FS S3410 Series Switches Data Sheet

Contents

❚ Product overview

S3410 series switches are capable of providing faster hardware processing and better operation experience. They can fully meet users' requirements for high-density access and high-performance convergence. S3410-24TS-P and S3410-48TS-P switches are nextgeneration strong-security, high-performance and energy efficiency gigabit Ethernet switches newly released by FS. It can provide full Gigabit access 10 Gigabit uplink data interaction capabilities.

S3410-10TF-P supports low-power operation to reduce the overall system cost for small business servers. Completely silent operation makes it ideal for open office deployments and commercial applications.

S3410-10TF-P 10-port managed PoE+ switch is equipped with 10x 10/100/1000BASE-T ports, and 2x 1Gb SFP uplinks. 8x RJ45 ports support both IEEE 802.3af PoE and IEEE 802.3at PoE+ (up to 30W per port) for powering attached IP phones, wireless access points, or other standards-compliant PoE and PoE+ end network devices. Fanless design ensures noise-free switch operation, reduced cost and power consumption. The stability of the switch is guaranteed by the use of Broadcom Chips. This energy-efficient access switch delivers a compact and cost-effective solution for small open office deployments and commercial applications.

S3410-24TF-P 24-Port managed PoE+ switch is equipped with 24x 10/100/1000BASE-T ports, and 4x 1Gb SFP uplinks.

S3410-24TS-P 24-Port managed PoE+ switch is equipped with 24x 10/100/1000BASE-T ports, 2x 1Gb RJ45/SFP combo ports and 2x 1/10Gb SFP+ uplinks.

S3410-48TS-P 48-port managed PoE+ switch is equipped with 48x 10/100/1000BASE-T ports, 2x 1Gb RJ45/SFP combo ports and 2x 1/10Gb SFP+ uplinks.

RJ45 ports support both IEEE 802.3af PoE and IEEE 802.3at PoE+ (up to 30W per port) for powering attached IP phones, wireless access points, or other standards-compliant PoE and PoE+ end network devices. It supports 4 Units physical stacking. It is packed with dual redundant hot-swappable power supplies, dual smart fans for superior processing performance and network reliability. This access switch delivers a compact, cost-effective solution for campus networks, SMBs and enterprise networks.

❚ Product highlights

- BCM53343/BCM56150 Switch Chip
- Support DHCP, VRRP, ERPS, ACL, QoS, etc.
- Support WEB/CLI/SNMP/SSH for Flexible Operation
- Network Monitoring through Sampled Flow (sFlow)
- Support SSH, ACL, AAA, 802.1X, RADIUS, TACACS+, etc. for Security
- Support up to 4 Units Stacking (Except S3410-10TF-P)

Platform details

Switch models and configurations

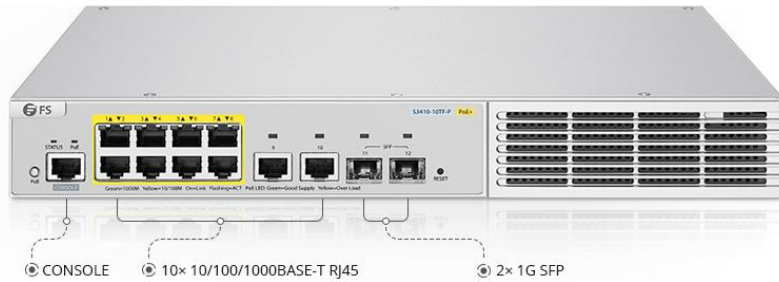Figures 1 through 4 show the FS S3410 series switches.

Figure 1.

S3410-10TF-P, 10-Port Gigabit Ethernet L2+ PoE+ Switch, 8 x PoE+ Ports @125W, with 2 x 1Gb SFP Uplinks, Broadcom Chip, Fanless
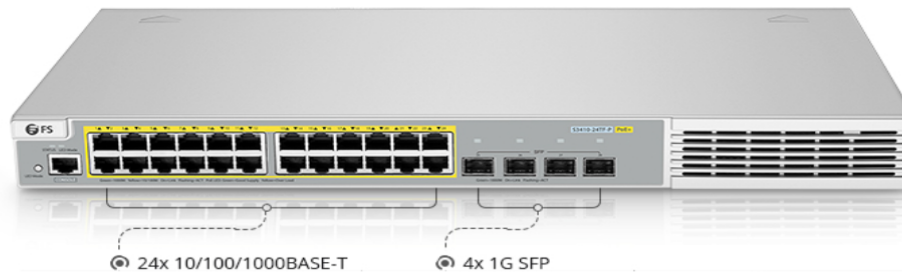

Figure 2.

S3410-24TF-P, 24-Port Ethernet L2+ PoE+ Switch, 24 x PoE+ Ports @370W, with 4 x 1Gb SFP Uplinks, Broadcom Chip

CONSOLE · USB · 24× 10/100/1000BASE-T RJ45 · 2× 1G RJ45/SFP Combo · 2× 1G/10G SFP+

Expansion Module Slots · Dual Power Supplies · Grounding Point

Figure 3.

S3410-24TS-P, 24-Port Gigabit Ethernet L2+ PoE+ Switch, 24 x PoE+ Ports @740W, with 2 x 10Gb SFP+ Uplinks and 2 x Combo SFP Ports, Broadcom Chip

2× 1G/10G SFP+

CONSOLE · USB · 48× 10/100/1000BASE-T RJ45 · 2× 1G RJ45/SFP Combo

Expansion Module Slots · Dual Power Supplies · Grounding Point
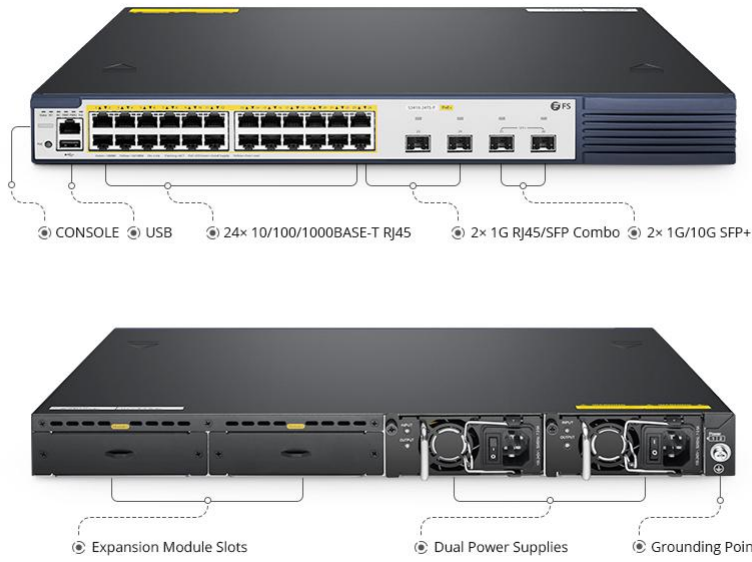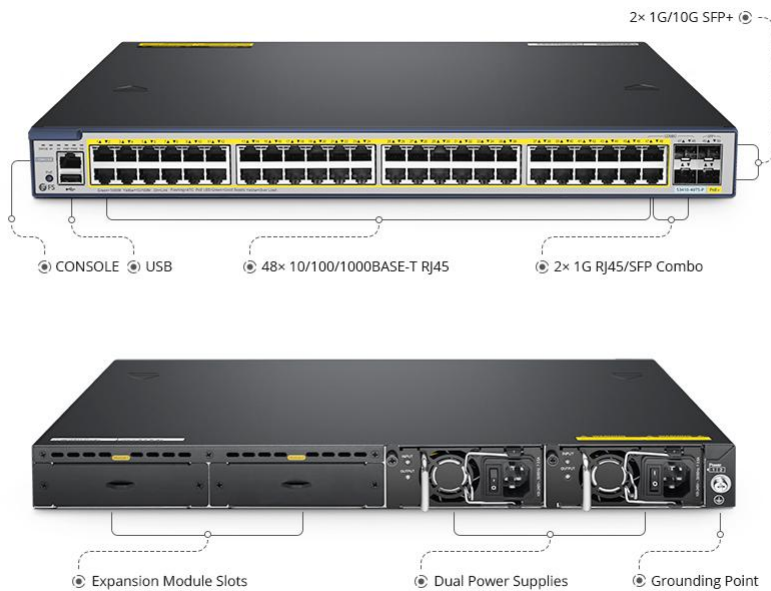
Figure 4.

S3410-48TS-P, 48-Port Gigabit Ethernet L2+ PoE+ Switch, 48 x PoE+ Ports @740W, with 2 x 10Gb SFP+ Uplinks and 2 x Combo SFP Ports, Broadcom Chip

Switch configurations and port density

Table 1 shows the FS S3410 series configurations and port density.

Table 1.   Switch configuration and port density

FS P/N	S3410-10TF-P	S3410-24TF-P	S3410-24TS-P	S3410-48TS-P
Description	10-Port Gigabit Ethernet L2+ PoE+ Switch, 8 x PoE+ Ports @125W, with 2 x 1Gb SFP Uplinks, Broadcom Chip, Fanless	24-Port Ethernet L2+ PoE+ Switch, 24 x PoE+ Ports @370W, with 4 x 1Gb SFP Uplinks, Broadcom Chip	24-Port Gigabit Ethernet L2+ PoE+ Switch, 24 x PoE+ Ports @740W, with 2 x 10Gb SFP+ Uplinks and 2 x Combo SFP Ports, Broadcom Chip	48-Port Gigabit Ethernet L2+ PoE+ Switch, 48 x PoE+ Ports @740W, with 2 x 10Gb SFP+ Uplinks and 2 x Combo SFP Ports, Broadcom Chip

Port

	S3410-10TF-P	S3410-24TF-P	S3410-24TS-P	S3410-48TS-P
1G port density	12	28	28	52
10G port density	-	-	2	2
10G port density with breakout cable	-	-	2	2
Console port	1	1	1	1
USB port	-	-	1	1

Memory and processor

	S3410-10TF-P	S3410-24TF-P	S3410-24TS-P	S3410-48TS-P
Switch chip	BCM56150 Chip	BCM56152 Chip	BCM56150 Chip	BCM56150 Chip
CPU	ARM A9 Single-core CPU, 400MHz	ARM A9 Single-Core CPU, 1 GHz	ARM A9 Single-core CPU, 1GHz	ARM A9 Single-core CPU, 1GHz
DRAM	512MB	512MB	512MB	512MB
SDRAM	512MB	512MB	512MB	512MB
Flash memory	256MB	256MB	512MB	512MB
Packet buffer	1.5MB	1.5MB	1.5MB	1.5MB

Note:

RJ45 ports can be used as 100M/1/2.5/5/10G ports for Ethernet connection, does not support 1G-T copper transceivers. SFP+ ports can be used for 1/10G connection.

Power supplies and fans

Table 2 provides more details on the FS S3410 series power supplies and fan specifications.

Table 2.   Power supply and fan specifications

Description	S3410-10TF-P	S3410-24TF-P	S3410-24TS-P	S3410-48TS-P
Power supply	1 Built-in	1 Built-in	1+1 Hot-swap Power Supplies	1+1 Hot-swap Power Supplies
Fan number	Fanless	1 Built-in	2 Built-in	2 Built-in
Airflow	-	Left/Right-to-Back	Left-to-Right	Left-to-Right
Acoustic noise	0dB	<78dB	<78dB	<78dB
Max. power consumption	165W	432W	880W	880W
Input-voltage range and frequency	AC: 100VAC~240VAC, 50~60Hz	AC: 100-240VAC, 50-60Hz DC: -36~ -72VDC, 50-60Hz	AC: 100-240VAC, 50-60Hz DC: -36~ -72VDC, 50-60Hz	AC: 100-240VAC, 50-60Hz DC: -36~ -72VDC, 50-60Hz
PoE standard	IEEE 802.3af/at	IEEE 802.3af/at	IEEE 802.3af/at	IEEE 802.3af/at
PoE power budget	125W	370W	740W	740W

Stacking

The FS S3410 Series switch models are designed for stacking switches as a single virtual switch.

Table 3 lists the supported stacking options.

Table 3.   Supported stacking options

Part Name	S3410-10TF-P	S3410-24TF-P	S3410-24TS-P	S3410-48TS-P
Stacking ports	-	port25-28	Port25-26 (2*10G)	Port49-50 (2*10G)
Supported stack members	-	Stack with other S3410-24TF-P or S3910-48TF with the same OS version	Stack with other S3410-24TS-P or S3410-48TS-P with the same OS version	Stack with other S3410-24TS-P or S3410-48TS-P with the same OS version
Maximum number of VSL links	-	4	4	2
Number of members	-	4	4	4

Switch performance

Table 4 shows performance specifications for the FS S3410 series switches.

Table 4.   Performance specifications

Performance for all S3410 Series Switches	S3410-10TF-P	S3410-24TF-P	S3410-24TS-P	S3410-48TS-P
Switching capacity	40 Gbps	128 Gbps	128 Gbps	176 Gbps
Forwarding rate	30 Mpps	96 Mpps	96 Mpps	132Mpps
Total number of MAC addresses	16K	16K	16K	16K
Total number of IPv4 routes (indirect routes)	64	100	500	500
Total number of IPv4 host routes (direct routes and ARP)	64	100	500	500
Total number of IPv6 routes (indirect routes)	64	100	500	500
Total number of IPv6 host routes (direct routes and NDP)	64	100	500	500
QoS ACL scale	750	1500	1500	1500
Security ACL scale	750	1500	1500	1500
VLAN IDs	4000	4000	4000	4000
Jumbo frame	9216	9216	9216	9216

Platform benefits

Table 5 lists the software spotlights for the FS S3410 series switches.

Table 5.   Software spotlights

Functionality	Description
For Wi-Fi 6 Wireless APs	Support 10/100/1000Base-T adaptive Ethernet ports All RJ45 ports support IEEE 802.3af/at PoE
Sound Security Protection Policies	Support ARP spoofing prevention Support actively defending against various DDoS attacks Support hardware CPU protection mechanism Support Network Foundation Protection Policy (NFPP) Support DHCP snooping
High Reliability	Support STP/RSTP/MSTP Support the Virtual Router Redundancy Protocol (VRRP) Support the Rapid Link Detection Protocol (RLDP) Support the Ethernet Ring Protection Switching (ERPS) Support Rapid Ethernet Uplink Protection Protocol (REUP) Defend against up to 10 kV lightning
Easy Network Maintenance	Support SNMP (Managed by Zabbix), RMON, log and configuration backup Support Syslog, CLI, Web-based management, Telnet, SSH
Multiple Service Features	Support line-rate IPv4/IPv6 dual-stack multi-layer switching Support a wide range of IPv4 routing protocols, including static routing, RIP, and OSPF Support abundant IPv6 routing protocols, including static routing, RIPng, and OSPFv3
QoS	Support classifying and controlling various flows Support 802.1p, IP ToS, traffic filtering, SP, WRR Support flow bandwidth control, forwarding priority, and other flow policies
Energy Efficiency	Support the port auto-power-down Support Energy Efficient Ethernet Comply with the RoHS in materials and security
Perfect Compatibility Performance	Support IEEE802.3 standard protocols, enabling good interoperability with other brands of equipment at the forwarding level Compatible with standard protocols such as MSTP/OSPF/RIP/VRRP/SNMP/DHCP/NTP of other equipment

Software requirements

The FS S34100 Series Switches 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
S3410-10TF-P	S3410-10TF-P, 10-Port Gigabit Ethernet L2+ PoE+ Switch, 8 x PoE+ Ports @125W, with 2 x 1Gb SFP Uplinks, Broadcom Chip, Fanless	FSOS_11.4(1)_B74S5 Software
S3410-24TF-P	S3410-24TF-P, 24-Port Ethernet L2+ PoE+ Switch, 24 x PoE+ Ports @370W, with 4 x 1Gb SFP Uplinks, Broadcom Chip	FSOS_11.4(1)_B74S5 Software
S3410-24TS-P	S3410-24TS-P, 24-Port Gigabit Ethernet L2+ PoE+ Switch, 24 x PoE+ Ports @740W, with 2 x 10Gb SFP+ Uplinks and 2 x Combo SFP Ports, Broadcom Chip	FSOS_11.4(1)_B74S5 Software
S3410-48TS-P	S3410-48TS-P, 48-Port Gigabit Ethernet L2+ PoE+ Switch, 48 x PoE+ Ports @740W, with 2 x 10Gb SFP+ Uplinks and 2 x Combo SFP Ports, Broadcom Chip	FSOS_11.4(1)_B74S5 Software

Product specifications

Table 7 shows the product specifications for the FS S3410 series switches.

Table 7.   Product specifications

Description	S3410-10TF-P	S3410-24TF-P	S3410-24TS-P	S3410-48TS-P
Environmental				
Operating temperature	0 to 50ºC (32 to113°F)	0 to 50ºC (32 to113°F)	0 to 50ºC (32 to113°F)	0 to 50ºC (32 to113°F)
Storage temperature	-40 to 70°C (-40 to 158°F)	-40 to 70°C (-40 to 158°F)	-40 to 70°C (-40 to 158°F)	-40 to 70°C (-40 to 158°F)
Operating humidity	10% to 90% (Non-condensing)	10% to 90% (Non-condensing)	10% to 90% (Non-condensing)	10% to 90% (Non-condensing)
Storage humidity	5% to 95% (Non-condensing)	5% to 95% (Non-condensing)	5% to 95% (Non-condensing)	5% to 95% (Non-condensing)
Temperature alarm	Support	Support	Support	Support
Acoustic noise	0dB	<78dB	<78dB	<78dB
Physical specifications				
Dimensions (HxWxD)	1.73''x13.39''x10.24'' (44x340x260mm)	1.73''x17.32''x10.24'' (44x440x260mm)	1.73''x17.32''x12.59'' (44x440x320mm)	1.73''x17.32''x14.17'' (44x440x360mm)

Description	S3410-10TF-P	S3410-24TF-P	S3410-24TS-P	S3410-48TS-P
Rack units (RU)	1U	1U	1U	1U
Weight	5.51 lbs (2.5kg)	12.13 lbs (5.5kg)	12.79 lbs (5.8kg)	14.99 lbs (6.8kg)
Distance	100M	100M	100M	100M

Electrical

Voltage (auto ranging)	100-240VAC	100-240VAC	100-240VAC	100-240VAC
Frequency	50-60Hz	50-60Hz	50-60Hz	50-60Hz
Current				
Power rating (maximum consumption)	125W	432W	370W(Single-power) 740W(Dual-power)	370W(Single-power) 740W(Dual-power)

Mean-time between failures

MTBF (hours)	>200K	>200K	>200K	>200K

Connectors

Connectors and cabling	• 1/10GBASE-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) • SFP28 transceivers: LC fiber connectors (single-mode or multimode fiber) • QSFP+ transceivers: MPO and LC fiber connectors (single-mode or multimode fiber) • QSFP28 transceivers: MPO and LC fiber connectors (single-mode or multimode fiber) • FS StackWise stacking ports: copper-based FS StackWise cabling • Ethernet management port: RJ-45 connectors, 4-pair Cat5 UTP cabling • 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	802.1s, 802.1w, 802.1x, 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.

Figures 5 shows some of the authoritative certifications obtained by FS 3410 Series Switches.

Figure 5.

▌ Warranty, service and support

FS S3410 Series Switches 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 8 provides the ordering information for S3410 series switches.

Table 8.   Ordering information

FS P/N	Product description
Switch hardware	
S3410-10TF-P	S3410-10TF-P, 10-Port Gigabit Ethernet L2+ PoE+ Switch, 8 x PoE+ Ports @125W, with 2 x 1Gb SFP Uplinks, Broadcom Chip, Fanless
S3410-24TF-P	S3410-24TF-P, 24-Port Ethernet L2+ PoE+ Switch, 24 x PoE+ Ports @370W, with 4 x 1Gb SFP Uplinks, Broadcom Chip
S3410-24TS-P	S3410-24TS-P, 24-Port Gigabit Ethernet L2+ PoE+ Switch, 24 x PoE+ Ports @740W, with 2 x 10Gb SFP+ Uplinks and 2 x Combo SFP Ports, Broadcom Chip
S3410-48TS-P	S3410-48TS-P, 48-Port Gigabit Ethernet L2+ PoE+ Switch, 48 x PoE+ Ports @740W, with 2 x 10Gb SFP+ Uplinks and 2 x Combo SFP Ports, Broadcom Chip

Additional information

For more information about the S3410 Series Switches, contact your account manager or visit:

https://www.fs.com/search_result?keyword=S3410

Document history

New or revised topic	Described in	Date
Updates to FS S3410 Series Switches Data Sheet	Updated all	11/25/2022

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