FS

S5500-48T6SP-R PoE+ Switch

CARRIER-LEVEL AGGREGATION LAYER 2/3 SWITCH WITH BVSS (VIRTUAL SWITCH SYSTEM)

Model: S5500-48T6SP-R

Overview

S5500-48T6SP-R switch is a new generation PoE+ switch with 48 gigabit RJ45 ports and 6×10G SFP+ ports.

It is targeted at the IP MAN (metropolitan area network), campus networks and enterprise networks. It is developed on the basis of high-performance hardware and FSOS - a software platform with FS own independent intellectual property rights. It supports multiple services like IPv6, VPN and network security based on L2/L3/L4 wire-speed switching service. It also supports nonstop upgrade, continuous forwarding, graceful restarting and redundancy protection.

Benefits

· BVSS (Virtual Switch System)
· Up to 10G Uplinks and Stack Links
· Industry-standard CLI & Web Management
· 1+1 Redundant Power Supplies
· Intelligent Fan Management System
· Green Ethernet, Low Power Consumption

Features

Carrier-level High Reliability

Based on HPS (Hitless Protection System), the power module supports dual back-up, hot-swap, seamless switching in the downtime without manual intervention;
Support STP/RSTP/MSTP, VRRP, Ethernet ring protection, dual master-slave uplink protection and LACP link aggregation;
Support Ethernet OAM mechanism, 802.3ah, 802.1ag and ITU-Y.1731;
Support BFD mechanism;
High reliability (99.999%): MTTR of S5500-48T6SP-R is 50ms.

Versatile IPv6 Solution

Support the IPv6 protocol suite, IPv6 neighbor discovery, ICMPv6, path MTU discovery, DHCPv6, etc.; Support Ping, Traceroute, Telnet, SSH, ACL based on IPv6;
Support MLD, MLD Snooping, IPv6 static routing, RIPng, OSPFv3 and BGP4+, etc.; Support IPv6 tunnel: manual tunnel, automatic tunnel, GRE tunnel, 6to4 tunnel, ISATAP;
Support IPv4 transiting to IPv6: IPv6 manual tunnel, automatic tunnel, 6 to 4 tunnel, ISATAP tunnel.

Varied Service Features

Support layer2 and layer3 multicast routing protocol, which enable the device can access to IPTV, HD video surveillance and HD video conference;
Support layer3 routing protocol and super-large routing table capacity, which enables the device is available in large campus networks, enterprise networks and industry networks.

Innovative Energy-saving Design

Intelligent power management: The power system supports real-time monitoring the device and the slow-start. It is also power-saving; Intelligent fan management system: The fan system supports automatic speed regulation, which efficiently slow the fan speed and mitigate the noise;
Comply with the international standard IEEE 802.3az.

Security+

Equipment-level security: The advanced hardware infrastructure design realizes the level-based packet schedule and packet protection, prevents DoS-/TCP- related SYN Flood, UDP Flood, Broadcast Storm or large traffic attacks, and supports level-based command line protection, endowing different levels of users with different management permissions;
Perfect security authentication mechanisms: IEEE 802.1x, Radius and Tacacs+;
Support storm/multicast/unicast limit, ensuring the normal running of equipment in harsh network conditions; Support perfect ring detection mechanism, ensuring the long-term stable running of network;
Support port isolation within the same VLAN, DHCP-Snooping, and IP + MAC + Port binding.

Technical Specification

S5500-48T6SP-R switch comes with advanced hardware architecture design and abundant L2 and L3 features. Here's a look at the details.

CHARACTERISTICS

	S5500-48T6SP-R
Ports	
Ports	48x 10/100/1000BASE-T RJ45, 6x 10G SFP+
Max. 10G Ports	6
Max. 1G Ports	54
Console Port	1*RJ45
Operating System	
OS	FSOS
Performance	
Layer Type	Layer 3
Switching Capacity	256 Gbps
Forwarding Rate	162 Mpps
Flash Memory	32MB
DRAM	256MB
Packet Buffer	2MB
Jumbo Frame	9KB
MAC Address	32K
Routing Table (IPv4)	12K
Routing Table (IPv6)	6K
Number of VLANs	4K
MTBF (Hours)	>100000

CHARACTERISTICS

	S5500-48T6SP-R
Authentication Methods	IEEE 802.1x, Radius and Tacacs+
Remote Management Protocol	SNMP, RMON, HTTP, Telnet, SSH
Status Indicators	System, PoE, PWR
Auto-Negotiation	YES
Auto-MDI/MDIX	YES
ARP Table (IPv4)	12K
ARP Table(IPv6)	2K
Total SVI	1K

Power

PoE Standard	Compliant with IEEE 802.3at/af
Input Voltage	100V-240VAVC, 50-60Hz
Output Voltage	48VDC
Power Consumption (No-load)	33W
Max. Power Consumption (Single-power)	500W
Max. Power Consumption (Dual-power)	1000W
Power Budget (Single-power))	370W
Power Budget (Dual-power)	740W
Hot-swappable Power Supplies	2 (1+1 Redundancy)

Physical and Environmental

Dimensions (HxWxD)	442.5*355*44.6mm
Rack Space	1U
Fans	3
Airflow	Left-to-Right
Acoustic Noise	34.5db

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CHARACTERISTICS

	S5500-48T6SP-R
Operating Temperature	32°F to 122°F (0ºC to 50ºC)
Storage Temperature	-4°F to 158°F (-20ºC to 70ºC)
Operating Humidity	10% to 90% (Non-condensing)
Storage Humidity	5% to 95% (Non-condensing)
Weight	5.7kg

Warranty

Warranty	5 Years

KEY FEATURES

Functionality	Description
VLAN	• 4K Active VLAN, QinQ & Selective QinQ, GVRP, Private VLAN, MVR
Spanning Tree	• 802.1D (STP), 802.1W (RSTP) and 802.1S (MSTP) • BPDU guard, root guard and loopback guard
Multicast	• PIM-SM, PIM-DM, IGMP v1/v2/v3, IGMP Snooping, IGMP Fast Leave, MVR, IGMP filter
IPv4	• Static routing, RIP v1/v2, OSPF, BGP, PBR, ECMP • BFD for OSPF, BGP
IPv6	• ICMPv6, DHCPv6, ACLv6 and IPv6 Telnet • IPv6 neighbor discovery, Path MTU discovery • MLD V1/V2, MLD snooping • IPv6 Static Routing, RIPng, OSPFv3, BGP4+ • Manual tunnel, ISATAP tunnel, 6 to 4 tunnel
QoS	• CAR, HQoS, MAC/IP/TCP/UDP/VLAN/COS/DSCP/TOS based QoS, 802.1P/DSCP priority re-labeling, SP, WRR, and "SP+WRR", Tail-Drop, WRED, flow monitoring and traffic shaping
Security	• Port isolation, Port security, and "IP+MAC+port" binding, MAC sticky DHCP Snooping and option 82, DAI & IP source guard, PPPoE+ • IEEE 802.1x, Radius and Tacacs+ • L2/L3/L4 ACL flow identification and filtration • Anti-attack from DDoS, TCP's SYN Flood, UDP Flood, etc. Broadcast/multicast/unknown unicast storm-control • MD5, SHA-256, RSA-1024, AES256, etc.
DHCP	• DHCP Server • DHCP Relay

KEY FEATURES

| Functionality	Description
Reliability	• Static/LACP link aggregation, Interface backup • BVSS virtual-stacking • EAPS and ERPS • URPF, LLDP • VRRP • 1+1 power backup
Management	• Console, Telnet, SSH v1/2, HTTP, HTTPS • SNMP v1/v2/v3, RMON • TFTP, FTP, SFTP • NTP, SPAN, RSPAN • sFlow

Management Support for S5500-48T6SP-R

Description	Specification	
Management	NMS-ACCOUNTING-MIB	NMS-DHCP-SNOOPING-MIB
	NMS-ACL-EXT-MIB	NMS-ETHERRING-MIB
	NMS-AUTHENTICATION-TRAP	NMS-FAN-TRAP
	NMS-BACKUPLINK-MIB	NMS-FILE-MGMT-MIB
	NMS-CARD-OPERATION	NMS-FLASH
	NMS-CARD-SYS-MIB	NMS-GBSC-MIB
	NMS-CFGAPP-MIB	NMS-HAL-GLOBAL-MIB
	NMS-CHASSIS-MIB	NMS-HAL-IF-MIB
	NMS-CONFIG-MGMT	NMS-IEEE8023-LAG-MIB

Management Support for S5500-48T6SP-R

Description	Specification	
Management	NMS-IF-APP-POLICY-MIB	NMS-QOS-PIB-MIB
	NMS-IF-MIB	NMS-QOS-QUEUE
	NMS-IF-THRESHOLD-MIB	NMS-REMOTE-PING-MIB
	NMS-INTERFACE-EXT	NMS-ROUTING-MIB
	NMS-INTERFACES	NMS-R-QOS-MIB
	NMS-IPAcl	NMS-SERIAL
	NMS-IP-ADDRESS-MIB	NMS-SMI
	NMS-IPSLA-MIB	NMS-SNMP
	NMS-L2-PROTOCOL-TUNNEL-MIB	NMS-STP
	NMS-LLDP-MIB	NMS-SWITCH-MIB
	NMS-LOG-SERVER-MIB	NMS-SYS
	NMS-MacAcl	NMS-SYS-TRAP
	NMS-MAC-MIB	NMS-TC
	NMS-MEMORY-POOL-MIB	NMS-TFTP
	NMS-EAPS-MIB	NMS-TRAP
	NMS-OPTICAL-PORT-MIB	NMS-VLAN-EXT-MIB
	NMS-POE-MIB	NMS-ERPS-MIB
	NMS-POWER-EXT-MIB	NMS-DHCP-SERVER-LEASE-MIB
	NMS-POWER-MIB	NMS-DHCP-SERVER-MIB
	NMS-PROCESS-MIB	NMS-NAT
	NMS-PTN-ALARM-MIB	NMS-NTP-MIB
	NMS-PVLAN-EXT-MIB	NMS-ROUTING-MIB
	NMS-QOS-EXT-MIB	NMS-MEAPS-MIB
	NMS-QOS-MIB	

Accessories
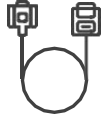
Console Cable *2

Power Cord *1

M3 Bracket Screw *6

Rack Mount Bracket *2

User Manual *1

Rubber Pad *4

United Kingdom

Russia

Germany

United States

China

Singapore

Australia

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