FS

FS S5860-20SQ and S5850-24S2Q Switch Competitive Comparison

S5860-20SQ

S5850-24S2Q

Product Comparison Models

- S5860-20SQ

- S5850-24S2Q

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Product Software Function

Both of the S5860-20SQ and S5850-24S2Q 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.. They both support high throughput and low latency to meet the needs of high-density access and high-performance aggregated users.

- Support diversified security features to ensure network stable and meet more choices for users.

- Applied in aggregation layer of large networks, core of small and medium-sized networks, full 10G layer 3 access for large enterprises or office buildings.

- The wide variety of management mechanisms provides network security protection, high-security access control and effective network access control.

- The comprehensive management policies help to manage bandwidth and guarantee the key services such as voice call, multicast audio and video services, and video on demand.

- Green and energy-saving, it supports EEE (Efficient Energy-Efficient Ethernet) protocol, which can help customers reduce expenses while extending the service life of equipment.

Models	S5860-20SQ	S5850-24S2Q
Security	- Port security, IP Source Guard, Dynamic Arp Inspection; - Support IP+MAC data binding using DHCP SNOOPING[1]; - Support the use of 1X IP+MAC data binding; - Port Security, DHCP Snooping and DHCP Option 82; - Support IP+MAC data binding using IP SOURCE GUARD; - Hardware CPP, ICMP anti-attack, anti-IP anti-scanning attack, DHCP V6 anti-attack; - Support trusted ARP and VRRP dual-core environmentdeployment; - Web Portal V2.0; - Support IPv6 certification;	- Port security, IP Source Guard, Dynamic Arp Inspection; - Prevent DDOS attack (ICMP Flood / Smurf / Fraggle / LAND / SYN Flood) - Support CPU Traffic Protection, Storm Control and CPU loadoptimization features; - Port Security, DHCP Snooping and DHCP Option 82; - Support CoPP (Control Plane Protect) black & white list and rate limit features; - Support centralized 802.1x authentication feature to forbidden illegal user accessing network.
DHCP Server	YES	YES
Operation and Maintenance Method	SNMP, RMON, HTTP, Telnet, SSH, SFLOW, OpenFlow[1], Syslog/Debug	SSH, Telnet, SNMP, HTTP, RMON, SFLOW, Syslog/Debug
Layer 3 Feature	Support IPv4/IPv6 RIP/OSPF/BGP/ISIS	Support IPv4/IPv6 RIP/OSPF/BGP/ISIS

Product Reliability

- Stacking[2] and MLAG[3] device-level redundancy ensures uninterrupted network connectivity and millisecond fault recovery: Stacking or MLAG devices and peripheral devices are connected through aggregated links. If one of the devices or a member link fails, it only takes 50 to 200 milliseconds to switch to another.

- LACP[4] (Link Aggregation) helps to increase throughput beyond what a single connection could sustain, and to provide redundancy in case one of the links should fail.

- VRRP[5] effectively ensures network stability, enabling the switch to be applied in finance, retail, call center, etc..

- ERPS[6] shortens the convergence time of the ring network and eliminates the influence of network size, improves the availability and durability of the Ethernet ring, and can complete convergence within 50 milliseconds when the link is interrupted.

- RLDP[7] can quickly detect the on-off of the link and the unidirectionality of the optical fiber link. The loop detection function under the port to prevent network failures caused by loops formed by privately connecting Hub and other devices under the port, which is important for scenarios such as retail, hospital, enterprise, etc..

- In the case of not enabling STP, REUP[8] can be used to provide a fast on-chain protection function. REUP enables users to provide basic link redundancy even when STP is turned off, while providing millisecond-level failure recovery faster than STP. Suitable for scenarios that require quick failure recovery.

- Support rich Authentication methods, QoS, CPU Protection, ARP spoofing prevention.

Models	S5860-20SQ	S5850-24S2Q
Stacking	YES	NO
MLAG	NO	YES
LACP	YES	YES
VRRP	YES	YES
ERPS	YES	YES
RLDP	YES	NO
REUP	YES	NO
CPU Protection Policy (CPP)	YES	YES

Product Reliability

The S5860-20SQ provides flexible 10G, multi-rate (10G/1G) access capability and supports 25G/40G uplink capability, which can fully meet the users' needs of high density access and high performance convergence.

It provides high performance, perfect end-to-end service quality, flexible and rich security settings for situations including large network convergence, small & medium-sized network core and data center access in the enterprise network. It meets the needs of a high - speed, safe and intelligent enterprise network perfectly.

Models	S5860-20SQ	S5850-24S2Q
10G SFP+ Port	20	24
25G SFP28 Port	4	/
40G QSFP+ Port	2	2
Layer Type	Layer 3	Layer 3
Switch Chip / CPU	BCM56170 / ARM A9 Single-Core CPU	SOC (Dual core / ARM A53)
Switching Capacity	760 Gbps	640 Gbps
Forwarding Rate	565.47 Mpps	480 Mpps
Packet Buffer	4MB	9MB
ARP Capacity	16K	12K
MAC Address	32K	96K

Product Hardware

- Use modular power supplies and smart fans to improve equipment stability and reliability. When the power supply fails, it can be directly replaced by the continuous network.

- Larger flash memory allows customers to save more configurations and systems, etc., to facilitate maintenance

- The key components such as fans and power supply are designed with anti-dust corrosion treatment.

- Diversed combination of different ports can safisfy more applicaiton scenarios needs and allow users to networking more flexibly. Fixed 25G/40G ports maximize the ROI and make it easy to upgrade in the future.

- The Intelligent and efficient fans that support front and back wind direction help to better protect modules and equipment.

Models	S5860-20SQ	S5850-24S2Q
Power Supply	1+1 Hot-swappable Modular Power Supplies	1+1 Hot-swappable Modular Power Supplies
Fan Number	2 (1+1 Redundancy)	3 (2+1 Redundancy)
Flash Memory	1GB	8GB
Protection	6KV-8KV	2KV
Airflow	Front-to-Back	Front-to-Back

Features Explanation

Openflow[1]: OpenFlow is a communications protocol that gives access to the forwarding plane of a network switch or router over the network.

Stacking[2]: 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.

MLAG[3]: 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.

LACP[4]: 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.

VRRP[5]: 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.

ERPS[6]: 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.

RLDP[7]: The Rapid Link Detection Protocol is a link protocol used to quickly detect Ethernet link failures. Suitable for scenarios such as retail, hospital, enterprise, etc.

REUP[8]: Rapid Ethernet Uplink Protection provides a fast on-chain protection function. It is a solution that provides a reliable and efficient backup and switching mechanism for dual uplinks. It can provide faster convergence performance and is often used in dual-uplink networking. Suitable for scenarios that require quick failure recovery.

Online Resources

S5860-20SQ Switch Datasheet: https://img-en.fs.com/file/datasheet/s5860-series-switches-datasheet.pdf
S5850-24S2Q Switch Datasheet: https://img-en.fs.com/file/datasheet/s5850-24s2q-switch-datasheet.pdf

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