can be used to restrict access to sensitive network resources by denying packets based on L2/L3/L4 headers information. And for some services are based on time, the product can support time based ACL to match the requirement.

Secure Shell (SSH) encrypts network management information via Telnet providing secure network management.

RADIUS Authentication enables centralized control of the switch and restricts unauthorized users from altering the configuration of the switch.

#  Abundant IPv6 Support

S5750E(R2) series supports IPv6 switching and routing based on hardware for maximum performance. With increased network devices growing the need for larger addressing and higher security become critical, S5750E(R2) series will be a right product to meet this requirement.

#  Green-Energy

Temperature monitoring, alarming, automatic cooling, energy saving features are realized on S5750E(R2) . According to the temperature monitoring, Fan speed can be adjusted or stopped to reduce energy consumption and noise.

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|  **Specification** | |  |  |  |
| Item | S5750E-28X-SI(R2) | S5750E-28C-SI | S5750E-28X-P-SI(R2) | S5750E-52X-SI(R2) |

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| --- | --- | --- | --- | --- |
| Physical port | 24 x 10/100/1000BaseT +  4 x 10GE(SFP+) | 24 x 10/100/1000BaseT + 2 x GE Combo(GT/SFP) + 2 x 10GE(SFP+) | 20 x 10/100/1000BaseT + 4 x GE Combo(GT/SFP) + 4 x 10GE(SFP+) | 48 x 10/100/1000BaseT + 4 x  10GE(SFP+) |
| Management port | 1 x RJ45 Ethernet Management port | | | |
| 1x Console port | | | |
| 1x USB2.0 interface | | | |
| Performance | | | | |
| Switching Capacity | 128Gbps | 92Gbps | 128Gbps | 176Gbps |
| Throughput | 95Mpps | 68Mpps | 95Mpps | 131Mpps |
| Jumbo Frame | 10K | 10K | 10K | 10K |
| MAC Address | 16K | 16K | 16K | 16K |
| ARP Table | 4K | 4K | 4K | 4K |
| Routing Table | 1K | 1K | 1K | 1K |
| ACL Table | 1K | 1K | 1K | 1K |
| Physical | | | | |
| Dimension (W\*H\*D) | 440mm x 44mm x 240mm | 440mm x 44mm x 240mm | 440mm x 44mm x 320mm | 440mm x 44mm x 240mm |
| Relative Humidity | 10%~90% non-condensing, storage 95% | | | |
| Temperature | Working 0°C~50°C, storage -40°C~70°C | | | |
| Power Supply | AC:100~240VAC,  50~60Hz | AC:100~240VAC, 50~60Hz | AC:100~240VAC, 50~60Hz | AC: 100~240VAC, 50~60Hz |
| Power Consumption | <30W | <30W | <440W | <50W |
| PoE | NA | NA | IEEE 802.3af  IEEE 802.3at  Total PoE power: 375W | NA |
| Main Features | | | | |
| L1, L2 Features | IEEE802.3(10Base-T), IEEE802.3u(100Base-TX), IEEE802.3z(1000BASE-X), IEEE802.3ab(1000Base-T),  IEEE802.3ae(10GBase), IEEE802.3x, IEEE802.3ak(10GBASE-CX4) | | | |
| Port loopback detection  LLDP and LLDP-MED  UDLD  802.3ad LACP, max 128 group trunks with max 8 ports for each trunk  LACP load balance | | | |
| N:1 Port Mirroring  RSPAN  ERSPAN | | | |
| IEEEE802.1d(STP)  IEEEE802.1w(RSTP)  IEEEE802.1s(MSTP)  Root Guard  BPDU Guard  BPDU Tunnel | | | |

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|  | 802.1Q, 4K VLAN  MAC VLAN, Vocie VLAN, PVLAN, Protocol VLAN, Multicast VLAN QinQ, Selective QinQ, Flexible QinQ  GVRP  N:1 VLAN Translation  Broadcast / Multicast / Unicast Storm Control |
| IGMP v1/v2/v3 Snooping and L2 Query  ND Snooping  MLDv1/v2 Snooping |
| Port Security |
| Flow Control: HOL, IEEE802.3x  Bandwidth Control |
| L3 Features | Static Routing,RIPv1/v2,OSPFv2,BGP4  OSPFv3, BGP4+  OSPF multiple process  LPM Routing  Policy-based Routing(PBR) for IPv4 and IPv6  VRRP  URPF,  ECMP  BFD |
| IGMP v1/v2/v3, IGMP Proxy,  Static Multicast Route  Multicast Receive Control  Illegal Multicast Source Detect |
| ARP Guard, Local ARP proxy, Proxy ARP, ARP Binding, Gratuitous ARP, ARP Limit  Anti ARP/NDP Cheat, Anti ARP/NDP Scan |
| DNS Client, DNS Relay |
| GRE Tunnel |
| IPv6 | 6to4 Tunnel, Configured Tunnel, ISATAP Tunnel, GRE Tunnel  ICMPv6,ND,DNSv6  IPv6 LPM Routing,IPv6 Policy-based Routing(PBR)  IPv6 VRRPv3,IPv6 URPF,IPv6 RA  RIPng,OSPFv3,BGP4+  MLD Snooping,IPv6 Multicast VLAN  MLDv1/v2, IPv6 ACL, IPv6 QoS |
| QoS | 8 Queues  SWRR, SP, WRR, DWRR, SDWRR  Traffic Classification Based on 802.1p COS, ToS, DiffServ DSCP, ACL, port number Traffic Policing  PRI Mark/Remark |
| ACL | IP ACL ,MAC ACL,IP-MAC ACL  Standard and Expanded ACL Based on source/destination IP or MAC, IP Protocol, TCP/UDP port, DSCP, ToS, IP  Precedence), VLAN, Tag/Untag, CoS  REDIRECT and Accounting based ACL  Rules can be configured to port, VLAN, VLAN routing interfaces  Time Ranged ACL |
| Security | 802.1x AAA  Port, MAC based authentication  Accounting based on time length and traffic  Guest VLAN and auto VLAN |
| RADIUS for IPv4 and IPv6 |
| TACACS+ for IPv4 and IPv6 |
| MAB |
| DHCPv4/v6  Traffic Monitor | DHCP Server/Client for IPv4/IPv6  DHCP Relay/Option 82  DHCP Snooping/Option 82 |
| Traffic Monitor | sFlow Traffic Analysis |
| Security Network  Management | CLI, WEB, Telnet, SNMPv1/v2c/v3 through IPv4 and IPv6  Syslog and external Syslog Server  HTTP SSL  SNMP MIB, SNMP TRAP  FTP/TFTP  SNTP/NTP  RMOM 1,2,3,9  Authentication by Radius/TACACS  SSH v1/v2  Dual firmware images/ Configuration files  802.3ah OAM, 802.1ag OAM |
| Data Center  Features | VSF(Virtual Switch Framework) |

# The contents marked with “\*” need future upgrade or are under development

* **Order Information**

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| **Product** | **Description** |
| S5750E-28X-SI (R2) | 10G Ethernet Routing Switch, 24 x 10/100/1000BaseT + 4 x 10GE(SFP+), 1 fixed AC power supply |
| S5750E-28C-SI | 10G PoE Ethernet Routing Switch, 24 x 10/100/1000BaseT + 2 x GE Combo(GT/SFP) + 2 x 10GE(SFP+), 1  Fixed AC power supply |
| S5750E-28X-P-SI(R2) | 10G Ethernet Routing Switch, 20 x 10/100/1000BaseT + 4 x GE Combo(GT/SFP) + 4 x 10GE(SFP+), 1 fixed AC |
|  | power supply. up to 375W for PoE |
| S5750E-52X-SI (R2) | 10G Ethernet Routing Switch, 48 x 10/100/1000BaseT + 4 x 10GE(SFP+), 1 fixed AC power supply |
| 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**

For more detail information about DCN product, contact:

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