

FS S5810-48FS and S5800-48F4SR Switch Competitive Comparison



S5810-48FS



S5800-48F4SR

Product Comparison Models

- S5810-48FS
- S5800-48F4SR

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Product Software Function

Both of the S5810-48FS and S5800-48F4SR switches offer rich layer 2 and layer 3 functions. The Layer 3 equipment network will be more flexible, which can do more strategies, software control and software linkage, etc..

- Flexible Layer 3 device networking, supporting IPv4 and IPv6 dual-stack protocols.
- Support diversified security features to ensure network stability and satisfy users with more choices.
- Rich operation and maintenance methods to meet various operation and maintenance needs of technical experts and technical novices.
- Provides full gigabit access and unmatched scalability for 10G performance.
- Support VRRP to effectively ensure network stability. It is suitable for financial, retail, call center and other scenarios.
- Supports LACP. When a link fails, the LACP mode will automatically adjust the links in the aggregation group, and other available member links in the group will take over the failed links to maintain load balance. In this way, the logical bandwidth between devices can be increased and the reliability of the network can be improved without hardware upgrade.

The Difference Between S5810-48FS and S5800-48F4SR Switches in terms of Software

Compared with S5800-48F4SR, S5810-48FS switch

- Support Stacking¹ 8 units of the same series.
- Green and energy-saving, supporting EEE (Efficient Energy-Efficient Ethernet) protocol, which can help customers reduce expenses while prolonging the service life of equipment.

Compared with S5810-48FS, S5800-48F4SR switch

- Support OAM, provide a more complete Ethernet OAM mechanism, monitor the network running status in real time, and quickly locate and detect faults.

Models	S5810-48FS	S5800-48F4SR
Stackability	Up to 8 Units	/
Security	<ul style="list-style-type: none"> Support hardware-based IPv6 ACLs Support hardware CPU protection mechanism Support DHCP snooping² Support the IP-based Telnet access control Support the Secure Shell (SSH³) and SNMPv3 Support Network Foundation Protection Policy (NFPP) 	<ul style="list-style-type: none"> Support IPv4/IPv6 ACL and MAC whitelisting Support ARP inspection Support IP source guard Support IEEE802.1X RADIUS authentication, TACAS+ Support DHCP Server Relay/Snooping Support Control Plane Protect (CoPP) black & white list and rate limit features
Operation and Maintenance Method	<ul style="list-style-type: none"> Support SNMP (Managed by Zabbix), RMON, log and configuration backup Support Syslog, CLI, Web-based management, Telnet, etc. 	<ul style="list-style-type: none"> Support CLI-based, using console ports Support WEB UI, Telnet, SSH, using 10/100/1000Mbps management port or service ports Support SNMP (Managed by Zabbix) v1, v2, and v3 Support RPC-API for Software Defined Network (SDN)
Type	Fully Managed Pro	Fully Managed Plus
BFD	Yes	Yes
ERPS⁴	Yes	Yes
VRRP⁵	Yes	Yes
STP/RSTP/MSTP	Yes	Yes
Voice Vlan⁶	Yes	Yes
MPLS	Yes	Yes
LACP⁷	Yes	Yes
EEE	Yes	No
RLDP	Yes	No
REUP	Yes	No
OAM	No	Yes
MLAG⁸	No	Yes

Product Performance

- Adopt modular power supply to improve equipment stability and reliability. When the power supply fails, it can be directly replaced with continuous network.
- Three layers of anti-corrosion coating are used for key components that are prone to dust accumulation, such as fans and power supplies, to prevent corrosion and dust.

The Difference Between S5810-48FS and S5800-48F4SR Switches in terms of Software

Compared with S5810-48FS, S5800-48F4SR has greatly improved hardware functions

- Having larger flash memory allows customers to save more configurations and systems etc. for easier maintenance, and larger DRAM makes the device run better.

Compared with S5800-48F4SR, S5810-48FS

- The port lightning protection index reaches 6KV.

Models	S5810-48FS	S5800-48F4SR
Power Supply	2 (1+1 Redundancy) Hot-swappable	2 (1+1 Redundancy) Hot-swappable
Fan Number	3 (2+1 Redundancy) Built-in	3 Built-in
Flash Memory	512MB	8GB (eMMC)
RAM	1GB (SDRAM)	2GB (RAM)
Lightning Protection	above 6KV	/

Product Hardware

- Compared with S5800-48F4SR, S5810-48FS adopts Broadcom BCM56340 switch chip to ensure high performance. The MAC chip is highly integrated with the CPU, and has the characteristics of high stability, high reliability, and low power consumption.
- Compared with the S5810-48FS, the S5800-48F4SR uses up to 9MB packet buffer, has a larger routing table and MAC address.

Models	S5810-48FS	S5800-48F4SR
RJ45 Ports	48x 1G SFP	48x 1G SFP
SFP+ Ports	4x 10G SFP+	4x 10G SFP+
Layer Type	L3	L3
Switching Capacity (Gbps)	176 Gbps	176 Gbps
Forwarding Rate(Mpps)	132 Mpps	132 Mpps
Packet Buffer	4MB	9MB
Routing Table	12,000	IPv4: 57,344 IPv6: 4,096
MAC Address	64K	114K
Switch Chip	BCM56340	/

Features Explanation

Stacking¹: The switch has the ability to be connected to other switches and operate together as a single unit, which is useful for quickly increasing the capacity of a network.

DHCP Snooping²: DHCP snooping is a security feature that acts like a firewall between untrusted hosts and trusted DHCP servers. The fundamental use case for DHCP snooping is to prevent unauthorized (rogue) DHCP servers offering IP addresses to DHCP clients.

SSH³ (Secure Shell): SSH uses the key login function to encrypt and verify network data, provide secure remote access connections, and can effectively guarantee the normal development of users' network services. SSH protocol provides secure remote access.

ERPS⁴ (Ethernet Ring Protection Switching): ERPS implements loop blocking and link recovery faster than STP on the main device, and can effectively add redundancy and up-time protection to any network. ERPS enables failover protection in sub-50ms.

VRRP⁵: The Virtual Router Redundancy Protocol is a computer networking protocol that provides for automatic assignment of available Internet Protocol (IP). Suitable for scenarios such as finance, retail, call center, etc.

Voice VLAN⁶: The Voice VLAN feature enables access ports to carry IP voice traffic from an IP phone. When the switch is connected to an IP Phone, the phone sends voice traffic with Layer 3 IP precedence and Layer 2 class of service (CoS) values.

LACP⁷: Combining multiple network connections in parallel in order to increase throughput beyond what a single connection could sustain, and to provide redundancy in case one of the links should fail.

MLAG⁸: A multi-chassis link aggregation group (MLAG or MC-LAG) is a method of inverse multiplexing over multiple Ethernet links, thereby increasing bandwidth and providing redundancy.

Online Resources

S5810-48FS Switch Datasheet: <https://img-en.fs.com/file/datasheet/s5810-series-switches-datasheet.pdf>

S5800-48F4SR Switch Datasheet: <https://img-en.fs.com/file/datasheet/s5800-series-switches-datasheet.pdf>



 <https://www.fs.com>



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