FS S5850 Series Switches Data Sheet

Contents

▌ Product overview

FS S5850 series switches are high performance Ethernet switches to meet next generation Metro, Data Center and Enterprise network requirements, which support L2/L3/IPv6/Data Center/Metro features. The S5850 Series Switches come with complete system software with comprehensive protocols and applications to facilitate rapid service deployment and management for both traditional L2/L3 networks and Data Center networks.

S5850-48T4Q features an advanced hardware design combined with 48x 100/1000M/5G/10GBASE-T ports and 4x 40Gb ports. This 10GBASE-T switch offers backwards compatibility with installed Ethernet cabling and standard RJ-45 connectors. The switch comes with the complete system software with comprehensive protocols and applications to facilitate the rapid service deployment and management for traditional Layer 2 and Layer 3 networks.Offering high-performance, high port density, and low latency, S5850-48T4Q is well suited to both the core and aggregation layers, enabling to meet data centers, carriers and enterprise network requirements.

S5850-48S6Q is a high-performance Layer 3 Leaf switch with 48x 10Gb SFP+ access ports and 6x 40Gb QSFP+ ports in a compact 1U form factor. The switch delivers rich layer 2 and layer 3 features with wire speed performance up to a maximum performance of 1.44 Tbps. Supporting advanced features, including MLAG, VXLAN, IPv4/IPv6, SFLOW, SNMP etc., this switch meets the next generation Metro and enterprise network requirements, and it is also ideal for traditional or fully virtualized data center.

S5850-48S6Q-R is a high-performance Layer 3 Leaf switch with 48x 10Gb SFP+ access ports and 6x 40Gb QSFP+ ports in a compact 1U form factor. The switch delivers rich layer 2 and layer 3 features with wire speed performance up to a maximum performance of 1.44 Tbps.
This switch supports rich features, including redundant hot-swappable power supplies and fans, MLAG, VXLAN, IPv4/IPv6, sFlow, SNMP, etc. to meet the requirements of next-generation Enterprise, Data Center, Metro and HCI (Hyper-Converged Infrastructure) networks.

The S5850-48B8C is a layer 3 switch with wire-speed 48x 10G/25G SFP28 and 8x 40G/100G QSFP28 (breakout to 4x 10G/25G) ports, delivering 4 Tbps switching capacity and 2976 Mpps forwarding rate. It features redundant hot-swappable power supplies, smart fans, and dual-flash chips for enhanced reliability and performance.
With support for MLAG, BGP EVPN VXLAN, PTP v2, MPLS, LACP, and more, the switch meets the scalability, security, and application needs of modern networks. It is ideal for next-generation core, aggregation, and dynamic data center environments, as well as medium to large campus deployments, with the flexibility of enterprise top-of-rack and service provider environments. Ideal for seamless migration from 10GbE to 25GbE or from 10GbE/40GbE uplinks to 100GbE.

The S5850-48S8C 48-port 10Gb Ethernet layer 3 switch features 48x 10G downlinks and 8x 40G/100G QSFP28 (can be spilt into 4x 10G/25G) uplinks. This managed enterprise switch can deliver 2.56 Tbps switching capacity and 1905 Mpps forwarding rate. It is packed with redundant hot-swappable power supplies, hot-swappable smart fans and hardware-level dual-flash chip for superior processing performance and network reliability. FS agile S5850-48S8C managed switch is ideal for large-scale campus network aggregations, small and medium-sized network cores, and can be used in scenarios that require high-speed transmission and long-distance connectivity, such as data centers, remote offices and WAN extensions.

S5850-48XMG8C is a high-performance switch featuring 48x 100M/1G/2.5G/5G/10GBASE-T ports and 8x 100G QSFP28 uplinks (split to 4x 10/25G), providing 2.56 Tbps switching capacity and 1904 Mpps forwarding rate. It is equipped with 1+1 redundant hot-swappable power supplies and 4 hot-swappable smart fans ensuring high availability and optimal cooling.
Supporting MACsec encryption, EVPN-VXLAN, MLAG, PTP v2, LACP, and more, this switch is engineered to deliver secure, scalable, and resilient networking solutions. It is ideal for medium to large campus distribution/access, small campus/branch office core, and data center ToR/EoR deployments.

S5850-24S2Q layer 3 switch features 24x 1Gb/10Gb and 2x 40Gb QSFP+ ports, providing the flexibility to support mixed 1Gb, 10Gb and 40Gb environments. This managed enterprise switch delivers 640 Gbps switching capacity with rich layer 2 and layer 3 features. Delivering wire-speed performance on every port, full device redundancy, support L3 routing protocols such as RIP, OSPF, BGP, a comprehensive security and QoS feature set, the S5850-24S2Q is ideal for large-scale campus network aggregations, small and medium-sized network cores.

S5850-24S2C is a high-performance Layer 3 Ethernet switch with 24x 1/10Gb SFP+ and 2x 40/100Gb QSFP28 ports in a compact 1U form factor. The switch comes with complete system software, comprehensive protocols and applications to facilitate the rapid service deployment and management for traditional Layer 2 and Layer 3 networks. It is ideally designed for demanding workloads. Supporting advanced features, including MLAG, EVPN, SR-MPLS, VXLAN, IPv4/IPv6, sFlow, SNMP etc., this switch meets the next generation Metro and enterprise network requirements, and it is also ideal for traditional or fully virtualized data center.

S5850-24T16B is a high-performance Layer 3 Ethernet routing switch with 24x 10/100/1000BASE-T RJ45 and 16x 10Gb SFP+/25Gb SFP28 ports in a compact 1U form factor. Based on FSOS system software, it supports full L3 routing protocol (OSPF, BGP, and ISIS), multiple IPv4/IPv6 tunnel technique, data center DCB features (PFC/ECN/ETS) and MLAG etc. With its diverse set of deployment options, including fabric, Layer 3, as well as spine and leaf, the switch is ideal for next generation enterprise, data center, Metro and HCI (Hyper-Converged Infrastructure) networks.

S5850-24XMG features 24x 10/100/1000M/2.5G/5G/10GBASE-T ports and 2x 100Gb ports. This 10GBASE-T switch offers backwards compatibility with installed Ethernet cabling and standard RJ-45 connectors. The switch comes with the complete system software with comprehensive protocols and applications to facilitate the rapid service deployment and management for traditional Layer 2 and Layer 3 networks. Offering high performance, high port density, and low latency, S5850-24XMG is well-suited to both the core and aggregation layers, enabling to meet requirements of next generation enterprise, Wi-Fi 6 Access, Metro and HCI (Hyper-Converged Infrastructure) networks.

S5850-24XMG-U is equipped with 24x 10/100/1000M/2.5G/5G/10GBASE-T ports and 2x 100Gb ports. This switch support both IEEE 802.3af/at/bt (up to 90W per port) for powering attached IP phones, wireless access points, or other standards-compliant PoE, PoE+, and PoE++ end network devices. In addition, the 2x 100G QSFP28 ports, can provide high-speed uplink and server/storage/high-performance workstation connectivity. Offering high performance, high port density, and low latency, S5850-24XMG-U is well-suited to both the core and aggregation layers, enabling it to meet the requirements of the next-generation enterprise, Wi-Fi 6 Access, Metro, and HCI (Hyper-Converged Infrastructure) networks.

S5850-24B4C 24-port 10Gb Ethernet layer 3 switch features 24x 25G downlinks and 4x 100G QSFP28 uplinks. This managed enterprise switch can deliver 4 Tbps switching capacity and 2976 Mpps forwarding rate. It is packed with redundant hot-swappable power supplies, hot-swappable smart fans and hardware-level dual-flash chip for superior processing performance and network reliability.

FS agile S5850-24B4C managed switch is ideal for enterprise network private cloud TOR, date center TOR, operator PE to meet the needs of high-speed, safe, intelligent networks.

S5850-16T16BS2Q is a high-performance Layer 3 Ethernet routing switch with 16x 10/100/1000BASE-T RJ45, 8x 10Gb SFP+, 8x 25Gb SFP28 ports and 2x 40Gb QSFP+ in a compact 1U form factor. It delivers 752 Gbps switching capacity and 540 Mpps forwarding rate. It is packed with redundant hot-swappable power supplies and variable-speed axial fans for superior processing performance.

With its diverse set of deployment options, including fabric, Layer 3, as well as spine and leaf, the switch is ideal for next-generation enterprise, data center, Metro, and HCI (Hyper-Converged Infrastructure) networks.

▌ Product highlights

- Support MLAG (Multi-Chassis Link Aggregation) for Uninterrupted Service

- 1+1 Hot-swappable Power Supplies

- Network Monitoring through Sampled Flow (sFlow)

- Support CLI / WEB / SNMP / OVSDB / RPC-API for Flexible Operation

- Support SSH, ACL, AAA, 802.1X, RADIUS, TACACS+, etc. for Security

- Support IPv4/IPv6 Dual-stack for Future Network Expansion

- Support RIPng/OSPFv3/BGP4+/DHCPv6/IS-IS for Efficient Calculation

- Support QoS, BGP, ACL, VRRP, DHCP, etc.

- Support OSPF/OSPFv3, BGP4/BGP4+, ISIS, BFD

- Support VXLAN, NVGRE for Knowledge Sharing and Community-based Problem Solving

- Support G.8031, G.8032, Ethernet OAM, MPLS, VPLS, VPWS, L3VPN (Except for S5850-24S2Q / S5850-24XMG/S5850-48XMG8C)

- Support Data Center Features (PFC, ECN etc.) to Build a Lossless and Low-latency Network (Only for S5850-48T4Q / S5850-48T4Q-PE / S5850-48S6Q / S5850-48S6Q-R / S5850-24T16B/ S5850-24B4C)

- Support IEEE 1588v2 Precision Time Protocol TC Mode (Only for S5850-24S2C-PE / S5850-24S2C / S5850-24S2C-DC / S5850-16T16BS2Q)

- SupportIEEE 1588v2 Precision Time Protocol TC and BC Mode (Only for S5850-48B8C-PE / S5850-48S6Q-R-PE / S5850-48S8C-PE / S5850-48S6Q-R / S5850-48S8C-DC /S5850-24B4C / S5850-48B8C / S5850-48S8C / S5850-48XMG8C)

Platform details

Switch models and configurations

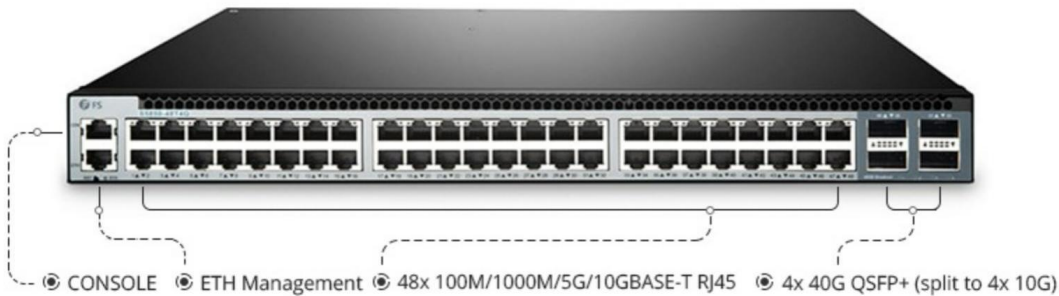Figures 1 through 13 show the FS S5850 series switches.

Figure 1.

S5850-48T4Q, 48-Port Ethernet L3 Switch, 48 x 10GBASE-T, with 4 x 40Gb QSFP+, Support MLAG

Figure 2.

S5850-48S6Q, 48-Port Ethernet L3 Switch, 48 x 10Gb SFP+, with 6 x 40Gb QSFP+, Support MLAG

Figure 3.

S5850-48S6Q, 48-Port Ethernet L3 Switch, 48 x 10Gb SFP+, with 6 x 40Gb QSFP+, Support MLAG

24x 25G SFP28   8x 100G QSFP28   24x 25G SFP28
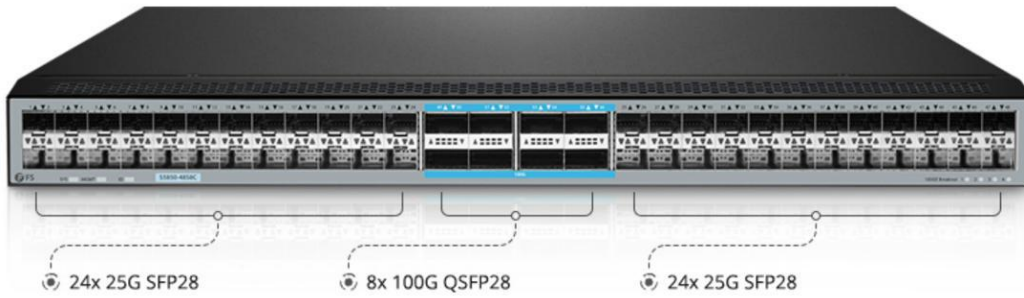
Figure 4.

S5850-48B8C, 48-Port Ethernet L3 Switch, 48 x 25Gb SFP28, with 8 x 100Gb QSFP28, Support MLAG

24x 10G SFP+   8x 100G QSFP28   24x 10G SFP+

Figure 5.

S5850-48S8C, 48-Port Ethernet L3 Switch, 48 x 10Gb SFP+, with 8 x 100Gb QSFP28, Support MLAG

❶ 48x 100M/1G/2.5G/5G/10G BASE-T   ❷ 8x 40G/100G QSFP28

Figure 6.

S5850-48XMG8C, 48-Port Ethernet L3 Switch, 48 x 10GBASE-T/Multi-Gigabit, with 8 x 100Gb QSFP28, Support MLAG
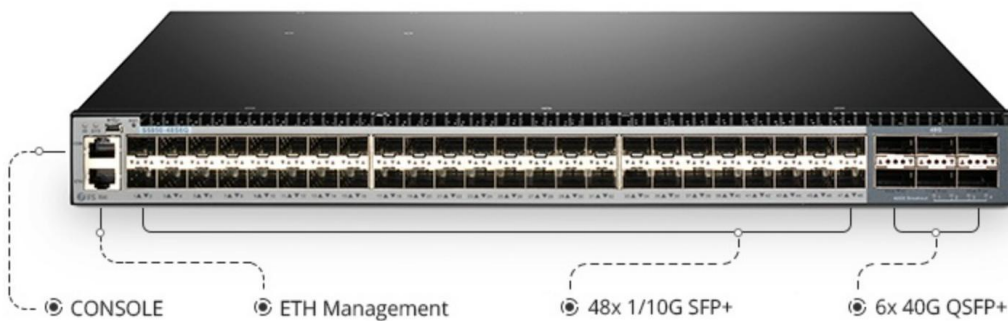
Figure 7.

S5850-24S2Q, 24-Port Ethernet L3 Switch, 24 x 10Gb SFP+, with 2 x 40Gb QSFP+, Support MLAG
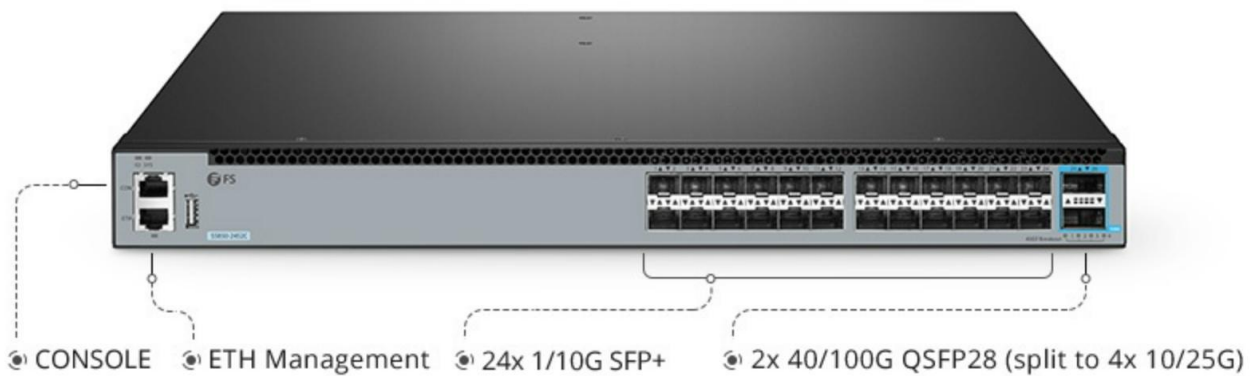
Figure 8.

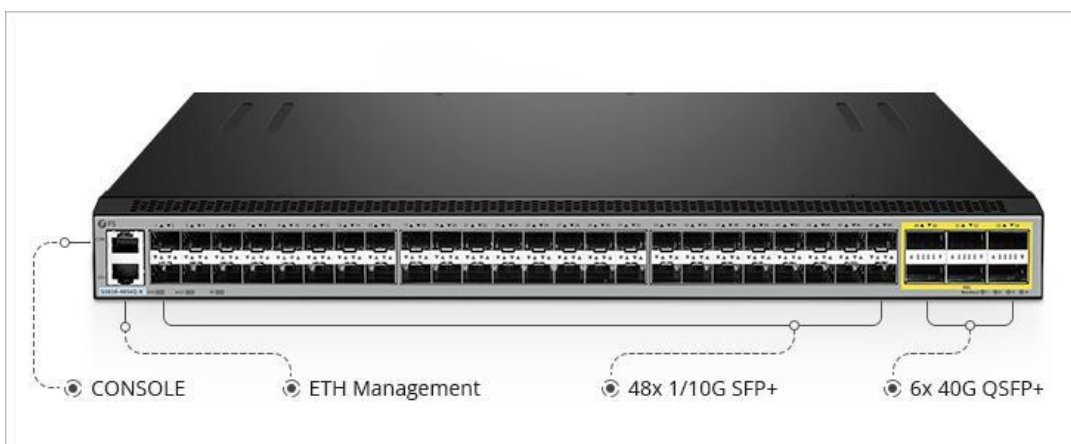S5850-24S2C, 24-Port Ethernet L3 Switch, 24 x 10Gb SFP+, with 2 x 40Gb QSFP+, Support MLAG

Figure 9.

S5850-24T16B, 16-Port Ethernet L3 Switch, 16 x 25Gb SFP28, with 24 x Gigabit RJ45, Hyper-Converged Infrastructure
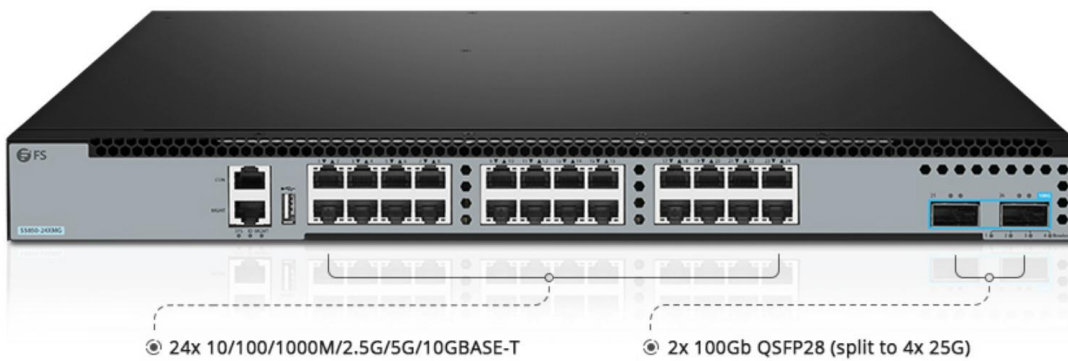
Figure 10.

S5850-24XMG, 24-Port Ethernet L3 Switch, 24 x 10GBASE-T/Multi-Gigabit, with 2 x 100Gb QSFP28, Support MLAG
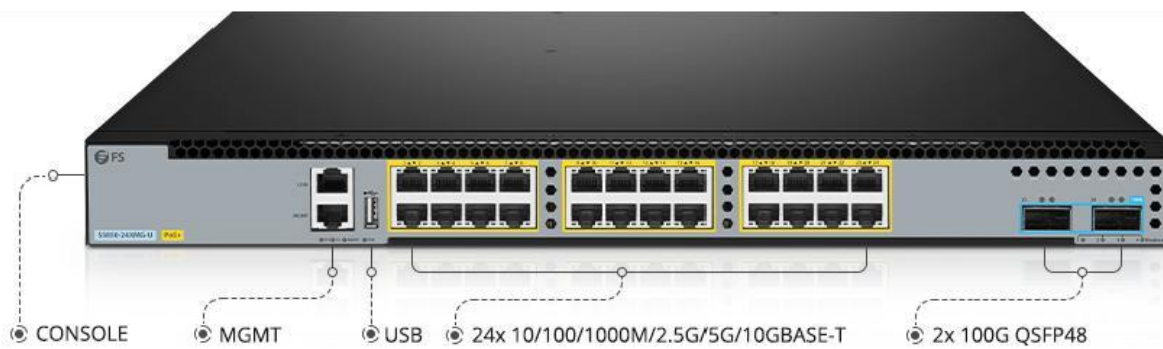
Figure 11.

S5850-24XMG-U, 24-Port Ethernet L3 PoE++ Switch, 24 x PoE++ Ports @1000W, with 2 x 100Gb QSFP28, Support MLAG
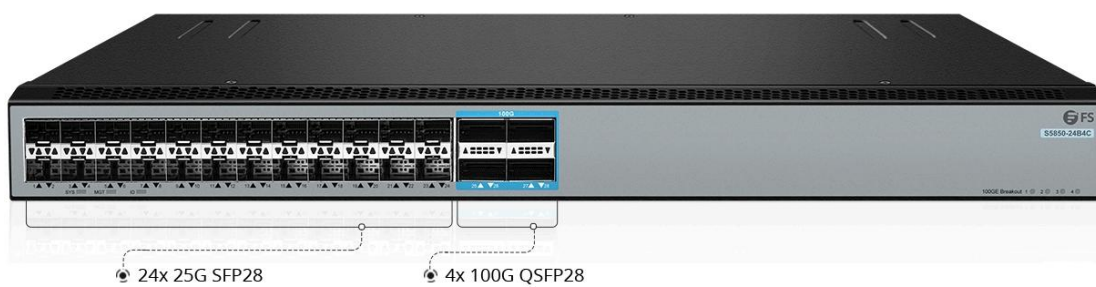
Figure 12.

S5850-24B4C, 24-Port Ethernet L3 Switch, 24 x 25GbSFP28, with 4 x 100Gb QSFP28,Support MLAG
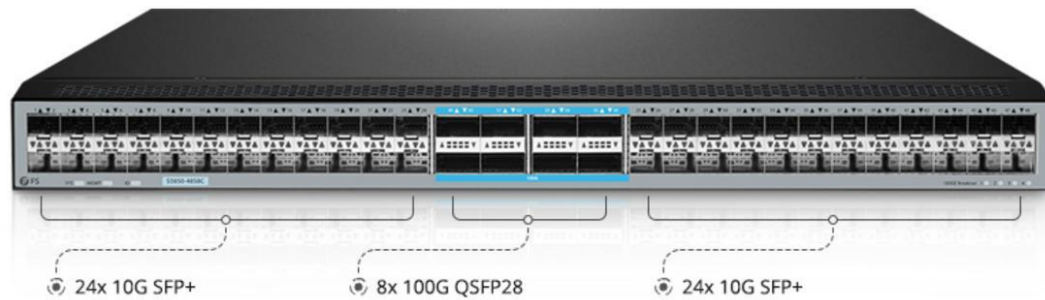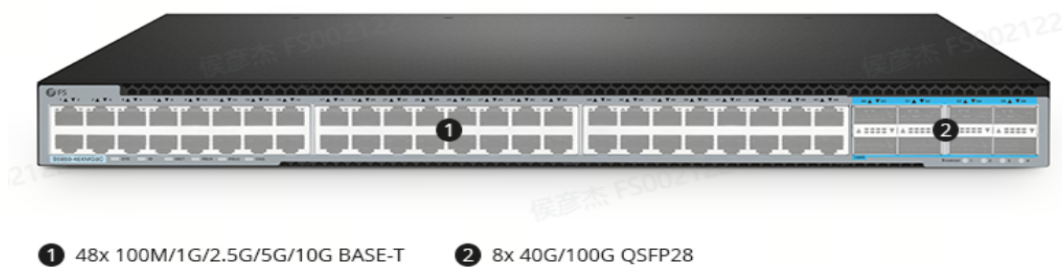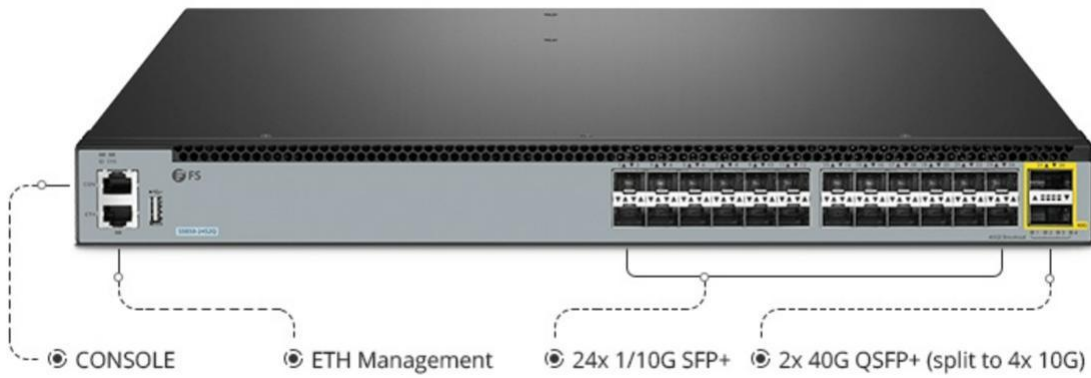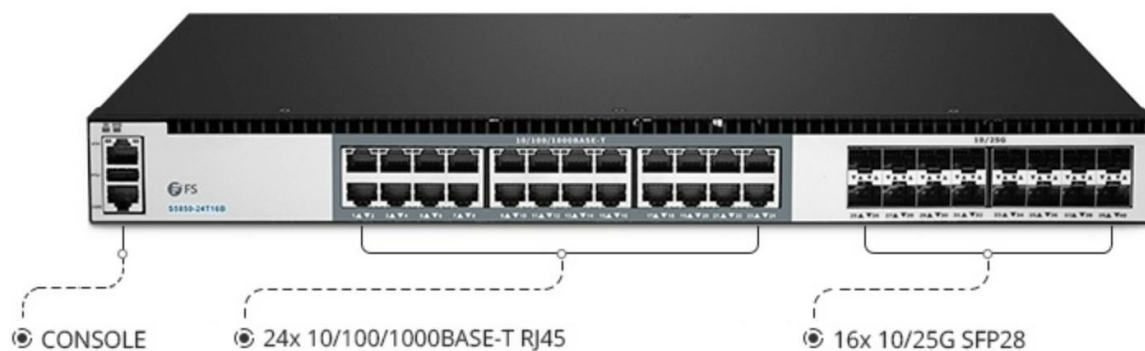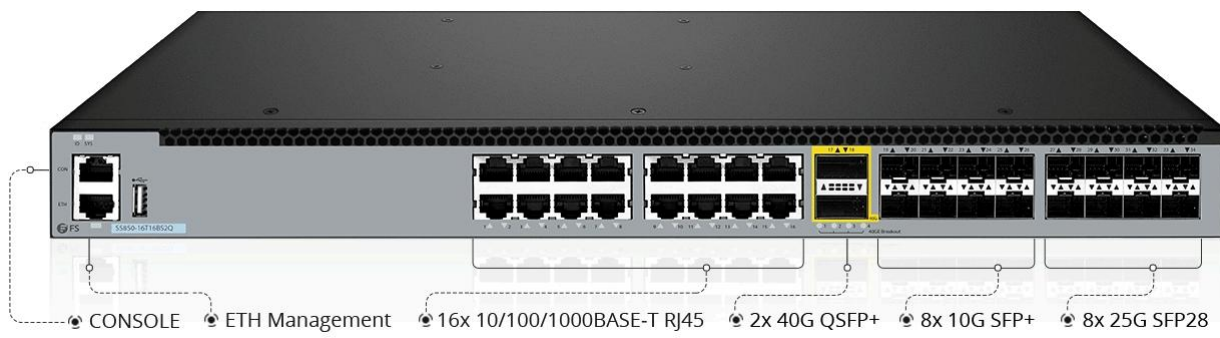
Figure 13.

S5850-16T16BS2Q, 16-Port Gigabit Ethernet L3 Switch, 16 x Gigabit RJ45, with 8 x 10Gb SFP+, 8 x 25Gb SFP28 and 2 x 40Gb QSFP+, Support MLAG

Switch configurations and port density

Table 1 through 5 shows the FS S5850 series configurations and port density.

Table 1.   Switch configuration and port density with 48 ports

FS P/N	S5850-48T4Q	S5850-48S6Q	S5850-48S6Q-R
Description	48-Port Ethernet L3 Switch, 48 x 10GBASE-T, with 4 x 40Gb QSFP+	48-Port Ethernet L3 Switch, 48 x 10Gb SFP+, with 6 x 40Gb QSFP+	48-Port Ethernet L3 Switch, 48 x 10Gb SFP+, with 6 x 40Gb QSFP+
Port			
1G port density	48	48	-
10G port density	48	48	48
25G port density	-	-	-
40G port density	4	6	6
100G port density	-	-	-
10G port density with breakout cable	16	-	24
25G port density with breakout cable	-	-	-
40G port density with breakout cable	-	-	-
Management ports	1	1	1
Console port	1	1	1
USB port	-	1	-
Memory and processor			
CPU	Freescale PowerPC P1010 533MHz	Freescale PowerPC P1010	Dual core/ARM A53
DRAM	1GB	1GB	-
SDRAM	1GB	1GB	2GB
Flash memory	2GB	2GB	8GB
Latency	0.67μs	0.6μs	0.7μs
Packet buffer	9MB	9MB	36MB

Table 2.   Switch configuration and port density with 48 ports

FS P/N	S5850-48B8C	S5850-48S8C	S5850-48XMG8C
Description	48-Port Ethernet L3 Switch, 48 x 25Gb SFP28, with 8 x 100Gb QSFP28	48-Port Ethernet L3 Switch, 48 x 10Gb SFP+, with 8 x 100Gb QSFP28	48-Port Ethernet L3 Switch, 48 x 10GBASE-T/Multi-Gigabit, with 8 x 100Gb QSFP28
Port			
1G port density	-	48	48
10G port density	48	48	48
25G port density	48	-	-
40G port density	-	-	-
100G port density	8	8	8
10G port density with breakout cable	32	32	32
25G port density with breakout cable	32	32	32
40G port density with breakout cable	8	8	8
Management ports	1	1	1
Console port	1	1	1
USB port	-	1	1
Memory and processor			
CPU	Dual core/ARM A53	Dual core/ARM A53	Dual core/ARM A53
DRAM	2GB	2GB	2GB
SDRAM	2GB	2GB	-
Flash memory	8GB	8GB	8GB (eMMC)
Latency	0.7μs	0.7μs	-
Packet buffer	36MB	36MB	36MB

Table 3.   Switch configuration and port density with 24 ports

FS P/N	S5850-24S2Q	S5850-24S2C	S5850-24T16B
Description	24-Port Ethernet L3 Switch, 24 x 10Gb SFP+, with 2 x 40Gb QSFP+	24-Port Ethernet L3 Switch, 24 x 10Gb SFP+, with 2 x 100Gb QSFP28	16-Port Ethernet L3 Switch, 16 x 25Gb SFP28, with 24 x 1G RJ45
Port			
1G port density	24	24	24
10G port density	24	24	-
25G port density	-	-	16
40G port density	2	2	-
100G port density	-	2	-
10G port density with breakout cable	8	8	-
25G port density with breakout cable	-	8	-
40G port density with breakout cable	2	2	-
Management ports	1	1	1
Console port	1	1	1
USB port	1	1	1
Memory and processor			
CPU	SOC (Dual core/ARM A53)	SOC (Dual core/ARM A53)	NXP LS1023A (A53 CPU/Dual core)
DRAM	1GB	2GB	1GB
SDRAM	1GB	2GB	1GB
Flash memory	8GB (eMMC)	8GB	4GB (eMMC)
Latency	0.66µs	0.66µs	0.57µs
Packet buffer	9MB	9MB	4MB

Table 4.   Switch configuration and port density with 24 ports

FS P/N	S5850-24XMG	S5850-24XMG-U	S5850-24B4C
Description	24-Port Ethernet L3 Switch, 24 x 10GBASE-T, with 2 x 100Gb QSFP28	24-Port Ethernet L3 PoE++ Switch, 24 x PoE++ Ports @1000W, with 2 x 100Gb QSFP28	24-Port Ethernet L3 Switch, 24 x 25Gb SFP28, with 4x 100Gb QSFP28
Port			
1G port density	24	24	-
10G port density	24	24	-
25G port density	-	-	24
40G port density	-	-	-
100G port density	2	2	4
10G port density with breakout cable	8	8	16
25G port density with breakout cable	8	8	16
40G port density with breakout cable	2	2	4
Management ports	1	1	1
Console port	1	1	1
USB port	1	1	1
Memory and processor			
CPU	ARM A53 CPU	ARM A53 CPU	ARM A53 CPU
DRAM	2GB	2GB	2GB
SDRAM	2GB	2GB	-
Flash memory	8GB (eMMC)	8GB EMMC(OS) 4MB SPI Flash(Boot)	8GB
Latency	0.66μs	0.66μs	0.7μs
Packet buffer	9MB	9MB	36MB

Table 5.   Switch configuration and port density with 16 ports

FS P/N	S5850-16T16BS2Q
Description	16-Port Gigabit Ethernet L3 Switch, 16 x Gigabit RJ45, with 8 x 10Gb SFP+, 8 x 25Gb SFP28 and 2 x 40Gb QSFP+
Port	
1G port density	16
10G port density	8
25G port density	8
40G port density	2
100G port density	-
10G port density with breakout cable	-
25G port density with breakout cable	-
40G port density with breakout cable	-
Management ports	1
Console port	1
USB port	1
Memory and processor	
CPU	ARM A53 CPU
DRAM	2GB
SDRAM	-
Flash memory	8GB
Latency	0.66µs
Packet buffer	36MB

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

Table 6 through 10 provide more details on the FS S5850 series power supplies and fan specifications.

Table 6. Power supply and fan specifications with 48 ports

Description	S5850-48T4Q	S5850-48S6Q	S5850-48S6Q-R
Power supply	Dual 1+1 redundant power supplies (AC)	Dual 1+1 redundant power supplies (AC)	Dual 1+1 redundant power supplies (AC)
Fan number	2x Hot-swappable Fan Modules (2 Fans Per Module)	4x Hot-swappable Fans (3+1 Redundancy)	4x Hot-swappable Fans (3+1 Redundancy)
Airflow	Front-to-Back; Back-to-Front (S5850-48T4Q-PE)	Front-to-Back	Front-to-Back; Back-to-Front (S5850-48S6Q-R-PE)
Acoustic noise	<77dB	52.4dB	41.7dB
Maximum fan speed	15000rpm	15000rpm	19500rpm
Max. power consumption	250W	190W	145W
Power max rating	550W (single-power); 1100W (dual-power)	190W (single-power); 380W (dual-power)	145W (single-power); 290W (dual-power)
Input-voltage range and frequency	• Rated voltage range: 100-240VAC; 50-60Hz • Maximum voltage range: -AC input: 90-264VAC; 47-63Hz; -High-Voltage DC input: 180 V DC to 300 V DC • DC Input (S5850-48S8C-DC): -36V DC~-72V DC		
Power supply efficiency	94% (230Vac 50% Load)	92% (220Vac 50% load)	AC Input ≥95% (50% load) HVDC Input ≥95% (50% load) DC Input ≥85% (50% load)
Input current	7.5A (MAX) at 100Vac	6A (MAX) at 100Vac -127Vac	AC Input 7A(MAX) at 100Vac -127Vac HVDC Input 3.5A (MAX) at 240Vdc DC Input 20A (MAX) at -36VDC
Output ratings	550W	Main output: +12V Standby: +5V	Main output: +12V Standby: +12V
Output holdup time	11ms	Main output: >12ms Standby output: 70ms	AC and HVDC Input Main output: >11ms Standby output: 70ms DC Input Main output: >4ms Standby output: 70ms
Power-supply input receptacles	C13	C13	C13
Power cord rating	10A	10A	10A

Table 7.   Power supply and fan specifications with 48 ports

Description	S5850-48B8C	S5850-48S8C	S5850-48XMG8C
Power supply	Dual 1+1 redundant power supplies (AC)	Dual 1+1 redundant power supplies (AC) 1+1 DC power supplies for S5850-48S8C-DC	Dual 1+1 redundant power supplies (AC)
Fan number	4x Hot-swappable Fans (2+2 Redundancy)	4x Hot-swappable Fans (2+2 Redundancy)	4x Hot-swappable Fans (4 Fans Per Module)
Airflow	Front-to-Back; Back-to-Front (S5850-48B8C-PE)	Front-to-Back ; Back-to-Front (S5850-48S8C-PE)	Front-to-Back; Back-to-Front
Acoustic noise	60.8dB	60.8dB (AC) 60.4dB (DC)	-
Maximum fan speed	19500rpm	19500rpm	-
Max. power consumption	160W	160W	260W
Power max rating	125W	125W	550W
Input-voltage range and frequency	• Rated voltage range: 100-240VAC; 50-60Hz • Maximum voltage range: -AC input: 90-264VAC; 47-63Hz; -High-Voltage DC input: 180 V DC to 300 V DC • DC Input (S5850-48S8C-DC): -36V DC~-72V DC		Rated voltage range:100-240VAC; 50-60Hz
Power supply efficiency	95% (220Vac 50% Load)	95% (220Vac 50% load); 85% (220Vac 50% load) for S5850-48S8C-DC	-
Input current	7A (MAX) at 100Vac -127Vac	7A (MAX) at 100Vac -127Vac; 20A (MAX) at -36VDC (S5850-48S8C-DC)	7A (MAX)
Output ratings	Main output: +12V Standby: +12V	Main output: +12V Standby: +12V	Main output: +12V Standby: +12V
Output holdup time	Main output: >11ms Standby output: 70ms	AC and HVDC Input Main output: >11ms Standby output: 70ms DC Input(S5850-48S8C-DC) Main output: >4ms Standby output: 70ms	-
Power-supply input receptacles	C13	C13	C13
Power cord rating	10A	10A	10A

Table 8.   Power supply and fan specifications with 24 ports

Description	S5850-24S2Q	S5850-24S2C	S5850-24T16B
Power supply	1+1 redundant power supplies (AC) 1+1 DC power supplies for S5850-24S2Q-DC	1+1 redundant power supplies (AC) 1+1 DC power supplies for S5850-24S2C-DC	Dual 1+1 redundant power supplies (AC)
Fan number	3x Hot-swappableFans (2+1 Redundancy)	3x Hot-swappable Fans (2+1 Redundancy)	2x Hot-swappable Fan Modules (2 Fans Per Module)
Airflow	Front-to-Back; Back-to-Front (S5850-24S2Q-PE)	Front-to-Back; Back-to-Front (S5850-24S2C-PE)	Front-to-Back
Acoustic noise	52.6dB	52.6dB	63.9dB
Maximum fan speed	10000rpm	10000rpm	9000rpm
Max. power consumption	59W	59W	70W
Power max rating	44W	44W	44W
Input-voltage range and frequency	• Rated voltage range:100-240VAC; 50-60HzM • Maximum voltage range: -AC input: 90-264VAC; 47-63Hz; -High-Voltage DC input: 190 V DC to 290 V DC • DC Input (S5850-24S2Q-DC & S5850-24S2C-DC): -36V DC~-72V DC		
Power supply efficiency	84% (220Vac 50%load)	84% (220Vac 50%load)	89% (220Vac 50%load)
Input current	2A (MAX) at 100Vac;6A(MAX) at-36VDC (S5850-24S2Q-DC)	2A (MAX) at 100Vac;6A (MAX) at -36VDC (S5850-24S2C-DC)	3A (MAX) at 90-136Vac
Output ratings	Main output: +12V Standby: +12V	Main output: +12V Standby: +12V	Main output: +12V Standby: +12V
Output holdup time	AC and HVDC Input Main output: >12ms Standby output: 20ms DC Input(S5850-24S2Q-DC Main output: >3ms Standby output: 20ms	-	20ms
Power-supply input receptacles	C13	C13	C13
Power cord rating	10A	10A	10A

Table 9.   Power supply and fan specifications with 24 ports

Description	S5850-24XMG	S5850-24XMG-U	S5850-24B4C
Power supply	Dual 1+1 redundant power supplies (AC)	Dual 1+1redundant power supplies (AC)	Dual 1+1 redundant power supplies (AC)
Fan number	2x Hot-swappable Fan Modules (2 Fans Per Module)	4 (2+2Redundancy) Hot-swappable	4 (2+2 Redundancy) Hot-swappable
Airflow	Front-to-Back	Front-to-Back	Front-to-Back
Acoustic noise	<64dB	<66dB	61.2dB
Maximum fan speed	9000rpm	9000rpm	19500rpm
Max. power consumption	110W	Single Power: 110W (600W with PoE) Dual Power: 110W (1200W with PoE)	130W
Power max rating	100W	100W	-
Input-voltage range and frequency	• Rated voltage range:100-240VAC; 50-60HzM • Maximum voltage range: -AC input: 90-264VAC; 47-63Hz; -High-Voltage DC input: 190 V DC to 290 V DC • DC Input (S5850-24S2Q-DC & S5850-24S2C-DC): -36V DC~-72V DC		
Power supply efficiency	92% (230Vac 50%load)	94% (230Vac 50%load)	95% (220Vac 50% load)
Input current	5.5A (MAX) at 90Vac	8.5A (MAX) at 90Vac	7A (MAX) at 100Vac –127Vac
Output ratings	350W	600W	Main output: +12V Standby: +12V
Output holdup time	11ms	16ms	Main output: >11ms Standby output: 70ms
Power-supply input receptacles	C13	C13	C13
Power cord rating	10A	10A	10A
PoE standard	-	IEEE 802.3af/at/bt	-
PoE budget	-	1000W	-

Table 10.   Power supply and fan specifications with 16 ports

Description	S5850-16T16BS2Q
Power supply	Dual 1+1 redundant power supplies (AC)
Fan number	3 Smart Fans
Airflow	Front-to-Back
Acoustic noise	77dB
Maximum fan speed	9000rpm
Max. power consumption	55W
Power max rating	55W
Input-voltage range and frequency	Rated voltage range:100-240VAC; 50-60Hz
Power supply efficiency	84% (50% load)
Input current	2A
Output ratings	12V
Output holdup time	12ms
Power-supply input receptacles	C13
Power cord rating	10A
PoE standard	-
PoE budget	-

Switch performance

Table 11 through 15 show performance specifications for the FS S5850 series switches.

Table 11.   Performance specifications with 48 ports

FS P/N	S5850-48T4Q	S5850-48S6Q	S5850-48S6Q-R
Switching capacity	1.28Tbps	1.44Tbps	1.44Tbps
Forwarding rate	952.3Mpps	1071.4Mpps	1071.4Mpps
Total number of MAC addresses	65K	64K	120K
Total number of IPv4 routes (indirect routes)	32768	8192	60K

FS P/N	S5850-48T4Q	S5850-48S6Q	S5850-48S6Q-R
Total number of IPv4 host routes (direct routes and ARP)	20480	4096	60k
Total number of IPv6 routes (indirect routes)	1536	1536 (IPv6 profile)	4096
Total number of IPv6 host routes (direct routes and NDP)	4096	4096 (IPv6 profile)	4096
Total number of IPv4 multicast routes	1024	1536	2048
Total number of IPv6 multicast routes	512	1536 (IPv6 profile)	256
QoS ACL scale	1959	1959	-
Security ACL scale	2103	IPv4: 1927 (ingress port), 256 (ingress VLAN), 176 (egress port), 32 (egress VLAN) IPv6: 1903 (ingress port), 256 (ingress VLAN), 152 (egress port), 32 (egress VLAN)	IPv4: 5949 (ingress), 3949 (egress) IPv6: 5949 (ingress), 3949 (egress)
VLAN IDs	4096	4096	4096
STP virtual ports (port* VLANs) for MST	52	64	64
Total switched virtual interfaces (SVIs)	128	256	256
Jumbo frame	9.6K	9.6K	9.6K

Table 12.   Performance specifications with 48 ports

FS P/N	S5850-48B8C	S5850-48S8C	S5850-48XMG8C
Switching capacity	4Tbps	2.56Tbps	2.56Tbps
Forwarding rate	2976Mpps	1905Mpps	1904 Mpps
Total number of MAC addresses	120K	120K	122880
Total number of IPv4 routes (indirect routes)	56K	56K	60K
Total number of IPv4 host routes (direct routes and ARP)	16,384	16,384	16,384
Total number of IPv6 routes (indirect routes)	4096	4096	4096
Total number of IPv6 host routes (direct routes and NDP)	2048	2048	2048
Total number of IPv4 multicast routes	1024	1024	2048

FS P/N	S5850-48B8C	S5850-48S8C	S5850-48XMG8C
Total number of IPv6 multicast routes	512	512	512
QoS ACL scale	6126	6126	-
Security ACL scale	IPv4: 5949 (ingress), 3949 (egress) IPv6: 5949 (ingress), 3949 (egress)	IPv4: 5949 (ingress), 3949 (egress) IPv6: 5949 (ingress), 3949 (egress)	IPv4: 5949 (ingress), 1901(egress) IPv6: 5949 (ingress), 1901(egress)
VLAN IDs	4094	4094	4094
STP virtual ports (port* VLANs) for MST	64	64	64
Total switched virtual interfaces (SVIs)	256	256	-
Jumbo frame	9600	9600	9600

Table 13. Performance specifications with 24 ports

FS P/N	S5850-24S2Q	S5850-24S2C	S5850-24T16B
Switching capacity	640Gbps	880Gbps	848Gbps
Forwarding rate	480Mpps	540Mpps	630.9Mpps
Total number of MAC addresses	96K	96K	64K
Total number of IPv4 routes (indirect routes)	56K	56K	24576
Total number of IPv4 host routes (direct routes and ARP)	12288	12288	3072
Total number of IPv6 routes (indirect routes)	4K	4096	1536 (IPv6 profile)
Total number of IPv6 host routes (direct routes and NDP)	2048	2048	2048 (IPv6 profile)
Total number of IPv4 multicast routes	2048	2048	1536
Total number of IPv6 multicast routes	256	256	512 (IPv6 profile)
QoS ACL scale	1532	1532	1276
Security ACL scale	IPv4: 1488 (ingress), 464 (egress) IPv6: 744 (ingress), 232 (egress)	IPv4: 1488 (ingress), 464 (egress) IPv6: 744 (ingress), 232 (egress)	IPv4: 1208 (ingress), 464 (egress) IPv6: 604 (ingress), 203 (egress)
VLAN IDs	4094	4094	4094

FS P/N	S5850-24S2Q	S5850-24S2C	S5850-24T16B
STP virtual ports (port* VLANs) for MST	64	64	64
Total switched virtual interfaces (SVIs)	256	256	256
Jumbo frame	9600	9600	9600

Table 14.   Performance specifications with 24 ports

FS P/N	S5850-24XMG	S5850-24XMG-U	S5850-24B4C
Switching capacity	848Gbps	880Gbps	2Tbps
Forwarding rate	654Mpps	654Mpps	1488Mpps
Total number of MAC addresses	98K	98K	120K
Total number of IPv4 routes (indirect routes)	57344	57344	60K
Total number of IPv4 host routes (direct routes and ARP)	12288	12288	16384
Total number of IPv6 routes (indirect routes)	4096	4096	4096
Total number of IPv6 host routes (direct routes and NDP)	2048	2048	2048
Total number of IPv4 multicast routes	1024	1024	2048
Total number of IPv6 multicast routes	512	512	256
QoS ACL scale	1532	1532	6126
Security ACL scale	1952	1952	IPv4: 5949 (ingress), 1901 (egress) IPv6: 5949 (ingress), 1901 (egress)
VLAN IDs	4094	4094	4094
STP virtual ports (port* VLANs) for MST	52	52	64
Total switched virtual interfaces (SVIs)	256	256	256
Jumbo frame	9600	9600	9600

Table 15. Performance specifications with 16 ports

FS P/N	S5850-16T16BS2Q
Switching capacity	752Gbps
Forwarding rate	540Mpps
Total number of MAC addresses	98304
Total number of IPv4 routes (indirect routes)	56K
Total number of IPv4 host routes (direct routes and ARP)	12288 (default)
Total number of IPv6 routes (indirect routes)	4096
Total number of IPv6 host routes (direct routes and NDP)	2048 (default)
Total number of IPv4 multicast routes	-
Total number of IPv6 multicast routes	256
QoS ACL scale	1532
Security ACL scale	IPv4: 1488 (ingress), 464 (egress) IPv6: 744 (ingress), 232 (egress)
VLAN IDs	4094
STP virtual ports (port* VLANs) for MST	64
Total switched virtual interfaces (SVIs)	256
Jumbo frame	9600

Platform benefits

Table 16 lists the software spotlights for the FS S5850 series switches.

Table 16.   Software spotlights

Functionality	Description
Ethernet Switching	• Ethernet Ports Management Configuration • Static Link Aggregation (LAG) Configuration • QinQ: Basic QinQ, Selective QinQ • Spanning Tree Protocol (STP): STP, RSTP, MSTP, BPDU Guard, Root Guard, Loop Guard, Anti TC-BPDU attack • Ethernet linear protection switching (ELPS) • Ethernet Ring Protection Switching (ERPS) • Unidirectional Link Detection (UDLD) • NVGRE, VXLAN, GENEVE
Quality of Service (Qos)	• 13 hardware queues per-port (8 unicast queues, 4 multicast queues and 1 monitor queue) • 10 hardware queues per-port (8 unicast queues, 1 multicast queues and 1 monitor queue) (Only for S5850-48B8C / S5850-48S8C / S5850-24B4C) • Weighted Random Early Detection (WRED) • Tail Drop (TD) • Priority Flow Control (PFC) • Enhanced Transmission Selection (ETS) (Except for S5850-24B4C) • Quantized Congestion Notification (QCN) (Except for S5850-24B4C) • Strict Priority (SP) scheduling • Weighted Deficit Round Robin (WDRR) scheduling • SP + WDRR mixed scheduling • Traffic classification based on COS/DSCP (simple classification)
Access Control List	• IPv4/IPv6 ACL
Security	• MACsec • Prevent DDOS attack (Only for S5850-24S2Q / S5850-24B4C) • MAC whitelisting • Dynamic Address Resolution Protocol (ARP) inspection (DAI) • IP source guard • AAA, 802.1X, RADIUS authentication, TACAS+ • Control Plane Protect (CoPP) black & white list and rate limit features
High Availability	• Multi-Chassis Link Aggregation (MLAG) • Support mixed configuration MLAG with S3950, S5800, S5850 and S8050 series switches • LACP, VRRP, VARP, Smart Link, BFD, Load-Balancing, etc
IP Routing	• Static routing, Lline-rate IPv4/IPv6 dual-stack, • RIP, RIPng, OSPF v2/v3 • BGP, BGP4+
Multicast	• IPv4 and IPv6 multicast functions • IGMP v1/v2/v3, IGMP Snooping v1/v2/v3, MLD, PIM, PIM-SM, PIM-SSM • Up to 2K multicast groups and 4K logical replications per group • IPTV service and multicast latency control
Device Management	• Hardware management: modular power redundancy and fan redundancy • WEB UI, Telnet, SSH, using 10/100/1000Mbps management port or service ports • CLI-based, using console ports • Simple Network Management Protocol (Managed by Zabbix) v1, v2, and v3 • RPC-API for Software Defined Network (SDN)

Functionality	Description
IP Service	• Triple-Play services such as IPTV, video monitoring • Address Resolution Protocol (ARP) • Dynamic Host Configuration Protocol (DHCP): DHCP Server Relay、DHCP Snooping • Equal-Cost Multipath Routing (ECMP): 240 ECMP groups, each group can support up to 64 members (Only for S5850-48B8C / S5850-48S8C), Load balancing • LIC-FIX-MA license for advanced features of MPLS, LDP, MPLS-L2VPN, MPLS-L3VPN, VxLAN-BGP-EVPN, IPFIX

Licenseing

Metro Advanced License includes the functions of MPLS, LDP, MPLS-L2VPN, MPLS-L3VPN, VxLAN-BGP-EVPN, and IPFIX. The license is specific to the switch for which it is issued and is not valid on any other switch, so the license is not portable across devices.

Metro Advanced License is offered as a perpetual license, it is applicable to multiple devices, including S5800- 48T4S, S5800-48F4SR, S5850-24XMG, S5850-32S2Q, S5850-48S6Q, S5850- 48S6Q-R, S5850-48S6Q-R-PE, S5850-48S2Q4C, S5850-48T4Q, S5850-48T4Q-PE, S8050-20Q4C, S5800-48T4S-DC, S5800-48T4S-PE, S5800-48F4SR-DC, S5800-48MBQ, S5800-24T8S, S8550-6Q2C.

For more information, visit: https://www.fs.com/products/100590.html

▌Product specifications

Table 17 through 21 show the product specifications for the FS S5850 series switches.

Table 17.   Product specifications with 48 ports

Description	S5850-48T4Q	S5850-48S6Q	S5850-48S6Q-R
Environmental			
Operating temperature	0 to 45℃ (32 to 113°F)	0 to 45℃ (32 to 113°F)	0 to 45℃ (32 to 113°F)
Storage temperature	-40 to 70℃ (-40 to 158°F)	-40 to 70℃ (-40 to 158°F)	-40 to 70℃ (-40 to 158°F)
Operating humidity	10% to 90% (Non condensing)	10% to 90% (Non condensing)	10% to 90% (Non condensing)
Storage humidity	0 to 95% (Non condensing)	0 to 95% (Non condensing)	0 to 95% (Non condensing)
Temperature alarm	Supported	Supported	Supported
Acoustic noise	<77dB	52.4dB	41.7dB
Physical specifications			
Dimensions (HxWxD)	1.72"x17.32"x16.54" (43.6x440x420mm)	1.72"x17.32"x18.5" (43.6x440x470mm)	1.73"x17.4"x17.75" (44x442x451mm)
Rack units (RU)	1 RU	1 RU	1 RU
Weight	17lbs (7.9kg)	18lbs (8.3kg)	20.3lbs (9.2kg)
Distance	100M	-	-
Electrical			
Voltage (auto ranging)	100-240VAC	100-240VAC	100-240VAC
Frequency	50-60Hz	50-60Hz	50-60Hz
Current	7.5A Max	6A Max	7A Max
Power rating (maximum consumption)	225W	150W	125W
Mean-time between failures			
MTBF (hours)	>90,000	97,210.07	>70,080

Description	S5850-48T4Q	S5850-48S6Q	S5850-48S6Q-R
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		

Table 18. Product specifications with 48 ports

Description	S5850-48B8C	S5850-48S8C	S5850-48XMG8C
Environmental			
Operating temperature	0 to 45ºC (32 to 113°F)	0 to 45ºC (32 to 113°F)	0 to 45ºC (32 to 113°F)
Storage temperature	-40 to 70ºC (-40 to 158°F)	-40 to 70ºC (-40 to 158°F)	-40 to 70ºC (-40 to 158°F)
Operating humidity	10% to 90% (Non condensing)	10% to 90% (Non condensing)	10% to 90% (Non condensing)
Storage humidity	0 to 95% (Non condensing)	0 to 95% (Non condensing)	5% to 95% (Non condensing)
Temperature alarm	Supported	Supported	Supported
Acoustic noise	60.8dB	60.8dB (AC) 60.4dB (DC)	-
Physical specifications			
Dimensions (HxWxD)	1.72"x17.32"x16.54" (43.6x440x420mm)	1.72"x17.32"x18.5" (43.6x440x470mm)	1.73"x11.41"x16.54" (44x442x420mm）
Rack units (RU)	1 RU	1 RU	1 RU
Weight	20.3lbs (9.2kg)	20.3lbs (9.2kg)	18.04 lbs (8.18kg)
Distance	-	-	-

Description	S5850-48B8C	S5850-48S8C	S5850-48XMG8C
Electrical			
Voltage (auto ranging)	100-240VAC	100-240VAC; -36V to -72V (S5850-48S8C-DC)	100-240VAC
Frequency	50-60Hz	50-60Hz	50-60Hz
Current	7A Max	7A Max	7A Max
Power rating (maximum consumption)	125W	125W	260W
Mean-time between failures			
MTBF (hours)	>90,000	97,210.07	≥ 90,000
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		

Table 19.   Product specifications with 24 ports

Description	S5850-24S2Q	S5850-24S2C	S5850-24T16B
Environmental			
Operating temperature	0 to 45℃ (32 to 113°F)	0 to 45℃ (32 to 113°F)	0 to 45℃ (32 to 113°F)
Storage temperature	-40 to 70℃ (-40 to 158°F)	-40 to 70℃ (-40 to 158°F)	-40 to 70℃ (-40 to 158°F)
Operating humidity	0% to 95% (Non condensing)	10% to 90% (Non condensing)	10% to 90% (Non condensing)
Storage humidity	0 to 95% (Non condensing)	0 to 95% (Non condensing)	0 to 95% (Non condensing)

Description	S5850-24S2Q	S5850-24S2C	S5850-24T16B
Temperature alarm	Supported	Supported	Supported
Acoustic noise	52.6dB	52.6dB	63.9dB

Physical specifications

Dimensions (HxWxD)	1.73"x17.5"x14.6" (43.6x440x370mm)	1.73"x17.5"x14.6" (43.6x440x370mm)	1.72"x17.32"x13.78" (43.6x440x350mm)
Rack units (RU)	1RU	1RU	1RU
Weight	13.11lbs (5.95kg)	13.11lbs (5.95kg)	13.11lbs (5.95kg)

Electrical

Voltage (auto ranging)	100-240VAC; -36V to -72V (S5850-24S2Q-DC)	100-240VAC; -36V to -72V (S5850-24S2C-DC)	100-240VAC
Frequency	50-60Hz	50-60Hz	50-60Hz
Current	2A	2A	2A
Power rating (maximum consumption)	44W	44W	55W

Mean-time between failures

MTBF (hours)	206,988	206,988	216,431.48

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

Table 20.   Product specifications with 24 ports

Description	S5850-24XMG	S5850-24XMG-U	S5850-24B4C
Environmental			
Operating temperature	0 to 45ºC (32 to 113°F)	0 to 45ºC (32 to 113°F)	0 to 45ºC (32 to 113°F)
Storage temperature	-40 to 70ºC (-40 to 158°F)	-40 to 70ºC (-40 to 158°F)	-40 to 70ºC (-40 to 158°F)
Operating humidity	0 to 95% (Non condensing)	10% to 90% (Non condensing)	10% to 90% (Non condensing)
Storage humidity	0 to 95% (Non condensing)	0 to 95% (Non condensing)	0 to 95% (Non condensing)
Temperature alarm	Supported	Supported	Supported
Acoustic noise	52.6dB	52.6dB	63.9dB
Physical specifications			
Dimensions (HxWxD)	1.73"x17.5"x14.6" (43.6x440x370mm)	1.73"x17.5"x14.6" (43.6x440x370mm)	1.72"x17.32"x13.78'' (43.6x440x350mm)
Rack units (RU)	1 RU	1 RU	1 RU
Weight	13.11lbs (5.95kg)	13.11lbs (5.95kg)	13.11lbs (5.95kg)
Electrical			
Voltage (auto ranging)	100-240VAC	100-240VAC	100-240VAC
Frequency	50-60Hz	50-60Hz	50-60Hz
Current	8.5A	8.5A	7A Max
Power rating (maximum consumption)	100W	100W without PoE	130W
Mean-time between failures			
MTBF (hours)	90,000	90,000	198,000
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		

Description	S5850-24XMG	S5850-24XMG-U	S5850-24B4C
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		

Table 21.   Product specifications with 16 ports

Description	S5850-16T16BS2Q
Environmental	
Operating temperature	0 to 45ºC (32 to 113°F)
Storage temperature	-40 to 70ºC (-40 to 158°F)
Operating humidity	0 to 95% (Non condensing)
Storage humidity	0 to 95% (Non condensing)
Temperature alarm	Supported
Acoustic noise	51.8dB
Physical specifications	
Dimensions (HxWxD)	1.73"x17.5"x14.6" (43.6x440x370mm)
Rack units (RU)	1 RU
Weight	13.44lbs (6.1kg)
Distance	100M
Electrical	
Voltage (auto ranging)	100-240VAC
Frequency	50-60Hz
Current	2A Max
Power rating (maximum consumption)	55W

Description	S5850-16T16BS2Q

Mean-time between failures

MTBF (hours)	>70080

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) • 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	802.1x, AAA, RMON, SNMPV1 V2 V3, HTTP Telnet, SSH

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 14 shows some of the authoritative certifications obtained by FS S5850 Series Switches.

Figure 14.

Optics supported

For details about the optical modules available, visit：
S5850-48T4Q: [Transceivers DACs and AOCs Supported on S5850-48T4Q Switch](#)
S5850-24S2Q: [Transceivers DACs and AOCs Supported on S5850-24S2Q Switch](#)

Warranty, service and support

FS S5850 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 24/5 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 22 provides the ordering information for S5850 series switches.

Table 22.   Ordering information

FS P/N	Product description
Switch hardware	
S5850-48T4Q	S5850-48T4Q, 48-Port Ethernet L3 Switch, 48 x 10GBASE-T, with 4 x 40Gb QSFP+, Support MLAG
S5850-48T4Q-PE	S5850-48T4Q-PE, 48-Port Ethernet L3 Switch, 48 x 10GBASE-T, with 4 x 40Gb QSFP+, Support MLAG
S5850-48S6Q	S5850-48S6Q, 48-Port Ethernet L3 Switch, 48 x 10Gb SFP+, with 6 x 40Gb QSFP+, Support MLAG
S5850-48S6Q-R	S5850-48S6Q-R, 48-Port Ethernet L3 Switch, 48 x 10Gb SFP+, with 6 x 40Gb QSFP+, Support MLAG
S5850-48S6Q-R-PE	S5850-48S6Q-R-PE, 48-Port Ethernet L3 Switch, 48 x 10Gb SFP+, with 6 x 40Gb QSFP+, Support MLAG
S5850-48B8C	S5850-48B8C, 48-Port Ethernet L3 Switch, 48 x 25Gb SFP28, with 8 x 100Gb QSFP28, Support MLAG
S5850-48B8C-PE	S5850-48B8C-PE, 48-Port Ethernet L3 Switch, 48 x 25Gb SFP28, with 8 x 100Gb QSFP28, Support MLAG
S5850-48S8C	S5850-48S8C, 48-Port Ethernet L3 Switch, 48 x 10Gb SFP+, with 8 x 100Gb QSFP28, Support MLAG
S5850-48S8C-PE	S5850-48S8C-PE, 48-Port Ethernet L3 Switch, 48 x 10Gb SFP+, with 8 x 100Gb QSFP28, Support MLAG
S5850-48S8C-DC	S5850-48S8C-DC, 48-Port Ethernet L3 Switch, 48 x 10Gb SFP+, with 8 x 100Gb QSFP28, Support MLAG, Dual DC PSUs
S5850-24S2Q	S5850-24S2Q, 24-Port Ethernet L3 Switch, 24 x 10Gb SFP+, with 2 x 40Gb QSFP+, Support MLAG
S5850-24S2Q-PE	S5850-24S2Q-PE, 24-Port Ethernet L3 Switch, 24 x 10Gb SFP+, with 2 x 40Gb QSFP+, Support MLAG
S5850-24S2Q-DC	S5850-24S2Q-DC, 24-Port Ethernet L3 Switch, 24 x 10Gb SFP+, with 2 x 40Gb QSFP+, Support MLAG, Dual DC PSUs
S5850-24S2C	S5850-24S2C, 24-Port Ethernet L3 Switch, 24 x 10Gb SFP+, with 2x 100Gb QSFP28, Support MLAG
S5850-24S2C-PE	S5850-24S2C-PE, 24-Port Ethernet L3 Switch, 24 x 10Gb SFP+, with 2x 100Gb QSFP28, Support MLAG
S5850-24S2C-DC	S5850-24S2C-DC, 24-Port Ethernet L3 Switch, 24 x 10Gb SFP+, with 2x 100Gb QSFP28, Support MLAG, Dual DC PSUs
S5850-24T16B	S5850-24T16B, 16-Port Ethernet L3 Switch, 16 x 25Gb SFP28, with 24 x Gigabit RJ45, Hyper-Converged Infrastructure
S5850-24XMG	S5850-24XMG, 24-Port Ethernet L3 Switch, 24 x 10GBASE-T/Multi-Gigabit, with 2 x 100Gb QSFP28, Support MLAG
S5850-24XMG-U	S5850-24XMG-U, 24-Port Ethernet L3 PoE++ Switch, 24 x PoE++ Ports @1000W, with 2 x 100Gb QSFP28, Support MLAG
S5850-24B4C	S5850-24B4C, 24-Port Ethernet L3 Switch, 24 x 25Gb SFP28, with 4 x 100Gb QSFP28, Support MLAG

FS P/N	Product description
S5850-16T16BS2Q	S5850-16T16BS2Q, 16-Port Gigabit Ethernet L3 Switch, 16 x Gigabit RJ45, with 8 x 10Gb SFP+, 8 x 25Gb SFP28 and 2 x 40Gb QSFP+, Support MLAG
S5850-48XMG8C	S5850-48XMG8C, 48-Port Ethernet L3 Switch, 48 x 10GBASE-T/Multi-Gigabit, with 8 x 100Gb QSFP28, Support MLAG

Software licenses

LIC-FIX-MA	Metro Advanced License for S5800, S5850, S8050 Series Switches, Includes MPLS, VXLAN-BGP-EVPN, Permanent

Power supplies

GPR150-A1M	Hot-swappable AC Power Module 150W, for S5800-48F4SR, S5800-48T4S, S5850-24S2Q, S5850-24S2C
FSP150-HS12	Hot-swappable DC Power Module 150W, for S5800-48F4SR, S5800-48T4S, S5850-24S2Q
YM-1151E	Hot-swappable DC Power Module 150W, for S5850-32S2Q, S5800-8TF12S, S5850-24T16B, T5850-32S2Q, T5800-8TF12S
GW-T150WV12	Hot-swappable AC Power Module 150W, for S5850-32S2Q, S5800-8TF12S, S5850-24T16B, T5850-32S2Q and T5800-8TF12S
UM400D01-01	Hot-swappable DC Power Module 400W, for S5850-48S6Q, S5850-48S2Q4C, S8050-20Q4C, T5850-48S6Q, T5850-48S2Q4C, T8050-20Q4C

Fan Module

AFM-5850-8050	Hot-swappable Fan Module, Front-to-Back Airflow through the S5850-48S6Q, S5850-48S2Q4C and S8050-20Q4C Switches Chassises

Spare power cords

FSPSABSC13-10A	6ft (1.8m) SABS to IEC320 C13 250V/10A Power Extension Cord, Black

Additional information

For more information about the S5850 Series Switches, contact your account manager or visit
https://www.fs.com/search_result?keyword=S5850

Document history

New or revised topic	Described in	Date
FS S5850 Series Switches Data Sheet	Add S5850-48XMG8C	2025-2-24
FS S5850 Series Switches Data Sheet	Add S5850-16T16BS2Q	2023-10-13
FS S5850 Series Switches Data Sheet	Add S5850-24B4C	2023-5-29
FS S5850 Series Switches Data Sheet	Add S5850-48S6Q-R; S5850-48S6Q-R-PE; S5850-48B8C-PE; S5850-48S8C-PE; S5850-24S2Q-PE; S5850-24S2C-PE	2023-2-2
Updates to FS S5850 Series Switches Data Sheet	Updated all	2022-10-29