S5750E-52F-SI-R Dual Stack 10G Ethernet Routing Fiber Switch

■ Product Overview

S5750E-52F-SI-R 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. 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-52F-SI-R support wire-speed L2/L3 forwarding and high routing performance for IPv4 and IPv6 protocols.

The 10 Gigabit Ethernet connectivity of S5750E-52F-SI-R 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).

S5750E-52F-SI-R fiber switches support AC+12VDC RPS power supplies.

➢ 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-52F-SI-R 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-52F-SI-R, customers could easily achieve Policy based Route(PBR), which is important when they need multi exit application.

➢ Strong Multicast

S5750E-52F-SI-R 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-52F-SI-R 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-52F-SI-R 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-52F-SI-R 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-52F-SI-R 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-52F-SI-R will be a right product to meet this requirement.

➢ Green-Energy

Temperature monitoring, alarming, automatic cooling, energy saving features are realized on S5750E-52F-SI-R. According to the temperature monitoring, Fan speed can be adjusted or stopped to reduce energy consumption and noise.

■ Specification

Item	S5750E-52F-SI-R
Physical port	48 x 100/1000Base-X (SFP) + 4 x 10GbE (SFP+)
Management port	1 x RJ45 Ethernet Management port
	1x Console port
	1x USB2.0 interface
Performance	

Switching Capacity	176Gbps
Throughput	131Mpps
Jumbo Frame	10K
MAC Address	16K
ARP Table	4K
Routing Table	1K
ACL Table	1K
Physical	
Dimension (W*H*D)	440mm*44mm*320mm
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 + 12VDC RPS
Power Consumption	<80W
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
	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 Any Cast RP, 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

Product	Description
S5750E-52F-SI-R	10G Ethernet Routing Switch, 48 x 100/1000Base-X (SFP) + 4 x 10GbE (SFP+), AC + 12VDC RPS power supply

■ Contact us

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