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FS S5300-12S Switch Data Sheet

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Product overview

The S5300-12S 12-Port Ethernet layer 3 switch features 12x 10Gb SFP+. Which is a new generation of full gigabit smart switch targeted at the operator IP metropolitan area networks, government and enterprise networks. It also supports strong ACL, selective QinQ, 1:1 and N:1 VLAN switching, Ethernet OAM, carrier QoS, and the industrial 10G Ethernet ring network. These functions make the product meet the need of various complex situations.

The switch is ideal for large-scale campus network accesses, small and medium-sized network cores and aggregations to meet the needs of high-speed, safe, intelligent enterprise networks and Internet bar market.

Product highlights

- Support 8 Units Virtual Stacking
- 1+1 Redundant Power Supplies, 2 Built-in Fans
- Support Layer 3 Features (RIP, OSPF, VRRP, BGP, ect.)
- Support SSH, ACL, 802.1X, RADIUS, TACACS+, etc. for Security
- Support WEB/CLI/SNMP/SSH for Flexible Operation
- Support IPv4/IPv6 Dual-stack for Future Network Expansion

Platform details

Switch models and configurations

Figures 1 show the FS S5300-12S switch

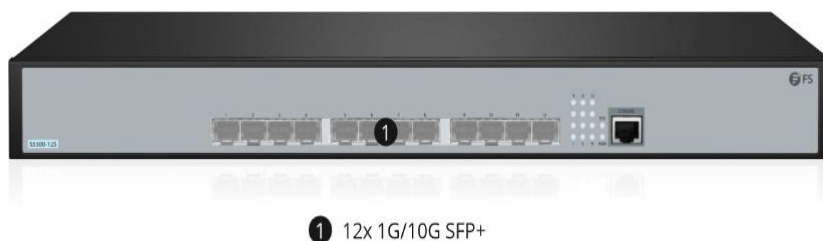


Figure 1.

S5300-12S, 12-Port Ethernet L3 Managed Switch, 12 x 10Gb SFP+, Support Stacking

Switch configurations and port density

Table 1 shows the FS S5300-12S configurations and port density.

Table 1. Switch configuration and port density

FS P/N	S5300-12S
Description	S5300-12S, 12-Port Ethernet L3 Managed Switch, 12 x 10Gb SFP+, Support Stacking
Port	
1G port density	12
10G port density	12
Management ports	-
Console port	1
USB port	-
Memory and processor	
CPU	RTL9313
DRAM	512MB
Flash memory	16MB
Max./Min. Latency	8.13μs/7.92μs
Packet buffer	2MB

Note:

SFP+ ports can be used for 1/10G connection.

Power supplies and fans

Table 2 provides more details on the FS S5300-12S power supplies and fan specifications.

Table 2. Power supply and fan specifications

Description	S5300-12S
Power supply	1+1 Built-in
Fan number	2 Built-in
Airflow	Left-to-Right
Acoustic noise	40.1dB
Maximum fan speed	6200
Max. power consumption	31W
Power max rating	48W
Input-voltage range and frequency	100-240VAC
Power supply efficiency	85%
Input current	1.2A (MAX)
Output holdup time	≥10MS
Power-supply input receptacles	C13
Power cord rating	10A

Switch performance

Table 3 shows performance specifications for the FS S5300-12S switch.

Table 3. Performance specifications

Performance for Switch	S5300-12S
Switching capacity	240 Gbps
Forwarding rate	178.6 Mpps
Total number of MAC addresses	32K
Total number of IPv4 routes (indirect routes)	12K
Total number of IPv4 host routes (direct routes and ARP)	8K
Total number of IPv6 routes (indirect routes)	4K
Total number of IPv6 host routes (direct routes and NDP)	2K
Total number of IPv4 multicast routes	2K
Total number of IPv6 multicast routes	2K
QoS ACL scale	1536
Security ACL scale	1536
VLAN IDs	4K
STP virtual ports (port* VLANs) for MST	12
Total switched virtual interfaces (SVIs)	1023
Jumbo frame	96K

Platform benefits

Table 4 lists the software spotlights for the FS S5300-12S switch.

Table 4. Software spotlights

Functionality	Description
VLAN	4K VLAN entries, GVRP, 1:1 and N:1 VLAN Mapping, QinQ and selective QinQ, Private VLAN
Spanning Tree	Support 802.1D (STP), 802.1W (RSTP) and 802.1S (MSTP) Support BPDU guard, root guard and loopback guard
Multicast	Support PIM-SM, PIM-DM, IGMP v1/v2/v3, IGMP Snooping, IGMP Fast Leave, MVR, IGMP filter
Sound security protection policies	Support Port isolation, Port security, and “IP+MAC+port” binding, MAC sticky DHCP Snooping and option 82, DAI & IP source guard, PPPoE+ Support IEEE 802.1x, Radius and Tacacs+ Support L2/L3/L4 ACL flow identification and filtration
High reliability	Support Static/LACP link aggregation, Interface backup Support virtual-stacking, up to 8 units per stack Support EAPS and ERPS. URPF, LLDP, ISSU Support VRRP Support 1+1 power backup, Dying gasp
QoS	Support 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
Multiple Service Features	Support offer high bandwidth for Triple-Play services such as IPTV, video monitoring Support built-in QoS capabilities and flexible queuing technologies Support L2 multicast protocol IGMP Snooping
Easy Network Maintenance	Support CLI, web management, Telnet and FTP connection Support SNMPv1/v2/v3, SSH2.0, SSL and OAM Support RPC-API
DHCP	Support DHCP server/relay Support DHCP snooping/option 82

Software requirements

The FS S5300-12S Switch run on FS OS Software version.

Table 5 lists the latest software requirements for the switch models.

Table 5. Latest software requirements

FS P/N	Description	Latest software requirements
S5300-12S	S5300-12S, 12-Port Ethernet L3 Managed Switch, 12 x 10Gb SFP+, Support Stacking	-

Product specifications

Table 6 shows the product specifications for the FS S5300-12S switch.

Table 6. Product specifications

Description	S5300-12S
Environmental	
Operating temperature	0 to 50°C (32 to 122°F)
Storage temperature	-40 to 85°C (-40 to 185°F)
Operating humidity	10% to 90% (Non-condensing)
Storage humidity	5% to 95% (Non-condensing)
Temperature alarm	Support
Acoustic noise	40.1dB
Physical specifications	
Dimensions (HxWxD)	1.73"x17.32"x11.02" (44×440×280mm)
Rack units (RU)	1 RU
Weight	7.72 lbs (3.5kg)
Distance	-
Electrical	
Voltage (auto ranging)	100-240VAC
Frequency	50-60Hz
Power rating (maximum consumption)	48W
Mean-time between failures	
MTBF (hours)	>100,000

Description	S5300-12S
Connectors	
Connectors and cabling	- SFP transceivers: LC fiber connectors (single-mode or multimode fiber) - SFP+ transceivers: LC fiber connectors (single-mode or multimode fiber)
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	802.1s, 802.1w, 802.1x, 802.1ad, 802.1d, 802.1p, 802.1q, 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 S5300-12S Switch.



Figure 2.

Optics supported

For details about the optical modules available, visit:
S5300-12S: -

Warranty, service and support

FS S5300-12S Switch enjoys 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 S5300-12S switch.

Table 7. Ordering information

FS P/N	Product description
Switch hardware	
S5300-12S	S5300-12S, 12-Port Ethernet L3 Managed Switch, 12 x 10Gb SFP+, Support Stacking

| Additional information

For more information about the S5300-12S Switch, contact your account manager or visit https://www.fs.com/search_result?keyword=S5300-12S

| Document history

New or revised topic	Described in	Date
Updates to FS S5300-12S Switch Data Sheet	Updated all	6/28/2023



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