

FS S3950-4T12S-R Switch Data Sheet

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Product overview

The S3950-4T12S-R 12-port Gigabit Ethernet Layer 2+ switch features 4x 10/100/1000BASE-T downlinks and 12x 10Gb SFP+ uplinks. This managed enterprise switch delivers 248 Gbps switching capacity and 184.5 Mpps forwarding rate for superior processing performance and network reliability.

With comprehensive Layer 2 function, MLAG, ARP, VRRP, Static Routing, and a suite of security and management features, 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 MLAG (Multi-Chassis Link Aggregation) for Uninterrupted Services
- Support ARP, LACP, VRRP, Static Routing, RIP, DHCP Server etc
- Varied QoS Policies to Satisfy Varying Network Requirements
- Support CLI/WEB/SNMP/RPC-API for Flexible Operation
- Support SSH, ACL, 802.1X, RADIUS, TACACS+, etc. for Security
- Advanced L3 Features, Such as ARP, Static Routing, RIP

Platform details

Switch models and configurations

Figures 1 show the FS S3950-4T12S-R switch

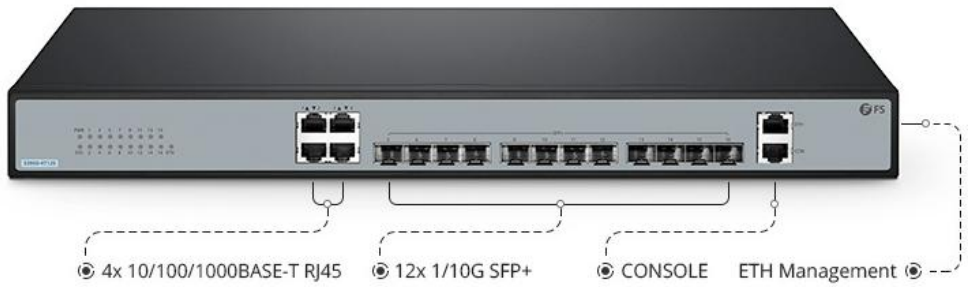


Figure 1.

S3950-4T12-R, 12-Port Ethernet L2+ Switch, 12 x 10Gb SFP+, with 4 x Gigabit RJ45, Support MLAG

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Switch configurations and port density

Table 1 shows the FS S3950-4T12S-R configurations and port density.

Table 1. Switch configuration and port density

FS P/N	S3950-4T12S-R
Description	S3950-4T12S-R, 12-Port Ethernet L2+ Switch, 12 x 10Gb SFP+, with 4 x Gigabit RJ45, Support MLAG
Port	
1G port density	4
10G port density	12
25G port density	-
40G port density	-
100G port density	-
10G port density with breakout cable	-
25G port density with breakout cable	-
40G port density with breakout cable	-
Management ports	1
Console port	1
USB port	-
Memory and processor	
CPU	SOC(Dual core, ARM A53)
DRAM	2GB
Flash memory	8GB(eMMC)

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FS P/N	S3950-4T12S-R
Max./Min. Latency	660ns
Packet buffer	9MB

Note:

RJ45 ports can be used as 100M/1/2.5/5/10G ports for Ethernet connection, and support 1G-T copper transceivers.

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

Power supplies and fans

Table 2-3 provides more details on the FS S3950-4T12S-R power supplies and fan specifications.

Table 2. Power supply and fan specifications

Description	S3950-4T12S-R
Power supply	NOT Support (Fixed power supply)
Fan number	2
Airflow	Left-to-Right
Acoustic noise	43.8dB
Maximum fan speed	10000rpm
Max. power consumption	43W
Power max rating	60W
Input-voltage range and frequency	100-240VAC
Power supply efficiency	≥85%
Input current	2A
Output holdup time	≥10ms
Power-supply input receptacles	ST-A01-003K-YL591

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Table 3. Power cord information of S3950-4T12S-R Switches

Countries	Power Cord Standard	Male Plug	Female Connector	Voltage Compatibility	Maximum Input Amps
United States, Canada, Mexico, Puerto Rico, Guam, Japan, Virgin Islands (U.S.)	US	NEMA 5-15P	IEC60320 C13	100-250VAC	10A
United Kingdom, Hong Kong, Singapore, Malaysia, Maldives, Qatar, India	UK	BS1363	IEC60320 C13	100-250VAC	13A
Continental Europe, South Africa, Switzerland, Italy, Indonesia	EU	CEE 7	IEC60320 C13	100-250VAC	16A
China, Australia, New Zealand, Argentina	CN	GB16A	IEC60320 C13	100-250VAC	10A

Note:

Power cords are matched according to the delivery destination.

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Switch performance

Table 4 shows performance specifications for the FS S3950-4T12S -R switch.

Table 4. Performance specifications

Performance for Switch	S3950-4T12S-R
Switching capacity	248 Gbps
Forwarding rate	184.5 Mpps
Total number of MAC addresses	98304
Total number of IPv4 routes (indirect routes)	57344
Total number of IPv4 host routes (direct routes and ARP)	12288
Total number of IPv6 routes (indirect routes)	6144
Total number of IPv6 host routes (direct routes and NDP)	4096
Total number of IPv4 multicast routes	2048
Total number of IPv6 multicast routes	512
QoS ACL scale	1532
Security ACL scale	3804
VLAN IDs	4,094
STP virtual ports (port* VLANs) for MST	unlimited
Total switched virtual interfaces (SVIs)	256
Jumbo frame	9600 bytes

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Platform benefits

Table 5 lists the software spotlights for the FS S3950-4T12S-R switch.

Table 5. Software spotlights

Functionality	Description
Multi-Chassis Link Aggregation(MLAG)	All 1G/10G ports support MLAG Increase the link bandwidth Connects to other switches and servers by LAG or LACP without other proprietary protocols The software supports up to 55 MLAG members Support mixed configuration MLAG with S3950, S5800, S5850 and S8050 series switches
Sound security protection policies	Support subscriber-class/switch-class/network-class security control Support IPv4/MAC ACL Support ARP Inspection and IP Source Guard features Support CPU Traffic Protection, Storm Control Support centralized 802.1x authentication feature
High reliability	Support Route policy, VRRP, VARP Support xSTP, ERPS for loop protection Support advanced L3 features, such as ARP, Static Routing, RIP Support patented technology "Sysmon"for CPU status monitoring
QoS	Support WDRR/SP and TD /WRED to prevent congestion Support flexible queue scheduling mechanism to do the shaping for queue or port traffic Support ingress and egress policer for intelligent bandwidth monitoring Support Single Rate Three Color Marker (srTCM) Support Two Rate Three Color Marker (trTCM)
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

Software requirements

The FS S3950-4T12S-R Switch run on FS OS Software version.

Table 6 lists the latest software requirements for the switch models.

Table 6. Latest software requirements

FS P/N	Description	Latest software requirements
S3950-4T12S-R	S3950-4T12S-R, 12-Port Ethernet L2+ Switch, 12 x 10Gb SFP+, with 4 x Gigabit RJ45, Support MLAG	-

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Product specifications

Table 7 shows the product specifications for the FS S3950-4T12S-R switch.

Table 7. Product specifications

Description	S3950-4T12S-R
Environmental	
Operating temperature	0 to 45°C (32 to 133°F)
Storage temperature	-40 to 70°C (-40 to 158°F)
Operating humidity	0% to 95% (Non-condensing)
Storage humidity	0% to 95% (Non-condensing)
Temperature alarm	65℃
Acoustic noise	43.8dB
Physical specifications	
Dimensions (HxWxD)	40×440×220 mm
Rack units (RU)	NA
Weight	2.75kg
Distance	-
Electrical	
Voltage (auto ranging)	100-240VAC
Frequency	25MHz
Power rating (maximum consumption)	37.95W
Mean-time between failures	
MTBF (hours)	>50000

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Description	S3950-4T12S-R
Connectors	
Connectors and cabling	• 1GBASE-T ports: RJ-45 connectors, 4-pair Cat5e/Cat6/Cat6a UTP 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	NA

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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.

Figures 2 shows some of the authoritative certifications obtained by FS S3950-4T12S Switch.



Figure 2.

Warranty, service and support

FS S3950-4T12S-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

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Ordering information

Table 8 provides the ordering information for S3950-4T12S-R switch.

Table 8. Ordering information

FS P/N	Product description
Switch hardware	
S3950-4T12S-R	S3950-4T12S-R, 12-Port Ethernet L2+ Switch, 12 x 10Gb SFP+, with 4 x Gigabit RJ45, Support MLAG

Additional information

For more information about the S3950-4T12S Switch, contact your account manager or visit https://www.fs.com/search_result?keyword=S3950-4T12S-R

Document history

New or revised topic	Described in	Date
Updates to FS S3950-4T12S-R Switch Data Sheet	Updated all	3/27/2023

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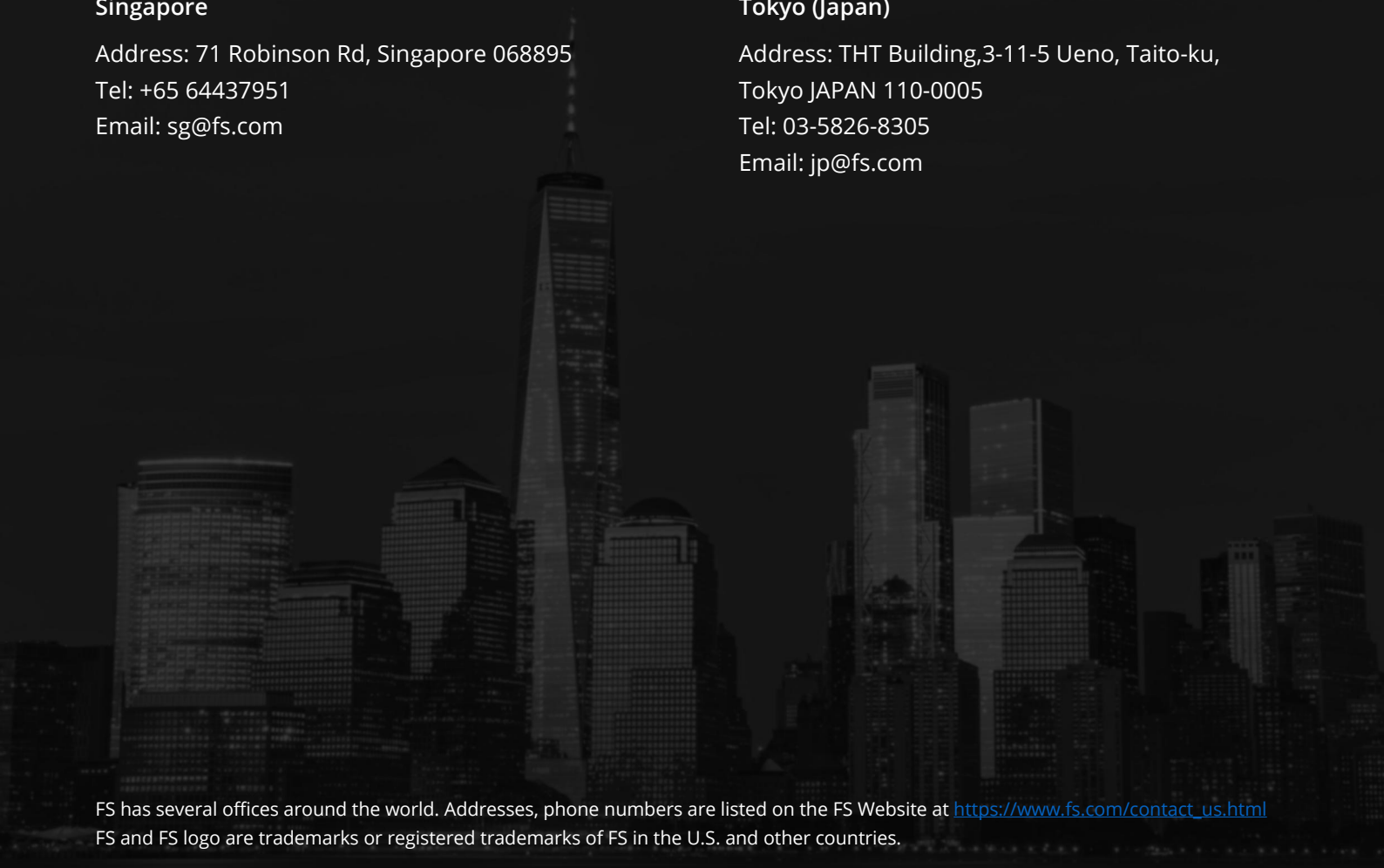
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