

Layer 3 Stackable PoE+ Switch

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

Model: S5500-48T8SP



Overview

S5500-48T8SP switch is a new generation PoE+ switch with 48 gigabit RJ45 ports and 8 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 ISSU (In-Service Software Upgrade);

Support BFD mechanism;

High reliability (99.999%): MTTR of S5500-48T8SP 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

S5500-48T8SP switch comes with advanced hardware architecture design and abundant L2 and L3 features. Here's a look at the details.

CHARACTERISTICS

S5500-48T8SP	
Ports	
Ports	48x 10/100/1000BASE-T RJ45, 8x 10G SFP+
Max. 10G Ports	8
Max. 1G Ports	56
Console Port	1x Mini USB
Operating System	
OS	FSOS
Key Components	
CPU	BCM53003
Performance	
Layer Type	Layer 3
Switching Capacity	256 Gbps
Forwarding Rate	192 Mpps
Flash Memory	32MB
DRAM	512MB
Packet Buffer	3MB
Jumbo Frame	9KB
MAC Address	32K
Routing Table (IPv4)	32K
Routing Table (IPv6)	8K
Number of VLANs	4K
MTBF (Hours)	>100000

CHARACTERISTICS

S5500-48T8SP	
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)	10K
ARP Table(IPv6)	5K
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)	< 38W
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)	1.73"x17.32"x13.78" (44x440x350mm)
Rack Space	1U
Fans	3
Airflow	Left-to-Right
Acoustic Noise	45dB

CHARACTERISTICS

	S5500-48T8SP
Operating Temperature	32°F to 122°F (0°C to 50°C)
Storage Temperature	-4°F to 158°F (-20°C to 70°C)
Operating Humidity	10% to 90% (Non-condensing)
Storage Humidity	5% to 95% (Non-condensing)
Weight	12.13 lbs (5.5kg)
Warranty	
Warranty	5 Years

KEY FEATURES

Functionality	Description
VLAN	<ul style="list-style-type: none"> 4K Active VLAN, QinQ & Selective QinQ, GVRP, Private VLAN, MVR
Spanning Tree	<ul style="list-style-type: none"> 802.1D (STP), 802.1W (RSTP) and 802.1S (MSTP) BPDU guard, root guard and loopback guard
Multicast	<ul style="list-style-type: none"> PIM-SM, PIM-DM, IGMP v1/v2/v3, IGMP Snooping, IGMP Fast Leave, MVR, IGMP filter
IPv4	<ul style="list-style-type: none"> Static routing, RIP v1/v2, OSPF, BGP, PBR, ECMP BFD for OSPF, BGP
IPv6	<ul style="list-style-type: none"> 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
ACL	<ul style="list-style-type: none"> L2/L3/L4 ACL flow identification and filtration
QoS	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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+ 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	<ul style="list-style-type: none"> DHCP Server DHCP Relay

KEY FEATURES

Functionality	Description
Reliability	<ul style="list-style-type: none"> • Static/LACP link aggregation, Interface backup • BVSS virtual-stacking • EAPS and ERPS • URPF, LLDP • ISSU • VRRP • 1+1 power backup
Management	<ul style="list-style-type: none"> • Console, Telnet, SSH v1/2, HTTP, HTTPS • SNMP v1/v2/v3, RMON • TFTP, FTP, SFTP • NTP, SPAN, RSPAN • sFlow

Management Support for S5500-48T8SP

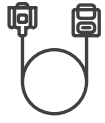
Description	Specification
NMS-ACCOUNTING-MIB	NMS-DHCP-SNOOPING-MIB
NMS-ACL-EXT-MIB	NMS-ETHERRING-MIB
NMS-AUTHENTICATION-TRAP	NMS-FAN-TRAP
NMS-BACKUPLINK-MIB	NMS-FILE-MGMT-MIB
NMS-CARD-OPERATION	NMS-FLASH
NMS-CARD-SYS-MIB	NMS-GBSC-MIB
NMS-CFGAPP-MIB	NMS-HAL-GLOBAL-MIB
NMS-CHASSIS-MIB	NMS-HAL-IF-MIB
NMS-CONFIG-MGMT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

Management Support for S5500-48T8SP

Description	Specification
	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-IPAcI 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-MacAcI 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

Management

Accessories



Console Cable *2



Power Cord *1



M3 Bracket Screw *6



Rack Mount Bracket *2



User Manual *1



Rubber Pad *4



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