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FS N5850 Series Switches Data Sheet

Contents

Product overview	3
Product highlights	3
Platform details	4
Product specifications	7
Quality certification	8
Warranty, service and support	8
Ordering information	9
Additional information	9
Document history	9

Product overview

FS N5850 Series Data Center Switches are a series of high performance switches that provide 10G/25G/40G/100G wirespeed connectivity for high-density availability and uplink options, designed to be deployed as Top-of-Rack (ToR) or leaf-spine switches in data center applications.

This switch is loaded with the white box Install Environment, which supports the installation of compatible Network Operating System software, including the open source options Open Network Linux, plus commercial NOS offerings.

N5850-48S6Q switch is a leaf switch for data centers and large enterprise networks. It is a TOR (Top-of-Rack) or Leaf switch in a compact 1U form factor with 48 10Gb SFP+ and 6 40Gb QSFP+, which is capable for high-density availability and uplink options.

N5850-48S6C switch is ideal for data centers and large enterprise networks. It is a spine switch in a compact 1U form factor with 48 10Gb SFP+, 6 100Gb QSFP28. Each QSFP28 port supports 100GbE or 4x25Gb, providing high-density availability.

N5850-48X6C switch is ideal for data centers and large enterprise networks. It is a spine switch in a compact 1U form factor with 48 10Gb RJ-45, 6 100Gb QSFP28. Each QSFP28 port supports 100GbE or 4x25Gb, providing high-density availability.

Product highlights

- Flexible 10/40/100GbE Interface Speeds
- Compatible with Open Network Linux (ONL), Pica8 Inc. PicOS™ etc. (For N5850-48S6Q)
- 1+1 Hot-Swappable Power Supplies, 4+1 Smart Fans (For N5850-48S6Q)
- Intel Atom C2538 Processor Quad-core 2.4 GHz (For N5850-48S6Q)
- Intel Atom C3558 Processor Quad-core 2.2 GHz (For N5850-48S6C/N5850-48X6C)

Platform details

Switch models and configurations

Figures 1 through 3 show the FS N5850 series switches.

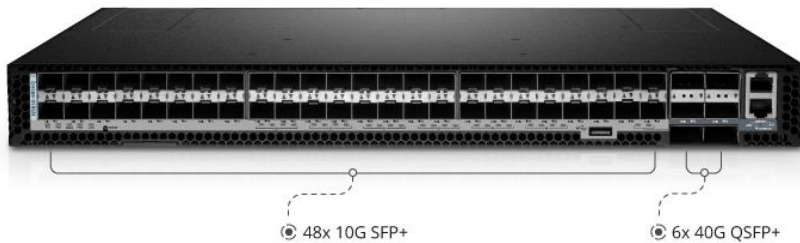


Figure 1.

N5850-48S6Q, 48-Port Ethernet L3 Data Center Bare Metal Switch, 48 x 10Gb SFP+, with 6 x 40Gb QSFP+ Uplinks, Broadcom Chip

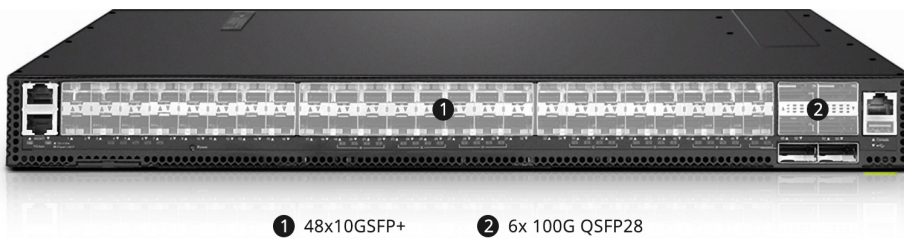


Figure 2.

N5850-48S6C, 48-Port Ethernet L3 Data Center Bare Metal Switch, 48 x 10Gb SFP+, with 6 x 100Gb QSFP28 Uplinks, Broadcom Chip

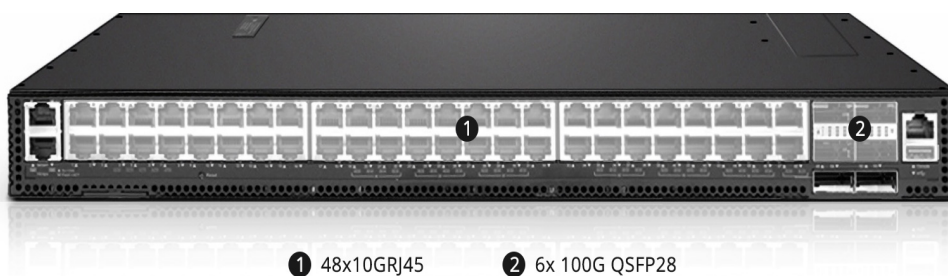


Figure 3.

N5850-48X6C, 48-Port Ethernet L3 Data Center Bare Metal Switch, 48 x 10Gb RJ45, with 6 x 100Gb QSFP28, Broadcom Chip

Switch configurations and port density

Table 1 shows the FS N5850 series configurations and port density

Table 1. Switch configuration and port density

FS P/N	N5850-48S6Q	N5850-48S6C	N5850-48X6C
Description	N5850-48S6Q, 48-Port Ethernet L3 Data Center Bare Metal Switch, 48 x 10Gb SFP+, with 6 x 40Gb QSFP+ Uplinks, Broadcom Chip	N5850-48S6C, 48-Port Ethernet L3 Data Center Bare Metal Switch, 48 x 10Gb SFP+, with 6 x 100Gb QSFP28 Uplinks, Broadcom Chip	N5850-48X6C, 48-Port Ethernet L3 Data Center Bare Metal Switch, 48 x 10Gb RJ45, with 6 x 100Gb QSFP28 Uplinks, Broadcom Chip
Port			
10G port density	48	48	48
25G port density	-	-	-
40G port density	6	-	-
100G port density	-	6	6
Management ports	1	1	1
Console port	1	1	1
USB port	1	1	1
Memory and processor			
Switch chip	Broadcom BCM56864 Trident II+	Broadcom BCM56771 Trident III	Broadcom BCM56771Trident III
CPU	Intel Atom C2538 processor quad-core 2.4GHz	Intel® Atom® C-3558 2.2GHz 4-Core x86 processor	Intel® Atom® C-3558 2.2GHz 4-Core x86 processor
DRAM	8GB SO-DIMM DDR3 RAM with ECC	2x 8 GB SO-DIMM	2x 8 GB SO-DIMM
Flash memory	16MB	16MB x 2	16MB x 2
Packet buffer	16MB integrated packet buffer	32MB integrated packet buffer	32MB integrated packet buffer

Power supplies and fans

The FS N5850 Series switches ship with the dual 1+1 redundant AC power supply as default.

Table 2 provides more details on the FS N5850 series power supplies and fan specifications.

Table 2. Power supply and fan specifications

Description	N5850-48S6Q	N5850-48S6C	N5850-48X6C
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	5x Hot-swappable Fans (4+1 Redundancy)	5x Hot-swappable Fans (4+1 Redundancy)	5x Hot-swappable Fans (4+1 Redundancy)
Airflow	Back-to-Front	Front-to-Back	Front-to-Back
Acoustic noise	-	-	-
Max. power consumption	282W	356W	323W
Input-voltage range and frequency	100-240VAC, 50-60Hz, 6-3A	100-240VAC, 50-60Hz	100-240VAC, 50-60Hz

Switch performance

Table 3 shows performance specifications for the FS N5850 series switches

Table 3. Performance specifications

Description	N5850-48S6Q	N5850-48S6C	N5850-48X6C
Layer Type	Layer 3	Layer 3	Layer 3
Switching Capacity	1.44 Tbps full duplex	1.08 Tbps	1.08 Tbps
Total number of MAC addresses	-	98K	98K
VLAN IDs	4K	32K min./288K max.	32K min./288K max.
Jumbo frame	Up to 9216 Byte	9K bytes	9K bytes

Product specifications

Table 4 shows the product specifications for the FS N5850 series switches.

Table 4. Product specifications

Description	N5850-48S6Q	N5850-48S6C	N5850-48X6C
Environmental			
Operating temperature	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)
Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Operating humidity	5% to 95% (Non-condensing)	5% to 95% (Non-condensing)	5% to 95% (Non-condensing)
Storage humidity	5% to 95% (Non-condensing)	-	-
Physical specifications			
Dimensions (HxWxD)	1.71"x17.26"x18.62" (43.4x438.4x473mm)	1.73"x17.42"x18.63" (43.95x442.5x473.3mm)	1.73"x17.42"x18.63" (43.95x442.5x473.3mm)
Rack units (RU)	1 RU	1 RU	1 RU
Weight	19.73 lbs (8.95 kg), with two installed PSUs	19.43 lbs (8.815kg), with two installed PSUs	21.14 lbs (9.59kg), with two installed PSUs
Electrical			
Voltage (auto ranging)	100-240VAC	100-240VAC, 50-60HZ 6A	100-240VAC, 50-60HZ 6A
Power rating (maximum consumption)	282W	356W	323W

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 3 shows some of the authoritative certifications obtained by FS N5850 Series Switches.



Figure 3.

Warranty, service and support

FS N5850 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](https://www.fs.com/service/fs_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

Ordering information

Table 5 provides the ordering information for N5850 series switches.

Table 5. Ordering information

FS P/N	Product description
Switch hardware	
N5850-48S6Q	N5850-48S6Q, 48-Port Ethernet L3 Data Center Bare Metal Switch, 48 x 10Gb SFP+, with 6 x 40Gb QSFP+ Uplinks, Broadcom Chip
N5850-48S6C	N5850-48S6C, 48-Port Ethernet L3 Data Center Bare Metal Switch, 48 x 10Gb SFP+, with 6 x 100Gb QSFP28 Uplinks, Broadcom Chip
N5850-48X6C	N5850-48X6C, 48-Port Ethernet L3 Data Center Bare Metal Switch, 48x 10Gb RJ-45, with 6 x 100Gb QSFP28 Uplinks, Broadcom Chip

Additional information

For more information about the N5850 Series Switches, contact your account manager or visit

https://www.fs.com/search_result?keyword=N5850

Document history

New or revised topic	Described in	Date
Updates to FS N5850 Series Switches Data Sheet	Delete the information of FSOS operating system	11/14/2022
	Updated all	11/3/2022



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