

A solid red circle.

FS S5500-48T6SP-R Switch Data Sheet

Contents

Product overview	3
Product highlights	3
Platform details	4
Platform benefits	10
Product specifications	11
Quality certification	13
Warranty, service and support	13
Ordering information	14
Additional information	14
Document history	14

I Product overview

48-Port Gigabit Stackable L3 Managed PoE+ Switch is a new generation of aggregation ethernet routing switch with 1x Mini USB console port, 48x 10/100/1000BASE-T RJ45 ports, 6x 1Gb SFP/10Gb SFP+ ports. It is targeted at the IP MAN (metropolitan area network), campus networks and enterprise networks.

S5500-48T6SP-R 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. It is ideal for all organizations considering reliable, affordable and simple access layer switching with CLI, advanced scripting capabilities and Layer 3 routing.

I Product highlights

- Up to 48 PoE+ Ports, Total Budget 740W
- Support BVSS Virtual Stack Technology (8 Units)
- 1+1 Hot-swappable Power Supplies, 3 Smart Fans
- Support QoS, BGP, OSPF, VRRP, BFD, etc.
- Support CLI/WEB/SNMP/RMON/Syslog for Flexible Operation
- Network Monitoring through Sampled Flow (sFlow)
- Support SSH, ACL, AAA, 802.1X, RADIUS, TACACS+, etc. for Security

Platform details

Switch models and configurations

Figure 1 shows the FS S5500-48T6SP-R switch.

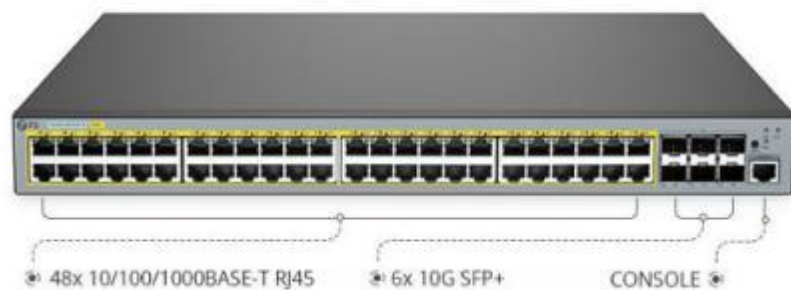


Figure 1.

S5500-48T6SP-R, 48-Port Gigabit Ethernet L3 Fully Managed Plus PoE+ Switch, 48 x PoE+ Ports @740W, with 6 x 10Gb SFP+, Support BVSS

Switch configurations and port density

Table 1 shows the FS S5500-48T6SP-R configurations and port density.

Table 1. Switch configuration and port density

FS P/N	S5500-48T6SP-R
Description	S5500-48T6SP-R, 48-Port Gigabit Ethernet L3 Fully Managed Plus PoE+ Switch, 48 x PoE+ Ports @740W, with 6 x 10Gb SFP+, Support BVSS
Port	
1G port density	48
10G port density	6
10G port density with breakout cable	6
Console port	1
Memory and processor	
Switch chip	RTL9311
CPU	interAptiv
DRAM	256MB
Flash memory	32MB (EMMC)
Latency	<1.7us
Packet buffer	2MB

Note:

RJ45 ports can be used as 10M/100M/1000M ports for Ethernet connection, SFP+ ports support 1G-T/10G-T copper transceiver.

SFP+ ports can be used for 10G connection.

Power supplies and fans

Table 2 provides more details on the FS S5500-48T6SP-R power supplies and fan specifications.

Table 2. Power supply and fan specifications

Description	S5500-48T6SP-R
Power supply	Dual 1+1 redundant power supplies (AC)
Fan number	3x Built-in Fans
Airflow	Left-to-Right
Acoustic noise	53dB
Maximum fan speed	6200 rpm
Max. power consumption	500W (Single-power) 1000W (Dual-power)
Power max rating	1000W
Input-voltage range and frequency	100V-240VAC, 50-60Hz
Power supply efficiency	80%
Input current	7A (MAX) at 90V
Output ratings	Main output: 12V 10A
Output holdup time	≥10ms
Power-supply input receptacles	C13
Power cord rating	10A
PoE standard	IEEE 802.3af/at
PoE power budget	370W (single-power); 740W (dual-power)

Stacking

The FS S5500-48T6SP-R switch models are designed for stacking switches as a single virtual switch, enabling customers to have a single management plane and control plane for up to 6 access ports.

Table 3 lists the supported stacking options.

Table 3. Supported stacking options

Part Name	S5500-48T6SP-R
Stacking ports	Port 1~6 (6*10G)
Supported stack members	Only supports stacking with switches of the same model and version
Maximum number of VSL links	4
Number of members	8

Note:

All 10G ports can be stacked via transceivers or DAC/AOC cables, support port mixing but do not support speed reduction in the same VSL.

Switch performance

Table 4 shows performance specifications for the FS S5500-48T6SP-R switch.

Table 4. Performance specifications

Description	S5500-48T6SP-R
Switching capacity	256 Gbps
Forwarding rate	162 Mpps
Total number of MAC addresses	32000
Total number of IPv4 routes (indirect routes)	12000
Total number of IPv4 host routes (direct routes and ARP)	12000
Total number of IPv4 routes (ARP plus learned routes)	8000
Total number of IPv6 routes (indirect routes)	6000
Total number of IPv6 host routes (direct routes and NDP)	2000
Total number of IPv4 multicast routes	2000
Total number of IPv6 multicast routes	2000
IPv4 routing entries	8000
IPv6 routing entries	2000
Multicast routing scale	2000
QoS ACL scale	768
Security ACL scale	768
QoS scale entries	768
ACL scale entries	68
VLAN IDs	4000
STP virtual ports (port* VLANs) for MST	1000
Total switched virtual interfaces (SVIs)	4000
Jumbo frame	9000 bytes

Description	S5500-48T6SP-R
Maximum number of multicast routes	2000
Number of Interior Gateway Management Protocol (IGMP) snooping groups	2000
Maximum number of Access Control List (ACL) entries	68
Maximum number of VLANs	4000
Maximum number of ECMP paths	256
Maximum number of ECMP groups	256
Maximum number of port channels	128
Maximum number of links in a port channel	8
Number of active SPAN sessions	4
Maximum number of Multiple Spanning Tree (MST) instances	15
Number of Queues	8

I Platform benefits

Table 5 lists the software spotlights for the FS S5500-48T6SP-R switch.

Table 5. Software spotlights

Functionality	Description
Carrier-level High Reliability	Support STP/RSTP/MSTP, VRRP protocol Support Ethernet OAM mechanism, 802.3ah Support ISSU (In-Service Software Upgrade) Support BFD mechanism
Versatile IPv6 Solution	Support the IPv6 protocol suite, IPv6 neighbor discovery Support Ping, Telnet, SSH, ACL based on IPv6 Support MLD, MLD Snooping, IPv6 static routing
Varied Service Features	Support Layer 2 and Layer 3 multicast routing protocol, which enable the device can access to IPTV, HD video surveillance and HD video conference Support Layer 3 routing protocol and super-large routing table capacity, which enables the device to be available in large campus networks, enterprise networks and industry networks
Innovative Energy-saving	Intelligent power management Intelligent fan management system
Security+	Equipment-level security Perfect security authentication mechanisms Support perfect ring detection mechanism Support port isolation, DHCP-Snooping
Easy Management and Maintenance	Management modes such as the console port, Telnet, SSH, and SNMP Support the WEB management mode TFTP-patterned file upload/download management

I Product specifications

Table 6 shows the product specifications for the FS S5500-48T6SP-R switch.

Table 6. Product specifications

Description	S5500-48T6SP-R
Environmental	
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)
Temperature alarm	Supported
Acoustic noise	53dB
Physical specifications	
Dimensions (HxWxD)	1.76"x17.42"x13.98" (44.6x442.5x355mm)
Rack units (RU)	1 RU
Weight	12.57 lbs (5.7kg)
Distance	100M
Electrical	
Voltage (auto ranging)	100-240VAC
Frequency	50-60Hz
Current	7 A Max
Power rating (maximum consumption)	Single-power 500W Dual-power 1000W
Mean-time between failures	
MTBF (hours)	>100000

Description	S5500-48T6SP-R
Connectors	
Connectors and cabling	• 10/100/1000BASE-T ports: RJ-45 connectors, 4-pair Cat5e/Cat6 UTP cabling • SFP+ transceivers: LC fiber connectors (single-mode or multimode fiber) • Management console port: RJ-45-to-DB9 cable for PC connections
Power connectors	• Customers can provide power to a switch by using the internal power at the back of the switch • Internal power supply connector: The internal power supply is an auto-ranging unit. It supports input voltages between 100 (115 for 1100WAC) and 240 VAC. Use the supplied AC power cord to connect the AC power connector to an AC power outlet
Standards	
Standards	Telnet, SSH v1/2, HTTP, 802.1x, RMON, SNMPV1 V2 V3

Quality certification

At FS, our Quality Commitment lies in all aspects of processes, resources, and methods that enable us to build superior networks for our customers. Through a quality policy focusing on continuous improvement of products and services, we're able to achieve the highest levels of satisfaction for our customers. To that end, every FS employee is accountable for contributing to the value of the products and services we deliver.

Figure 2 shows some of the authoritative certifications obtained by FS S5500-48T6SP-R Switch.



Figure 2.

Warranty, service and support

FS S5500-48T6SP-R Switch enjoy 5 years limited warranty against defects in materials or workmanship. For more information for FS Returns & Refunds policy, visit <https://www.fs.com/policies/warranty.html> or https://www.fs.com/policies/day_return_policy.html

FS provides a personal account manager, free professional technical support, and 24/7 live customer service to each customer.

- Professional Lab: Test each product with the latest and advanced networking equipment.
- Free Technical Support: Provide free & tailored solutions and services for your businesses.
- 80% Same-day Shipping: Immediate shipping for in-stock items.
- Fast Response: Direct and immediate assistance from an expert.

For more information, visit https://www.fs.com/service/fs_support.html

Ordering information

Table 7 provides the ordering information for S5500-48T6SP-R switch.

Table 7. Ordering information

FS P/N	Product description
Switch hardware	
S5500-48T6SP-R	S5500-48T6SP-R, 48-Port Gigabit Ethernet L3 PoE+ Switch, 48 x PoE+ Ports @740W, with 6 x 10Gb SFP+, Support BVSS

Additional information

For more information about the S5500-48T6SP-R Switch, contact your account manager or visit <https://www.fs.com/products/149749.html>

Document history

New or revised topic	Described in	Date
Updates to FS S5500-48T6SP-R Switch Data Sheet	Updated all	10/27/2022