

A solid red circle.

FS S3100 Series Switches Data Sheet

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Product overview

FS S3100 series switches are next-generation gigabit Ethernet switches. They support full gigabit downlink data exchange and fixed 10G uplink data exchange. The series can be used in education, healthcare, enterprise-level and commercial customers' smart classrooms, multimedia classrooms, offices, clinic wards, satellite branches and other wiring-constrained environments to provide proximity access and large bandwidth for wireless, ultra-HD digital video cameras, smart electronic bedside screens, and other IP information points for a large number of IOTs and other IP information points.

S3100-8TMS-P, 8-port PoE+ switch is equipped with 8x 10M/100/1000MBASE-T ports, 2x 1000M/2.5G/5GBASE-T ports, 2x 1/10Gb SFP+ uplinks.

S3100-16TF-P, 16-port PoE+ switch is equipped with 16x 10M/100/1000MBASE-T ports, 2x 1Gb SFP uplinks.

S3100-16TMS-P, 16-port PoE+ switch is equipped with 16x 10M/100/1000MBASE-T ports, 2x 1000M/2.5G/5GBASE-T ports, 2x 1/10Gb SFP+ uplinks.

S3100-16TF, 16-port switch is equipped with 16x 10/100/1000M RJ45 ports, 2x 1Gb SFP uplinks.

These 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. This enterprise switch adopts a cutting-edge Broadcom chip to deliver 432 Gbps switching capacity. Fanless design ensures noise-free switch operation, reduced cost, and power consumption. This access switch delivers a compact, cost-effective solution for the Internet, education, medical and other industries.

Product highlights

- Broadcom BCM56150 Chip
- Fanless Design, Always Working <35dB
- Small Size Makes Installation Flexible and Quick
- Support DHCP, Voice VLAN, LACP, RIP, OSPFv3, etc.
- Support IEEE 802.1X, SSH, ACL, RADIUS, TACACS+, etc. for Security
- Advanced Network Monitoring Using SFlow
- Support WEB/CLI/SNMP/SSH for Flexible Operation
- ≥8KV Lightning Protection, Innovative Anti-wave and Anti-surge Design

Platform details

Switch models and configurations

Figures 1 through 4 show the FS S3100 series switches.

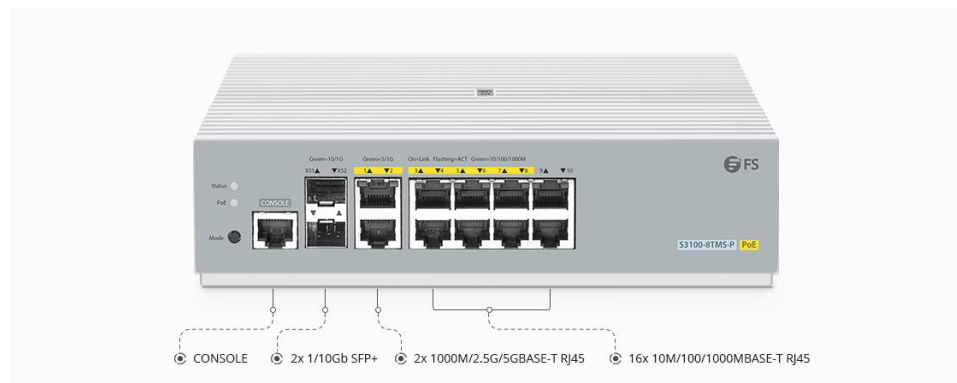


Figure 1.

S3100-8TMS-P, 8-Port Gigabit Ethernet L2+ PoE+ Switch, 8 x PoE+ Ports@125W, 2 x 5Gb RJ45, with 2 x 10Gb SFP+ Uplinks, Broadcom Chip, Fanless

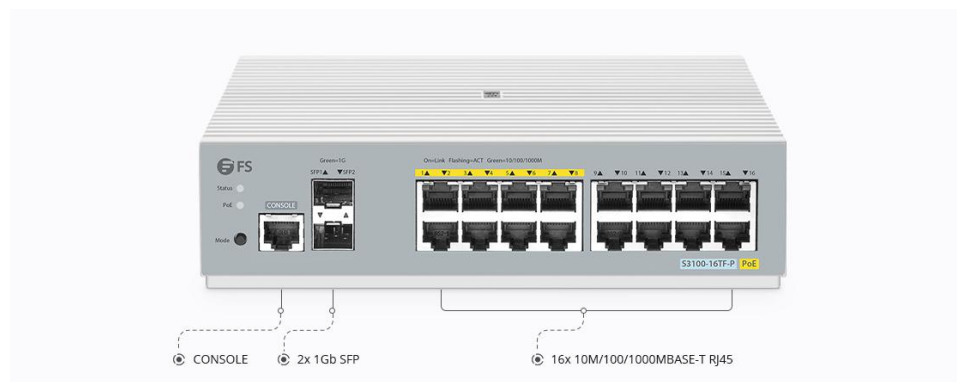


Figure 2.

S3100-16TF-P, 16-Port Gigabit Ethernet L2+ PoE+ Switch, 8 x PoE+ Ports@125W, with 2 x 1Gb SFP Uplinks, Broadcom Chip, Fanless

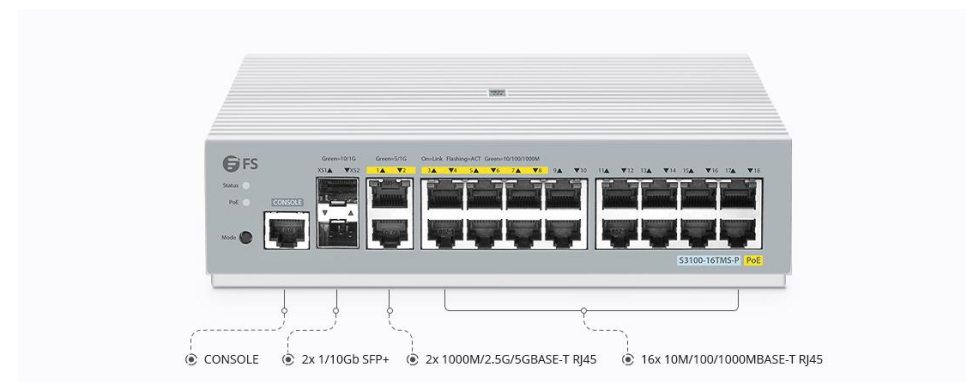


Figure 3.

S3100-16TMS-P, 16-Port Gigabit Ethernet L2+ PoE+ Switch, 8 x PoE+ Ports@125W, 2 x 5Gb RJ45, with 2 x 10Gb SFP+ Uplinks, Broadcom Chip, Fanless

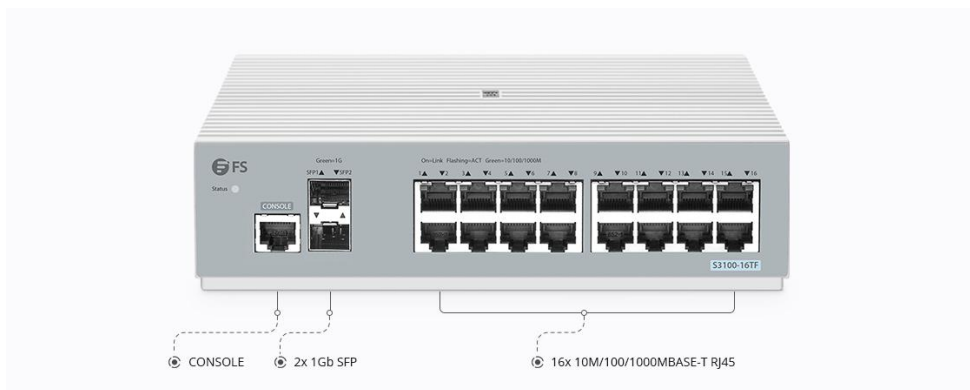


Figure 4.

S3100-16TF, 16-Port Gigabit Ethernet L2+ Switch, 16 x Gigabit RJ45, with 2 x 1Gb SFP Uplinks, Broadcom Chip, Fanless

Switch configurations and port density

Table 1 shows the FS S3100 series configurations and port density.

Table 1. Switch configuration and port density

FS P/N	S3100-8TMS-P	S3100-16TF-P	S3100-16TMS-P	S3100-16TF
Description	S3100-8TMS-P, 8-Port Gigabit Ethernet L2+ PoE+ Switch, 8 x PoE+ Ports@125W, 2 x 5Gb RJ45, with 2 x 10Gb SFP+ Uplinks, Broadcom Chip, Fanless	S3100-16TF-P, 16-Port Gigabit Ethernet L2+ PoE+ Switch, 8 x PoE+ Ports@125W, with 2 x 1Gb SFP Uplinks, Broadcom Chip, Fanless	S3100-16TMS-P, 16-Port Gigabit Ethernet L2+ PoE+ Switch, 8 x PoE+ Ports@125W, 2 x 5Gb RJ45, with 2 x 10Gb SFP+ Uplinks, Broadcom Chip, Fanless	S3100-16TF, 18-Port Gigabit Ethernet L2+ Switch, 16 x Gigabit RJ45, with 2 x 1Gb SFP Uplinks, Broadcom Chip, Fanless
Port				
1G port density	8	18	16	18
5G port density	2	–	2	–
10G port density	2	–	2	–
Management ports	1	1	1	1
Console port	1	1	1	1
Memory and processor				
Switch chip	BCM56150	BCM56150	BCM56150	BCM56150
CPU	MAC chip built-in single-core CPU, 1GHz	MAC chip built-in single-core CPU, 1GHz	MAC chip built-in single-core CPU, 1GHz	MAC chip built-in single-core CPU, 1GHz
DRAM	–	–	–	–
SDRAM	512MB	512MB	512MB	512MB
Flash memory	256MB	256MB	256MB	256MB

Switch performance

Table 2 shows performance specifications for the FS S3100 series switches.

Table 2. Performance specifications

Performance for all S3100 Series Switches	S3100-8TMS-P	S3100-16TF-P	S3100-16TMS-P	S3100-16TF
Switching capacity	66 Gbps	36 Gbps	82 Gbps	36 Gbps
Forwarding rate	49.1 Mpps	26.8 Mpps	61 Mpps	26.8 Mpps
Total number of MAC addresses	16000	16000	16000	16000
Total number of IPv4 routes (indirect routes)	500	500	500	500
Total number of IPv4 host routes (direct routes and ARP)	500	500	500	500
Total number of IPv6 routes (indirect routes)	500	500	500	500
Total number of IPv6 host routes (direct routes and NDP)	500	500	500	500
QoS ACL scale	1500	1500	1500	1500
VLAN IDs	4094	4094	4094	4094
Total switched virtual interfaces (SVIs)	–	–	–	–
Jumbo frame	9216	9216	9216	9216

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

The FS S3100 Series switches ship with the Curing single AC power supply as default.

Table 3 provides more details on the FS S3100 series power supplies and fan specifications.

Table 3. Power supply and fan specifications

Description	S3100-8TMS-P	S3100-16TF-P	S3100-16TMS-P	S3100-16TF
Power supply	Curing single AC power supply	Curing single AC power supply	Curing single AC power supply	Curing single AC power supply
Fan number	Fanless	Fanless	Fanless	Fanless
Acoustic noise	<35dB	<35dB	<35dB	<35dB
Max. power consumption	<25W (Full Load without PoE) <150W (Full Load with PoE)	<25W (Full Load without PoE) <150W (Full Load with PoE)	<25W (Full Load withoutPoE) <150W (Full Load with PoE)	<25W (Full Load without PoE)
Input-voltage range and frequency	- Rated voltage range: 200–240VAC; 50–60Hz - Maximum voltage range: –AC input: 100–240VAC; –High–Voltage DC input: Support			
PoE standard	IEEE 802.3af/at	IEEE 802.3af/at	IEEE 802.3af/at	–
PoE budget	125W	125W	125W	–

Platform benefits

Table 4 lists the software spotlights for the FS S3100 series switches.

Table 4. Software spotlights

Functionality	Description
Sound security protection policies	Support ARP spoofing prevention Support actively defending against ICMP requests Support hardware CPU protection mechanism Support Network Foundation Protection Policy (NFPP) Support DHCP snooping
High Reliability And Energy Efficiency	Support EEE (802.3az) Support BPDU guard/filtering Hardware architecture to reduce energy consumption and noise
Easy network maintenance	Support SNMP v1/v2c/v3 Support Syslog, WEB UI, Telnet, RMON, SSH, Syslog/Debug Support CLI-based, using console ports
Dual-Network Design on One Device	Support equipped with dual-network expansion modules Support manage two physically isolated networks on one device Support deploy two suits of devices and accessories indoors. Support various installation methods
QoS	Support Port traffic identification Support Port traffic rate limiting Support 802.1p/DSCP/ToS traffic classification Support IP ToS, DSCP Support Eight priority queues per port
Strong Multi-Service Support Capability	Support LACP dynamic aggregation Support ERPS, switching time ≤ 50 ms Support voice VLAN, 4K static VLAN, IEEE 802.1Q VLAN, MAC-based VLAN and Protocol-based VLAN Support GVRP, QinQ

Software requirements

The FS S3100 Series Switches 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
S3100-8TMS-P	S3100-8TMS-P, 8-Port Gigabit Ethernet L2+ PoE+ Switch, 8 x PoE+ Ports@125W, 2 x 5Gb RJ45, with 2 x 10Gb SFP+ Uplinks, Broadcom Chip, Fanless	–
S3100-16TF-P	S3100-16TF-P, 16-Port Gigabit Ethernet L2+ PoE+ Switch, 8 x PoE+ Ports@125W, with 2 x 1Gb SFP Uplinks, Broadcom Chip, Fanless	–
S3100-16TMS-P	S3100-16TMS-P, 16-Port Gigabit Ethernet L2+ PoE+ Switch, 8 x PoE+ Ports@125W, 2 x 5Gb RJ45, with 2 x 10Gb SFP+ Uplinks, Broadcom Chip, Fanless	–
S3100-16TF	S3100-16TF, 18-Port Gigabit Ethernet L2+ Switch, 16 x Gigabit RJ45, with 2 x 1Gb SFP Uplinks, Broadcom Chip, Fanless	–

Product specifications

Table 6 shows the product specifications for the FS S3100 series switches.

Table 6. Product specifications

Description	S3100-8TMS-P	S3100-16TF-P	S3100-16TMS-P	S3100-16TF
Environmental				
Operating temperature	0 to 45°C (32 to 113°F)	0 to 45°C (32 to 113°F)	0 to 45°C (32 to 113°F)	0 to 45°C (32 to 113°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	5% to 95% (Non-condensing)	5% to 95% (Non-condensing)	5% to 95% (Non-condensing)	5% to 95% (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	Supported	Supported	Supported	Supported
Acoustic noise	<35dB	<35dB	<35dB	<35dB
Physical specifications				
Dimensions (HxWxD)	12.17"x8.27"x9.25" (55x210x250mm)	12.17"x8.27"x9.25" (55x210x235mm)	12.17"x8.27"x9.25" (55x210x250mm)	12.17"x8.27"x9.25" (55x210x250mm)
Weight	6.83 lbs (3.1kg)	6.06 lbs (2.75kg)	6.86 lbs (3.11kg)	6.89 lbs (3.12kg)

Description	S3100-8TMS-P	S3100-16TF-P	S3100-16TMS-P	S3100-16TF
Electrical				
Voltage (auto ranging)	100–240VAC	100–240VAC	100–240VAC	100–240VAC
Frequency	50–60Hz	50–60Hz	50–60Hz	50–60Hz
Current	3A Max	3A Max	3A Max	0.6A Max
Power rating (maximum consumption)	<25W (Full Load without PoE) <150W (Full Load with PoE)	<25W (Full Load without PoE) <150W (Full Load with PoE)	<25W (Full Load without PoE) <150W (Full Load with PoE)	<25W (Full Load without PoE)
Mean-time between failures				
MTBF (hours)	>200000	>200000	>200000	>200000
Connectors				
Connectors and cabling	–			
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 200 and 240 VAC. Use the supplied AC power cord to connect the AC power connector to an AC power outlet			
Standards				
Standards	802.1w, 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 4 shows some of the authoritative certifications obtained by FS S3100 Series Switches.



Figure 4.

Optics supported

For details about the optical modules available, visit:

S3100-8TMS-P: <https://www.fs.com/products/160708.html>

S3100-16TMS-P: <https://www.fs.com/products/160710.html>

S3100-16TF-P: <https://www.fs.com/products/160709.html>

S3100-16TF: <https://www.fs.com/products/160919.html>

Warranty, service and support

FS S3100 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 7 provides the ordering information for S3100 series switches.

Table 7. Ordering information

FS P/N	Product description
Switch hardware	
S3100-8TMS-P	S3100-8TMS-P, 8-Port Gigabit Ethernet L2+ PoE+ Switch, 8 x PoE+ Ports@125W, 2 x 5Gb RJ45, with 2 x 10Gb SFP+ Uplinks, Broadcom Chip, Fanless
S3100-16TF-P	S3100-16TF-P, 16-Port Gigabit Ethernet L2+ PoE+ Switch, 8 x PoE+ Ports@125W, with 2 x 1Gb SFP Uplinks, Broadcom Chip, Fanless
S3100-16TMS-P	S3100-16TMS-P, 16-Port Gigabit Ethernet L2+ PoE+ Switch, 8 x PoE+ Ports@125W, 2 x 5Gb RJ45, with 2 x 10Gb SFP+ Uplinks, Broadcom Chip, Fanless
S3100-16TF	S3100-16TF, 18-Port Gigabit Ethernet L2+ Switch, 16 x Gigabit RJ45, with 2 x 1Gb SFP Uplinks, Broadcom Chip, Fanless

Additional information

For more information about the S3100 Series Switches, contact your account manager or visit

https://www.fs.com/search_result?keyword=S3100

Document history

New or revised topic	Described in	Date
Updates to FS S5860 Series Switches Data Sheet	Updated all	9/15/2022



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