

FS S5860 Series Switches Data Sheet

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Product overview

FS S5860 Series Switches are high-performance and strong-security 10G L3 enterprise switch with 760Gbps/2.56T switching capacity. FS S5860-20SQ, S5860-24XB-U, S5860-48XMG-U, S5860-48MG-U, S5860-24MG-U, S5860-24XMG and S5860-48XMG are based on Broadcom® BCM56170, and S5860-48SC is based on Broadcom® BCM56873.

The S5860-20SQ 24-port 10Gb Ethernet layer 3 switch features 20x 1G/10G downlinks, 4x 10G/25G SFP28 and 2x 40G QSFP+ (can be split into 4x 10G SFP+) uplinks that all support virtual stacking. This managed enterprise switch adopts cutting-edge Broadcom chips to deliver 760 Gbps switching capacity and 565 Mpps forwarding rate. It is packed with redundant hot-swappable power supplies, dual hot-swappable smart fans and hardware-level dual-flash chip for superior processing performance and network reliability. FS agile S5860- 20SQ managed switch is ideal for large-scale campus network aggregations, small and medium-sized network cores to meet the needs of high-speed, safe, intelligent enterprise networks.

S5860-24XB-U is FS-developed next-generation L3 multi-gigabit hybrid optical/electrical switch. This switch features 24x 100M/1000M/2.5G/5G/10GBase-T and 4x 1/10G SFP+ with 4x 10G/25G SFP28 uplinks. With wired and wireless convergence, it also complies with PoE++ standard. This managed enterprise switch support virtual stacking, adopts cutting-edge Broadcom chips to deliver 760 Gbps switching capacity and 565 Mpps forwarding rate. It is packed with redundant hot-swappable power supplies, hot-swappable smart fans for superior processing performance and network reliability. It is ideal for campus network access/aggregation, 10 GE data center server access, and high-speed wireless device access.

The S5860-48SC 48-port 1G/10G Ethernet layer 3 switch features 48x 1G/10G downlinks, 8x 40G/100G QSFP28 uplinks that all support virtual stacking. This managed enterprise switch adopts cutting-edge Broadcom chip and ARM A9 Quad-Core CPU to deliver 2.56T switching capacity and 1,904 Mpps forwarding rate. It is packed with redundant hot-swappable power supplies, 3+1 hot-swappable smart fans and hardware-level dual-flash chip for superior processing performance and network reliability. The S5860-48SC managed switch is ideal for large-scale campus network aggregations, small and medium-sized network cores to meet the needs of high- speed, safe, intelligent enterprise networks. Also, this cost-effective campus network switch comes with an industry-leading 5-year limited lifetime warranty and 30-day return policy.

The S5860-24MG-U is FS-developed next-generation multi-GE switch. This switch features 24x 100M/1000M/2.5G/5GBase-T with 4x 10G/25G SFP28 uplinks, catering for demands of high-density access and high-performance aggregation. It delivers robust performance, sound end-to-end service quality, and rich security functions for the aggregation layer of large-scale networks, the core layer of small- and medium-scale networks, and campus data centers. This satisfies requirements on high speed, security, and intelligence for enterprise campus networks.

The S5860-48MG-U is FS-developed next-generation multi-GE switch. This switch features 48x 100M/1000M/2.5G/5GBase-T, 4x 25Gb SFP28, with 2x 40Gb QSFP+ Uplinks, catering for demands of high-density access and high-performance aggregation. It delivers robust performance, sound end-to- end service quality, and rich security functions for the aggregation layer of large-scale networks, the core layer of small- and medium-scale networks, and campus data centers. This satisfies requirements on high speed, security, and intelligence for enterprise campus networks.

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S5860-48XMG-U is FS-developed next-generation multi-GE switch. This switch features 48 x 100M/1000M/2.5G/5G/10GBase-T, 4x 25Gb SFP28, with 2x 40Gb QSFP+ Uplinks, catering for demands of high-density access and high-performance aggregation. It delivers robust performance, sound end-to-end service quality, and rich security functions for the aggregation layer of large-scale networks, the core layer of small- and medium-scale networks, and campus data centers. This satisfies requirements on high speed, security, and intelligence for enterprise campus networks.

S5860-24XMG is FS-developed next-generation multi-GE switch, which features 24x 100M/1000M/2.5G/5G/10GBase-T, 4 x 10Gb SFP+ and 2 x 25Gb SFP28 Uplinks. This managed enterprise switch adopts cutting-edge Broadcom chips to deliver 760 Gbps switching capacity and 565 Mpps forwarding rate. It is packed with redundant hot-swappable power supplies, dual hot-swappable smart fans and hardware-level dual-flash chip for superior processing performance and network reliability. FS agile S5860-24XMG managed switch is ideal for large-scale campus network aggregations, small and medium-sized network cores to meet the needs of high-density access and high-performance aggregation.

S5860-48XMG is FS-developed next-generation multi-GE switch, which features 48x 100M/1000M/2.5G/5G/10GBase-T, 4x 25Gb SFP28 and 2x 40Gb QSFP+ Uplinks. This managed enterprise switch adopts cutting-edge Broadcom chips to deliver 760 Gbps switching capacity and 565 Mpps forwarding rate. It is packed with redundant hot-swappable power supplies, dual hot-swappable smart fans and hardware-level dual-flash chip for superior processing performance and network reliability. FS agile S5860-48XMG managed switch is ideal for large-scale campus network aggregations, small and medium-sized network cores to meet the needs of high-density access and high-performance aggregation.

Product highlights

- Broadcom Chip, Support Stacking on All Optical Ports
- Support Stacking on All 10G Electrical Ports
- 1+1 Hot-swappable Power Supplies, Smart Fans
- Support QoS, DHCP, BGP, VRRP, QinQ, 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
- IPv4/IPv6 Dual-Stack for Future Network Expansion
- Up to 24 PoE++ Ports, Total Budget 740W (Only for S5860-24XB-U)
- Up to 24 PoE++ Ports, Total Budget 370W (Only for S5860-24MG-U)
- Up to 48 PoE++ Ports, Total Budget 1600W (Only for S5860-48MG-U and S5860-48XMG-U)
- Flexible 1G/10G/40G/100G Interface Speeds, All 100G Ports can be Split into 4x 25G Ports （Only for S5860-48SC Switch）

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Platform details

Switch models and configurations

Figures 1 through 8 show the FS S5860 series switches.

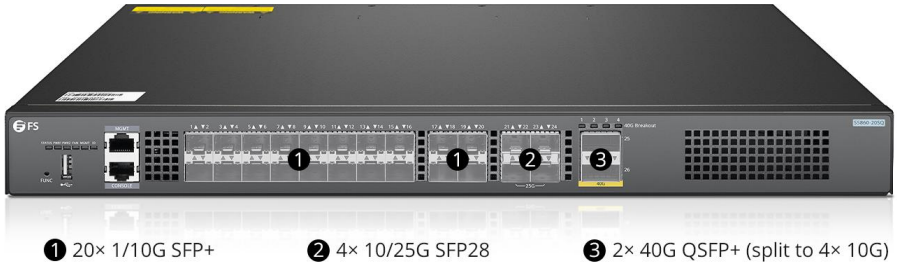


Figure 1.
S5860-20SQ, 24-Port Ethernet L3 Switch, 20 x 10Gb SFP+, with 4 x 25Gb SFP28 and 2 x 40Gb QSFP+, Support Stacking, Broadcom Chip

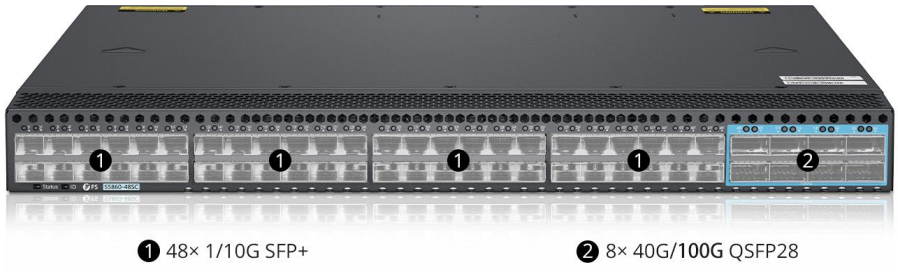


Figure 2.
S5860-48SC, 48-Port Ethernet L3 Switch, 48 x 10Gb SFP+, with 8 x 100Gb QSFP28, Support Stacking, Broadcom Chip



Figure 3.
S5860-24XB-U, 24-Port Ethernet L3 PoE++ Switch, 24 x 10GBASE-T/Multi-Gigabit, 4 x 10Gb SFP+, with 4 x 25Gb SFP28, Support Stacking, Broadcom Chip

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Platform details

Switch models and configurations

Figures 1 through 8 show the FS S5860 series switches.

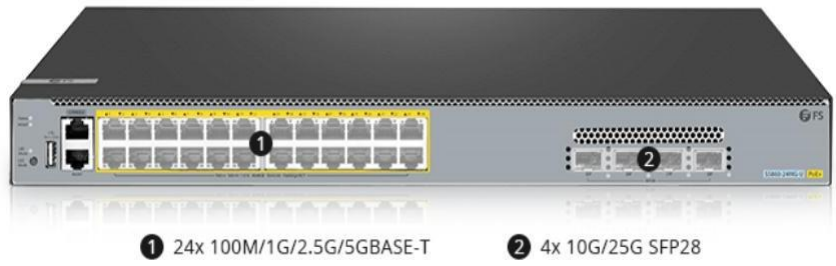


Figure 4.
S5860-24MG-U, 24-Port Ethernet L3 PoE++ Switch, 24 x 5GBASE-T/Multi-Gigabit Ports, with 4 x 25Gb SFP28 Uplinks, Support Stacking, Broadcom Chip

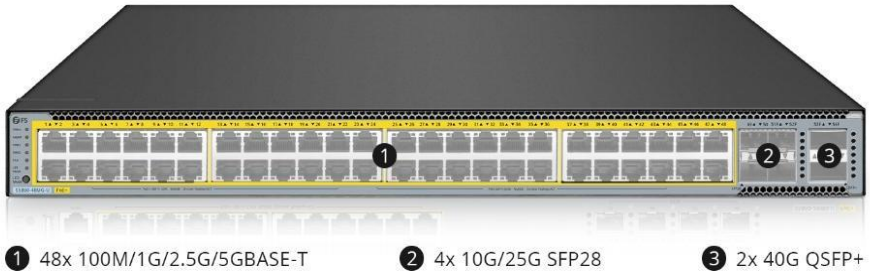


Figure 5.
S5860-48MG-U, 48-Port Ethernet L3 PoE++ Switch, 48 x 5GBASE-T/Multi-Gigabit Ports, 4 x 25Gb SFP28, with 2 x 40Gb QSFP+ Uplinks, Support Stacking, Broadcom Chip

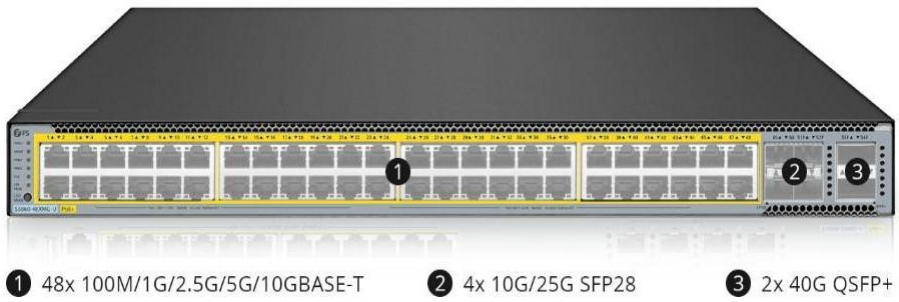


Figure 6.
S5860-48XMG-U, 48-Port Ethernet L3 PoE++ Switch, 48 x 10GBASE-T/Multi-Gigabit Ports, 4 x 25Gb SFP28, with 2 x 40Gb QSFP+ Uplinks, Support Stacking, Broadcom Chip

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Switch models and configurations

Figures 1 through 8 show the FS S5860 series switches.

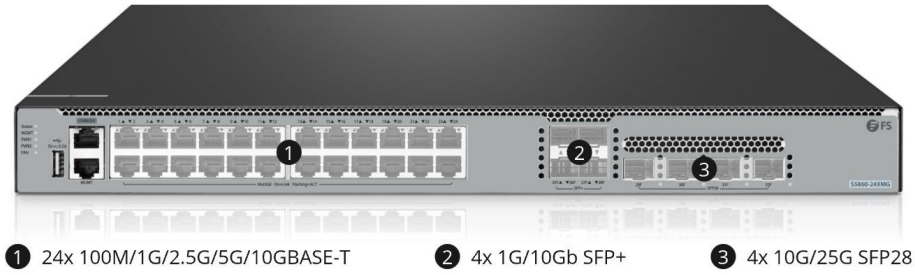


Figure 7.

S5860-24XMG, 24-Port Ethernet L3 Switch, 24 x 10GBASE-T/Multi-Gigabit Ports, 4 x 10Gb SFP+, with 4 x 25Gb SFP28 Uplinks, Support Stacking, Broadcom Chip

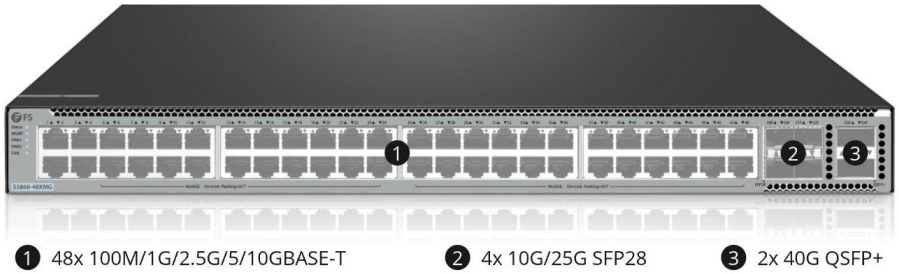


Figure 8.

S5860-48XMG, 48-Port Ethernet L3 Switch, 48 x 10GBASE-T/Multi-Gigabit Ports, 4 x 25Gb SFP28, with 2 x 40Gb QSFP+ Uplinks, Support Stacking, Broadcom Chip

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Switch configurations and port density

Table 1 through 2 show the FS S5860 series configurations and port density.

Table 1. Switch configuration and port density

FS P/N	S5860-20SQ	S5860-48SC	S5860-24XB-U
Description	24-Port Ethernet L3 Fully Managed Pro Switch, 20 x 10Gb SFP+, with 4 x 25Gb SFP28 and 2 x 40Gb QSFP+	48-Port Ethernet L3 Fully Managed Pro Switch, 48 x 10Gb SFP+, with 8 x 100Gb QSFP28	24-Port Ethernet L3 Fully Managed Pro PoE++ Switch, 24 x 10GBASE-T/Multi-Gigabit, 4 x 10Gb SFP+, with 4 x 25Gb SFP28
Port			
1G port density	20	48	28
10G port density	24	48	32
25G port density	4	-	4
40G port density	2	8	-
100G port density	-	8	-
10G port density with breakout cable	32	-	32
25G port density with breakout cable	4	-	4
40G port density with breakout cable	2	8	-
Management ports	1	1	1
Console port	1	1	1
USB port	1	1	1
Memory and processor			
Switch chip	BCM56170	BCM56873	BCM56170
CPU	ARM A9 Single-Core CPU, 1.25GHz	ARM A9 Quad-Core CPU, 1.2GHz	ARM A9 Single-Core CPU, 1.25GHz
DRAM	1GB	4GB	1GB
SDRAM	1GB	4GB	1GB
Flash memory	1GB	8GB (EMMC)	1GB

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FS P/N	S5860-20SQ	S5860-48SC	S5860-24XB-U
Latency	1.11μs	7.56μs	1.11μs
Packet buffer	4MB	32MB	4MB

Table 2. Switch configuration and port density

FS P/N	S5860-24MG-U	S5860-48MG-U	S5860-48XMG-U (S5860-48XMG)	S5860-24XMG
Description	24-Port Ethernet L3 PoE++ Switch, 24 x 5GBASE-T/Multi-Gigabit Ports, with 4 x 25Gb SFP28 Uplinks, Support Stacking, Broadcom Chip	48-Port Ethernet L3 PoE++ Switch, 48 x 5GBASE-T/Multi-Gigabit Ports, 4 x 25Gb SFP28, with 2 x 40Gb QSFP+ Uplinks, Support Stacking, Broadcom Chip	48-Port Ethernet L3 (PoE++) Switch, 48 x 10GBASE-T/Multi-Gigabit Ports, 4 x 25Gb SFP28, with 2 x 40Gb QSFP+ Uplinks, Support Stacking, Broadcom Chip	24-Port Ethernet L3 Switch, 24 x 10GBASE-T/Multi-Gigabit Ports, 4 x 10Gb SFP+, with 4 x 25Gb SFP28 Uplinks, Support Stacking, Broadcom Chip
Port				
2.5/5G port density	24	48	48	24
10G port density	4	4	52	32
25G port density	4	4	4	4
40G port density	-	2	2	-
Management ports	1	1	1	1
Console port	1	1	1	1
USB port	1	1	1	1
Memory and processor				
Switch chip	BCM56170	BCM56170	BCM56170	BCM56170
CPU	ARM A9 Single-Core CPU, 1.25GHz	ARM A9 Quad-Core CPU, 1.2GHz	ARM A9 Single-Core CPU, 1.25GHz	ARM A9 Single-Core CPU, 1.25GHz
DRAM	1GB	2GB	2GB	2GB
SDRAM	1GB	2GB	2GB	2GB
Flash memory	1GB	1GB	1GB	1GB
Latency	1.28μs	1.28μs	1.28μs	1.28μs
Packet buffer	4MB	4MB	4MB	4MB

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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.

SFP28 can be used for 10/25G connection.

QSFP+ can be used for 40G or 4x 10G connection.

QSFP28 can be used for 40G/100G or 4x10G/4x25G connection.

Power supplies and fans

The FS S5860 Series switches ship with the dual 1+1 redundant power supply as default.

Table 3 through 4 provide more details on the FS S5860 series power supplies and fan specifications.

Table 3. Power supply and fan specifications

Description	S5860-20SQ	S5860-48SC	S5860-24XB-U
Power supply	Dual 1+1 redundant power supplies (AC) Dual 1+1 redundant power supplies (DC)	Dual 1+1 redundant power supplies (AC)	Dual 1+1 redundant power supplies (AC)
Fan number	2x Hot-swappable Fans	4x Hot-swappable Fans (3+1 Redundancy)	3x Hot-swappable Fans (2+1 Redundancy)
Airflow	Front-to-Back	Front-to-Back	Front-to-Back and Left-to-Back
Acoustic noise	<78dB	<78dB	<78dB
Maximum fan speed	18000rpm	23500rpm	18000rpm
Max. power consumption	85W	300W	Single Power:120W (380W with PoE) Dual Power: 120W (760W with PoE)
Power max rating	150W	550W	515W
Input-voltage range and frequency	• Rated voltage range: 100-240VAC; 50-60Hz • Maximum voltage range: -AC input: 90-264VAC; 47-63Hz;		
Power supply efficiency	85% (220Vac 50% load)	92% (230Vac 50% load)	90% (230Vac 100% load)
Input current	3A (MAX) at 90V	8A (MAX) at 90V	7A (MAX) at 90V

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Description	S5860-20SQ	S5860-48SC	S5860-24XB-U
Output ratings	Main output: 12V 12.5A	Main output: 12V 45A Standby output: 12V 2.1A	Main output: 12V 11.25A Standby output: 53.5V 7.11A
Output holdup time	20ms	12ms	11ms
Power-supply input receptacles	C13	C13	C13
Power cord rating	10A	10A	10A
PoE standard	-	-	IEEE 802.3af/at/bt
PoE budget	-	-	370W (single-power); 740W (dual-power)

Table 4. Power supply and fan specifications

Description	S5860-24MG-U	S5860-48MG-U	S5860-48XMG-U (S5860-48XMG)	S5860-24XMG
Power supply	Dual 1+1 redundant power supplies (AC)	Dual 1+1 redundant power supplies (AC)	Dual 1+1 redundant power supplies (AC)	Dual 1+1 redundant power supplies (AC)
Fan number	2 Hot-swappable Fans	2+1 Hot-swappable Fans	2+1 Hot-swappable Fans	2+1 Hot-swappable Fans
Airflow	Front-to-Back and Left-to-Back	Front-to-Back and Left-to-Back	Front-to-Back and Left-to-Back	Front-to-Back and Left-to-Back
Acoustic noise	<78dB	<78dB	<78dB	<78dB
Maximum fan speed	18000rpm	18000rpm	18000rpm	18000rpm
Max. power consumption	120W (460W with PoE)	Single Power: 240W (1000W with PoE) Dual Power: 240W (2000W with PoE)	Single Power: 240W (1000W with PoE) Dual Power: 240W (2000W with PoE)	120W
Power max rating	AC input：90-290V，45/65Hz	AC Input: 90-264V, 47/63 Hz	AC Input: 90-264V, 47/63 Hz	AC Input: 90-264V, 47/63 Hz
Input-voltage range and frequency	• Rated voltage range: 100-240VAC; 50-60Hz • Maximum voltage range: -AC input: 90-264VAC; 47-63Hz;			
Power supply efficiency	92% (220Vac 50% load)	92% (220Vac 50% load)	92% (220Vac 50% load)	92% (220Vac 50% load)
Input current	6A (MAX) at 90V	8A (MAX) at 90V	8A (MAX) at 90V	8A (MAX) at 90V

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Description	S5860-24MG-U	S5860-48MG-U	S5860-48XMG-U (S5860-48XMG)	S5860-24XMG
Output ratings	Main output: 56V 8.22A	Main output: 56V 17.36A Standby output: 56V 16.61A	Main output: 56V 17.36A Standby output: 56V 16.61A (Main output: 56V 8.22A Standby output: 56V 16.61A)	Main output: 56V 8.22A Standby output: 56V 16.61A
Output holdup time	20ms	20ms	20ms	20ms
Power-supply input receptacles	C13	C13	C13	C13
Power cord rating	10A	10A	10A	10A
PoE standard	IEEE 802.3af/at/bt	IEEE 802.3af/at/bt	IEEE 802.3af/at/bt (Only for S5860-48XMG-U)	-
PoE power budget	370W (single-power)	1600W (dual-power)	1600W (dual-power) (Only for S5860-48XMG-U)	-

Stacking

The FS S5860 Series switch models are designed for stacking switches as a single virtual switch, enabling customers to have a single management plane and control plane for up to 152 access ports.

Table 5 through 6 list the supported stacking options.

Table 5. Supported stacking options

Part Name	S5860-20SQ	S5860-48SC	S5860-24XB-U
Stacking ports	Port 1~26 (20*10G, 4*25G, 2*40G)	Port 1~56 (48*10G, 8*100G)	Port 1~32 (24*10G-T, 4*10G, 2*40G)
Supported stack members	Stack with other S5860-20SQ or S5860-24XB-U with the same OS version	Stack with other S5860-48SC with the same OS version	Stack with S5860-20SQ or other S5860-24XB-U with the same OS version
Maximum number of VSL links	8	48	8
Number of members	2	2	2

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Table 6. Supported stacking options

Part Name	S5860-24MG-U	S5860-48MG-U	S5860-48XMG-U (S5860-48XMG)	S5860-24XMG
Stacking ports	Port 25~28 (4*25G)	Port 49~54 (4*25G, 2*40G)	Port 1~54 (48*10G, 4*25G, 2*40G)	Port 1~26 (24*10G, 4*10G, 4*25G)
Supported stack members	Stack with other S5860-48MG-U with the same OS version	Stack with other S5860-24MG-U with the same OS version	Stack with S5860-48XMG-U with the same OS version (Only for S5860-48XMG-U) Stack with S5860-24XMG, S5860-48XMG with the same OS version (Only for S5860-48XMG)	Stack with S5860-24XMG, S5860-48XMG with the same OS version
Maximum number of VSL links	4	6	8	8
Number of members	2	2	2	2

Note:

All 10G/25G/40G ports can be stacked via transceivers or DAC/AOC cables, support port mixing but does not support speed reduction in the same VSL. For S5860-20SQ and S5860-24XB-U, when using the 25G ports, you can configure a single port as a stack port; each 25G port is a stack-group. For S5860-48SC, when using the 10G ports, you can configure a single port as a stack port; each 10G port is a stack-group. For S5860-24XMG and S5860-48XMG, when using the 10G RJ45 ports, you can configure a single port as a stack port; each 10G port is a stack-group.

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Switch performance

Table 7 through 8 show performance specifications for the FS S5860 series switches.

Table 7. Performance specifications

Performance for all S5860 Series Switches	S5860-20SQ	S5860-48SC	S5860-24XB-U
Switching capacity	760 Gbps	2.56 Tbps	760 Gbps
Forwarding rate	565 Mpps	1904 Mpps	565 Mpps
Total number of MAC addresses	32000	32000	32000
Total number of IPv4 routes (indirect routes)	16000	16000	16000
Total number of IPv4 host routes (direct routes and ARP)	16000	16000	16000
Total number of IPv6 routes (indirect routes)	4094	14000	4094
Total number of IPv6 host routes (direct routes and NDP)	4000	35000	4000
Total number of IPv4 multicast routes	4000	16000	4000
Total number of IPv6 multicast routes	2000	8000	2000
QoS ACL scale	2500	4500	2500
Security ACL scale	2500	4500	2500
VLAN IDs	4000	4000	4000
STP virtual ports (port* VLANs) for MST	64	64	64
Total switched virtual interfaces (SVIs)	4094	4094	4094
Jumbo frame	9216 bytes	9216 bytes	9216 bytes

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Table 8. Performance specifications

Performance for all S5860 Series Switches	S5860-24MG-U	S5860-48MG-U	S5860-48XMG-U (S5860-48XMG)	S5860-24XMG
Switching capacity	440 Gbps	840 Gbps	1.32 Tbps (for S5860-48XMG-U) 760 Gbps (for S5860-48XMG)	760 Gbps
Forwarding rate	327 Mpps	625 Mpps	982 Mpps (for S5860-48XMG-U) 565 Mpps (for S5860-48XMG)	565 Mpps
Total number of MAC addresses	32000	32000	32000	32000
Total number of IPv4 routes (indirect routes)	16000	16000	16000	16000
Total number of IPv4 host routes (direct routes and ARP)	16000	16000	16000	16000
Total number of IPv6 routes (indirect routes)	1000	1000	1000 (4094)	4094
Total number of IPv6 host routes (direct routes and NDP)	4096	4096	4096 (4000)	4000
Total number of IPv4 multicast routes	4000	4000	4000	4000
Total number of IPv6 multicast routes	2000	2000	2000	2000
QoS ACL scale	2500	2500	2500	2500
Security ACL scale	2500	2500	2500	2500
VLAN IDs	4000	4000	4000	4000
STP virtual ports (port* VLANs) for MST	65	65	65 (64)	64
Total switched virtual interfaces(SVIs)	1000	1000	1000 (4094)	4094
Jumbo frame	9216 bytes	9216 bytes	9216 bytes	9216 bytes

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Platform benefits

Table 9 lists the software spotlights for the FS S5860 series switches.

Table 9. Software spotlights

Functionality	Description
For Wi-Fi 6 wireless APs (Except S5860-20SQ, S5860-48SC, S5860-24XMG and S5860-48XMG switches)	Support 100M/1000M/2.5G/5G/10GBase-T Ethernet adaptive ports All RJ45 ports support IEEE 802.3bt 90W PoE
Virtual stacking for simplified management	Up to 2 units stacking Simplified network management Fault recovery within milliseconds All 10G/25G/40G ports support stacking
Sound security protection policies	Detected by professional vulnerability scanning tool (Nessus) Support hardware-based IPv6 ACLs Support hardware CPU protection mechanism Support DHCP snooping Support the secure shell (SSH) and SNMPv3 Support network foundation protection policy (NFPP)
High reliability	Support the spanning tree protocols (STPs) Support virtual router redundancy protocol (VRRP) Support rapid link detection protocol (RLDP) Support rapid Ethernet uplink protection protocol (REUP) Support bidirectional forwarding detection (BFD) Support Ethernet Ring Protection Switching (ERPS)
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/BGP/VRRP/SNMP/IS-IS/DHCP/NTP of other equipment
Easy network maintenance	Support SNMP (managed by Zabbix), RMON, log and configuration backup Support Syslog, Web-based management, Telnet, SSH, Openflow, Netconf CLI style is similar to Cisco, easy to learn
IPv4/IPv6 dual-stack multi-layer switching	Support line-rate IPv4/IPv6 dual-stack multi-layer switching Support RIP, OSPFv2, IS-ISv4, BGP4, static routing, RIPng, OSPFv3, ISISv6, and BGP4+ Support IPv6 addressing, ICMPv6, path MTU discovery
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
Strong multi-service support capability	Support the IPv4 and IPv6 multicast functions Support IGMP snooping, IGMP, MLD, PIM, MSDP Support IGMP source port and source IP check function
Energy efficiency	Hardware architecture to reduce energy consumption and noise Variable-speed axial fans to intelligently control the fan speed

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Software requirements

The FS S5860 Series Switches run on FS OS Software version.

Table 10 lists the latest software requirements for the switch models.

Table 10. Latest software requirements

FS P/N	Description	Latest software requirements
S5860-20SQ	S5860-20SQ, 24-Port Ethernet L3 Switch, 20 x 10Gb SFP+, with 4 x 25Gb SFP28 and 2 x 40Gb QSFP+, Support Stacking, Broadcom Chip	FSOS 12.6(2)B0101_SP1 Software
S5860-48SC	S5860-48SC, 48-Port Ethernet L3 Switch, 48 x 10Gb SFP+, with 8 x 100Gb QSFP28, Support Stacking, Broadcom Chip	FSOS 11.0_B13S5 Software
S5860-24XB-U	S5860-24XB-U, 24-Port Ethernet L3 PoE++ Switch, 24 x 10GBASE-T/Multi-Gigabit, 4 x 10Gb SFP+, with 4 x 25Gb SFP28, Support Stacking, Broadcom Chip	FSOS 12.6(2)B0101_SP1 Software
S5860-24MG-U	S5860-24MG-U, 24-Port Ethernet L3 PoE++ Switch, 24 x 5GBASE-T/Multi-Gigabit Ports, with 4 x 25Gb SFP28 Uplinks, Support Stacking, Broadcom Chip	-
S5860-48MG-U	S5860-48MG-U, 48-Port Ethernet L3 PoE++ Switch, 48 x 5GBASE-T/Multi-Gigabit Ports, 4 x 25Gb SFP28, with 2 x 40Gb QSFP+ Uplinks, Support Stacking, Broadcom Chip	-
S5860-48XMG-U	S5860-48XMG-U, 48-Port Ethernet L3 PoE++ Switch, 48 x 10GBASE-T/Multi-Gigabit Ports, 4 x 25Gb SFP28, with 2 x 40Gb QSFP+ Uplinks, Support Stacking, Broadcom Chip	-
S5860-24XMG	24-Port Ethernet L3 Switch, 24 x 10GBASE-T/Multi-Gigabit Ports, 4 x 10Gb SFP+, with 4 x 25Gb SFP28 Uplinks, Support Stacking, Broadcom Chip	-
S5860-48XMG	48-Port Ethernet L3 Switch, 48 x 10GBASE-T/Multi-Gigabit Ports, 4 x 25Gb SFP28, with 2 x 40Gb QSFP+ Uplinks, Support Stacking, Broadcom Chip	-

Product specifications

Table 11 through 12 show the product specifications for the FS S5860 series switches.

Table 11. Product specifications

Description	S5860-20SQ	S5860-48SC	S5860-24XB-U
Environmental			
Operating temperature	0 to 50°C (32 to 122°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)
Operating humidity	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)

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Description	S5860-20SQ	S5860-48SC	S5860-24XB-U
Temperature alarm	Supported	Supported	Supported
Acoustic noise	<78dB	<78dB	<78dB
Physical specifications			
Dimensions (HxWxD)	1.72"x17.32"x12.99" (43.6x440x330mm)	1.73"x17.4"x15.24" (44x442x387mm)	1.74"x17.32"x17.81" (44.1x440x452.5mm)
Rack units (RU)	1 RU	1 RU	1 RU
Weight	10.14 lbs (4.6kg)	10.14 lbs (4.6kg)	21.6 lbs (9.8kg)
Distance	-	-	100M
Electrical			
Voltage (auto ranging)	100-240VAC	100-240VAC	100-240VAC
Frequency	50-60Hz	50-60Hz	50-60Hz
Current	3A Max	3.6A Max	3A Max
Power rating (maximum consumption)	85W	550W	515W (single-power); 1030W (dual-power)
Mean-time between failures			
MTBF (hours)	>366000	>300000	>233000
Connectors			
Connectors and cabling	• 1/10GBASE-T ports: RJ45 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) • Ethernet management port: RJ45 connectors, 4-pair Cat5 UTP cabling • Management console port: RJ45-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, 802.1ad, 802.1d, 802.1p, 802.1q, RMON, SNMPV1 V2 V3		

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Table 12. Product specifications

Description	S5860-24MG-U	S5860-48MG-U	S5860-48XMG-U (S5860-48XMG)	S5860-24XMG
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	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	Supported	Supported	Supported	Supported
Acoustic noise	<78dB	<78dB	<78dB	<78dB
Physical specifications				
Dimensions (HxWxD)	1.72''x17.4''x16.5'' (43.6x442x420mm)	1.72''x17.4''x16.5'' (43.6x442x420mm)	1.72''x17.4''x16.5'' (43.6x442x420mm)	1.72''x17.4''x16.5'' (43.6x442x420mm)
Rack units (RU)	1 RU	1 RU	1 RU	1 RU
Weight	8.2 lbs (3.7kg)	17.8 lbs (8.1kg)	17.8 lbs (8.1kg)	17.8 lbs (8.1kg)
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	6A Max	8A Max	8A Max	8A Max
Power rating (maximum consumption)	460W	2000W	2000W (240W)	120W

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Description	S5860-24MG-U	S5860-48MG-U	S5860-48XMG-U (S5860-48XMG)	S5860-24XMG
Mean-time between failures				
MTBF (hours)	>194,297	>236,695	>236,695	>236,695
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) • 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, 802.1ad, 802.1d, 802.1p, 802.1q, RMON, SNMPV1 V2 V3			

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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.

Figure 9 shows some of the authoritative certifications obtained by FS S5860 Series Switches.



Figure 9

Optics supported

For details about the optical modules available, visit:
S5860-20SQ: Transceivers DACs and AOCs Supported on S5860-20SQ Switch
S5860-48SC: Transceivers DACs and AOCs Supported on S5860-48SC Switch
S5860-24XB-U: Transceivers DACs and AOCs Supported on S5860-24XB-U Switch

Warranty, service and support

FS S5860 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.support.html

- 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 13 provides the ordering information for S5860 series switches.

Table 13 Ordering information

FS P/N	Product description
Switch hardware	
S5860-20SQ	S5860-20SQ, 24-Port Ethernet L3 Fully Managed Pro Switch, 20 x 10Gb SFP+, with 4 x 25Gb SFP28 and 2 x 40Gb QSFP+, Support Stacking, Broadcom Chip
S5860-24XB-U	S5860-24XB-U, 24-Port Ethernet L3 Fully Managed Pro PoE++ Switch, 24 x 10GBASE-T/Multi-Gigabit, 4 x 10Gb SFP+, with 4 x 25Gb SFP28, Support Stacking, Broadcom Chip
S5860-48SC	S5860-48SC, 48-Port Ethernet L3 Fully Managed Pro Switch, 48 x 10Gb SFP+, with 8 x 100Gb QSFP28, Support Stacking, Broadcom Chip
S5860-24MG-U	S5860-24MG-U, 24-Port Ethernet L3 PoE++ Switch, 24 x 5GBASE-T/Multi-Gigabit Ports, with 4 x 25Gb SFP28 Uplinks, Support Stacking, Broadcom Chip
S5860-48MG-U	S5860-48MG-U, 48-Port Ethernet L3 PoE++ Switch, 48 x 5GBASE-T/Multi-Gigabit Ports, 4 x 25Gb SFP28, with 2 x 40Gb QSFP+ Uplinks, Support Stacking, Broadcom Chip
S5860-48XMG-U	S5860-48XMG-U, 48-Port Ethernet L3 PoE++ Switch, 48 x 10GBASE-T/Multi-Gigabit Ports, 4 x 25Gb SFP28, with 2 x 40Gb QSFP+ Uplinks, Support Stacking, Broadcom Chip
S5860-24XMG	24-Port Ethernet L3 Switch, 24 x 10GBASE-T/Multi-Gigabit Ports, 4 x 10Gb SFP+, with 4 x 25Gb SFP28 Uplinks, Support Stacking, Broadcom Chip
S5860-48XMG	48-Port Ethernet L3 Switch, 48 x 10GBASE-T/Multi-Gigabit Ports, 4 x 25Gb SFP28, with 2 x 40Gb QSFP+ Uplinks, Support Stacking, Broadcom Chip
Power supplies	
PSM-C150WAC	Hot-swappable AC Power Module 150W, for S5860-20SQ, S5810-48FS Switches
P1D-K0150-B	Hot-swappable DC Power Module 150W, for S5860-20SQ, S5810-48FS
PSM-C515WACP	Hot-swappable AC Power Module 515W, for S5860-24XB-U
Fan Module	
M1SFAN-I-F	Hot-swappable Fan Module, Front-to-Back Airflow through the S5860-20SQ

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Additional information

For more information about the S5860 Series Switches, contact your account manager or visit https://www.fs.com/search_result?keyword=S5860

Document history

New or revised topic	Described in	Date
Updates to FS S5860 Series Switches Data Sheet	Add S5860-24XMG/S5860-48XMG switches information	8/1/2023
Updates to FS S5860 Series Switches Data Sheet	Add S5860-20SQ DC switch information	7/10/2023
Updates to FS S5860 Series Switches Data Sheet	Add S5860-24MG-U/S5860-48MG-U/S5860-48XMG-U switches information	6/14/2023
Updates to FS S5860 Series Switches Data Sheet	FSOS 11.0(5)B13S4 Software of S5860-48SC supports ERPS	11/1/2022
Updates to FS S5860 Series Switches Data Sheet	Updated all	8/15/2022

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