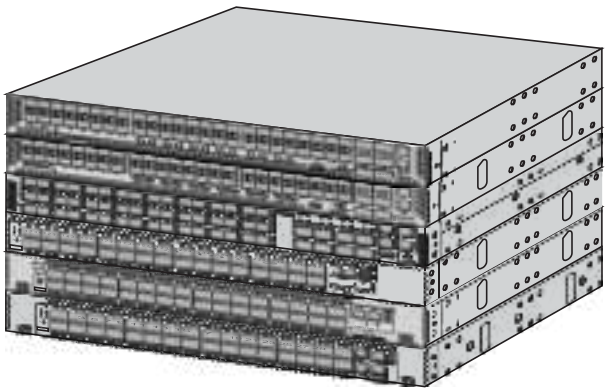


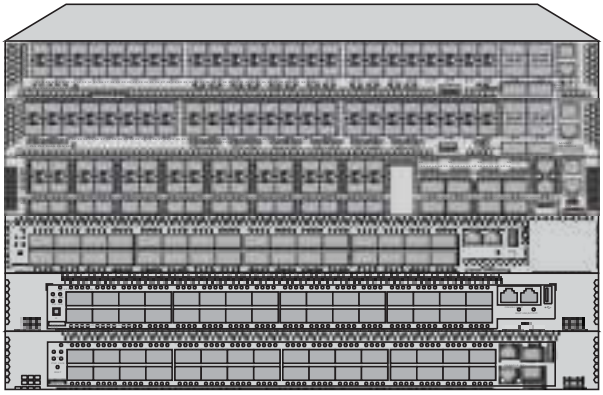
N Series 10G/25G/40G/100G Switches

MANAGED L2/L3 DATA CENTER SWITCHES

Quick Start Guide V2.0

Introduction

Thank yoff for choosing N Series 10G/25G/40G/100G Switches. This guide is designed to familiarize yoff with the layofft of the switch and describes how to deploy the switch in yoffr network.



N5850-48S6Q

N8520-48B6C

N8550-48B8C

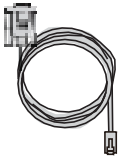
N8050-32Q

N8520-32C

N8550-32C

Accessories

Power Cordx2



Console Cable x1

Rear-post Bracket x2

Front-post Bracket x2

M4 Screw x20

Ear-locking Screw x2

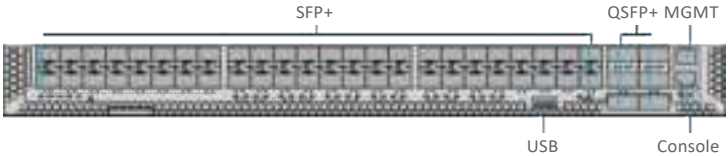
Holder Bracket x2

NOTE: The switch includes plug-in power supply (PSU) and fan tray modules that are installed into its chassis.

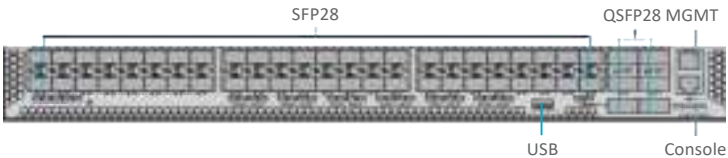
Hardware Overview

Front Panel Ports

N5850-48S6Q

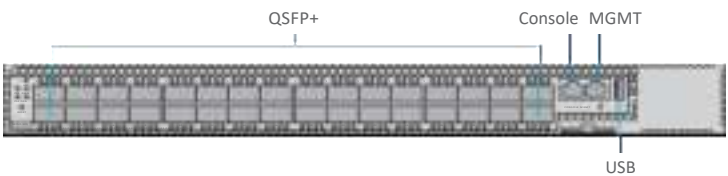


N8520-48B6C

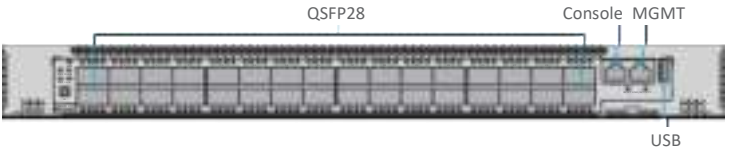


N8550-48B8C

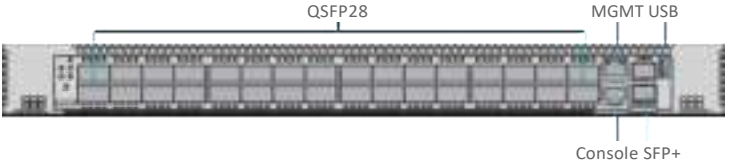
N8050-32Q



N8520-32C



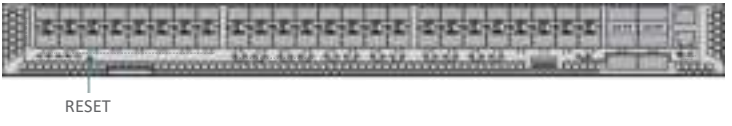
N8550-32C



Ports	Description
SFP+	SFP+ ports for 1/10G transceivers
SFP28	SFP28 ports for 25G transceivers
QSFP+	QSFP+ ports for 40G transceivers
QSFP28	QSFP28 ports for 100G transceivers
MGMT	An Ethernet management port
Console	An RJ45 console port for serial management
USB	A USB2.0 management port

Front Panel Button

N5850-48S6Q

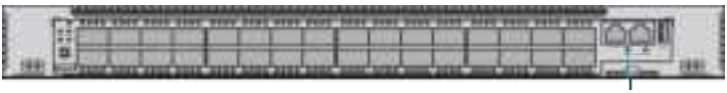


N8520-48B6C

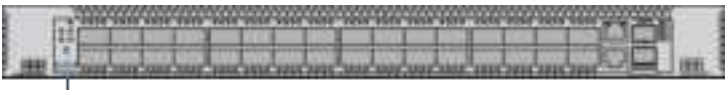
N8550-48B8C

N8050-32Q

N8520-32C



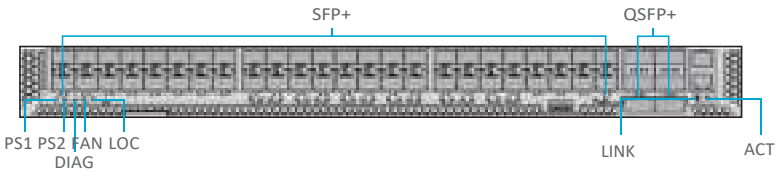
N8550-32C



Button	Description
RESET	Restart: Press and release the Reset button quickly.
	Restore to Factory Default Settings: Press and hold the Reset button for more than five seconds.

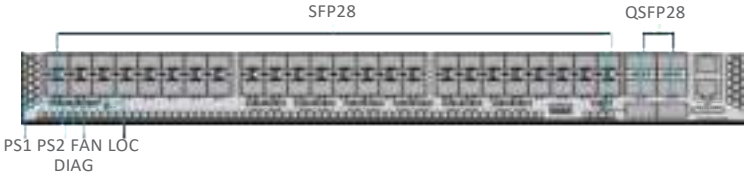
Front Panel LEDs

N5850-48S6Q



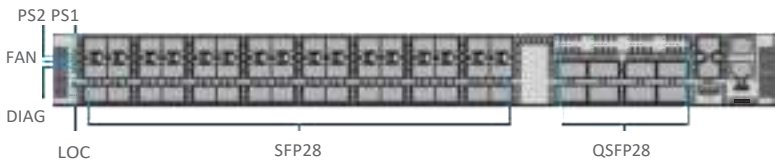
LEDs	Status	Description
SFP+	On/Flashing Amber	SFP+ port has a valid link at 10G. Flashing indicates activity.
	off	There is no link on the port.
QSFP+ in 40G Mode	On/Flashing Amber	QSFP+ port has a valid link at 40G. Flashing indicates activity.
	off	There is no link on the port.
LINK/ ACT	Amber	Switch runs normally.

N8520-48B6C



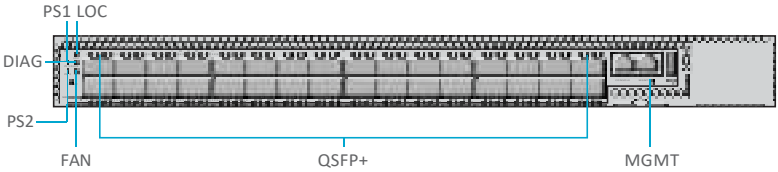
LEDs	Status	Description
SFP28	Green	25 Gbps mode.
	Amber	10 Gbps mode.
QSFP28	1 LED Green	100 Gbps mode.
	1 LED Blue	40 Gbps mode.
	1-4 LEDs Amber	25 Gbps breakofft mode (foffr lanes).
	1-4 LEDs Purple	10 Gbps breakofft mode (foffr lanes).

N8550-48B8C



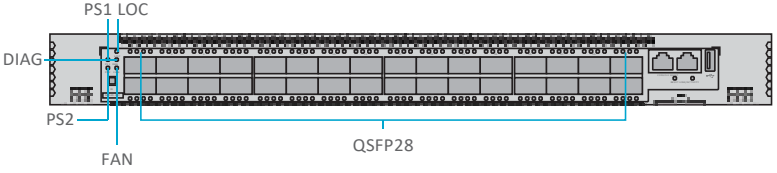
LEDs	Status	Description
SFP28	Green	25 Gbps mode.
QSFP28	1 LED Green	100 Gbps mode.
	1 LED Blue	40 Gbps mode.
SFP+	Green	10 Gbps mode.

N8050-32Q



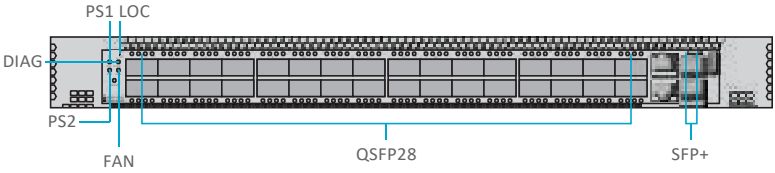
LEDs	Status	Description
QSFP+	On/Flashing Green	QSFP+ port has a valid link at 40G. Flashing indicates activity.
	On/Flashing Orange	QSFP+ port has a valid link at 10G via break offt cable. Flashing indicates activity.
	off	There is no link on the port.
MGMT (Link)	On Green	Port has a valid link.
	off	There is no link on the port.
MGMT (Activity)	Flashing Green	Flashing indicates activity.
	off	There is no link on the port.

N8520-32C



LEDs	Status	Description
QSFP28	1 LED Blue	100 Gbps mode.
	1-2 LEDs Purple	50 Gbps breakofft mode (two lanes).
	1 LED Orange	40 Gbps mode.
	1-4 LEDs White	25 Gbps breakofft mode (foffr lanes).
	1-4 LEDs Green	10 Gbps breakofft mode (foffr lanes).

N8550-32C



LEDs	Status	Description
SFP+	Green	10 Gbps mode.
QSFP28	1 LED Blue	100 Gbps mode.
	1 LED red	40 Gbps mode.

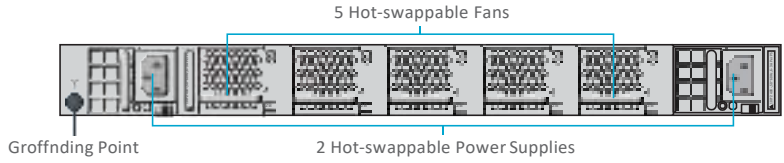
N Series Switches

LEDs	Status	Description
PS1/PS2	Green	PWR is operating normally.
	Red	PWR present but not power on or this power is fault.
	off	PWR not present.
LOC	Yellow Flashing	Flashing by remote management command. Assists the technician in finding the right device for the service in the rack.
	off	Not a particular switch that technician need to find.
DIAG	Green	System self-diagnostic test successfully completed. (By OS definition)
	Red	System self-diagnostic test has detected a fault.
	off	System off.

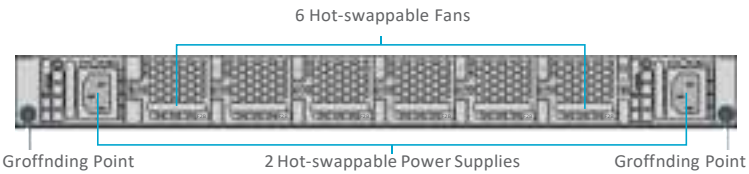
LEDs	Status	Description
FAN	Green	System FAN operating normally.
	Red	FAN tray present but system FAN is fault.
	off	System off.

Back Panel

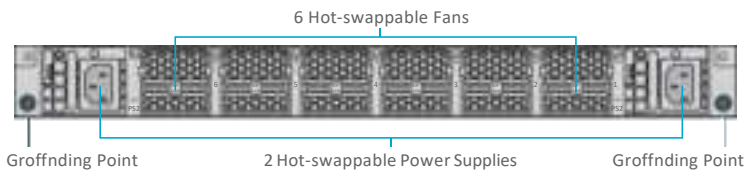
N5850-48S6Q



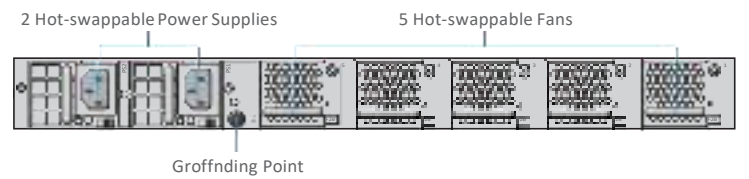
N8520-48B6C



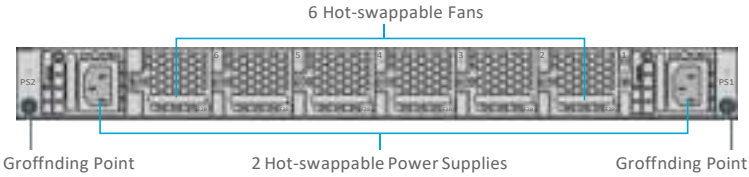
N8550-48B8C



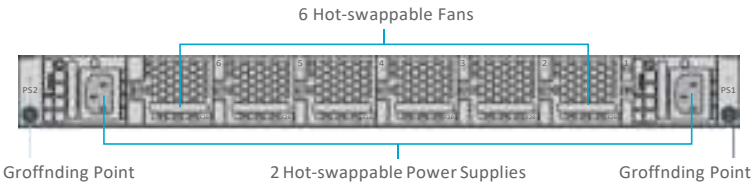
N8050-32Q



N8520-32C



N8550-32C



Installation Requirements

Before yoff begin the installation, make sure that yoff have the following:

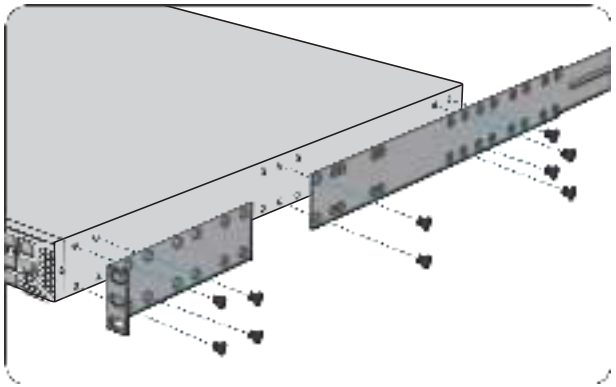
- Phillips screwdriver.
- Standard-sized, 19" wide rack with a minimum of 1U height available.
- Category 5e or higher RJ-45 Ethernet cables for connecting network devices.

Site Environment

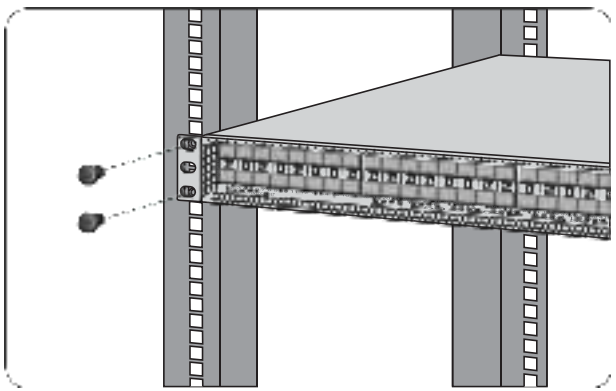
- Do not operate it in an area that exceeds an ambient temperature of 45°C.
- The installation site must be well ventilated. Ensure that there is adequate air flow aroffnd the switch.
- Be sure that the switch is level and stable to avoid any hazardoffs conditions.
- Do not install the equipment in a dusty environment.
- The installation site must be free from leaking or dripping water, heavy dew, and humidity. Ensure rack and working platforms are well earthed.

Moffnting the Switch

Attaching the Brackets

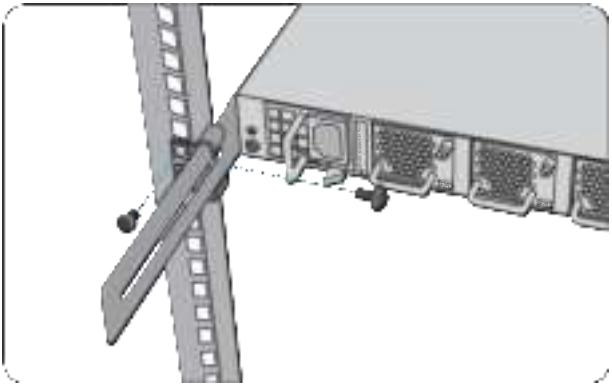


1. Attach each of the front- and rear-post brackets to the switch using foffr M4 screws, and secure each of the rear-post brackets at the mid-point on the sides of the switch with two M4 screws.



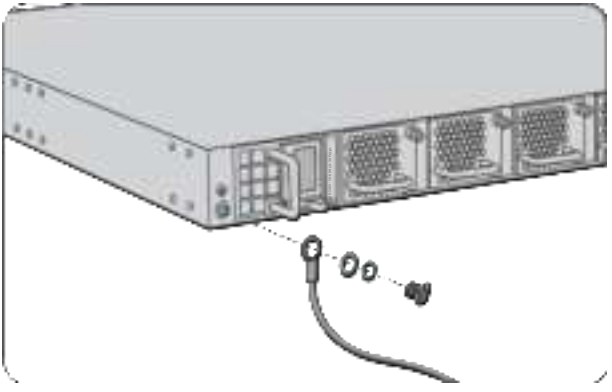
2. Use the screws and cage nuts supplied with the rack to secure the switch in the rack.

Adjusting Rear-Post Bracket Ears



1. First adjust the position of rear-post bracket ears and secure them in the rack.
2. Then lock the position of the rear-post bracket ears using the included ear-locking screw.

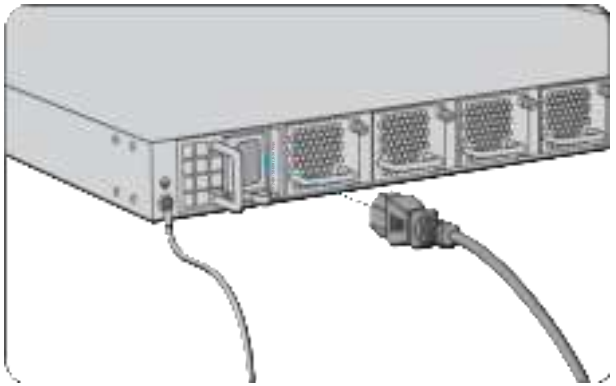
Groffnding the Switch



1. Connect one end of the groffnding cable to a proper earth groffnd, such as the rack in which the switch is moffnted.
2. Secure the groffnding lug to the groffnding point on the switch back panel with the washers and screws.

CAUTION: The earth connection must not be removed unless all supply connections have been disconnected.

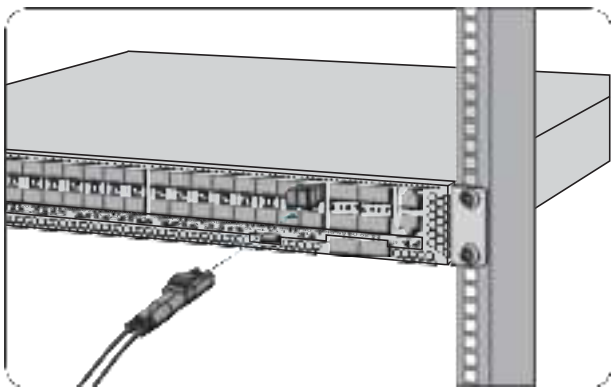
Connecting the Power



1. Plug the AC power cord into the power port on the back of the switch.
2. Connect the other end of the power cord to an AC power soffrce.

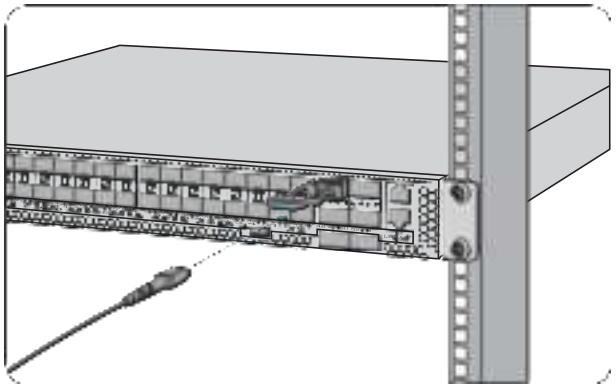
WARNING: Do not install power cables while the power is on.

Connecting the SFP+ Ports



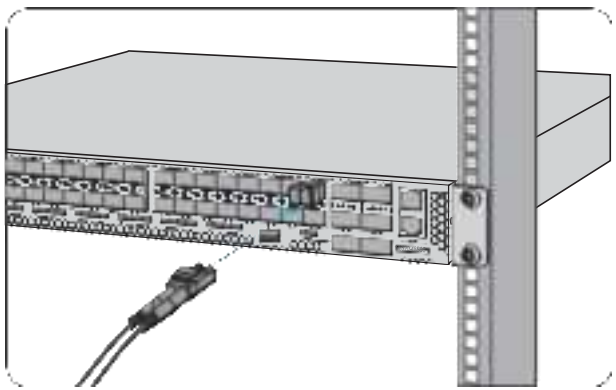
1. Plug the compatible SFP+ transceiver into the SFP+ port.
2. Connect a fiber optic cable to the fiber transceiver. Then connect the other end of the cable to another fiber device.

Connecting the QSFP+ Ports



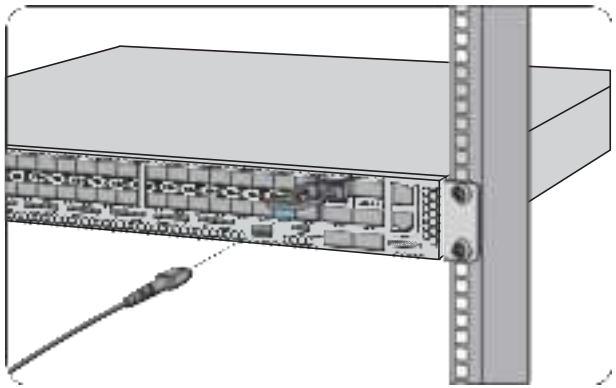
1. Plug the compatible QSFP+ transceiver into the QSFP+ port.
2. Connect a fiber optic cable to the fiber transceivers. Then connect the other end of the cable to other fiber devices.

Connecting the SFP28 Ports



1. Plug the compatible SFP28 transceiver into the SFP28 port.
2. Connect a fiber optic cable to the fiber transceivers. Then connect the other end of the cable to other fiber devices.

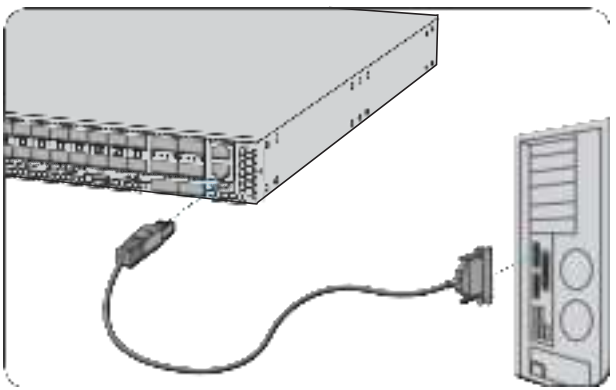
Connecting the QSFP28 Ports



1. Plug the compatible QSFP28 transceiver into the QSFP28 port.
2. Connect a fiber optic cable to the fiber transceivers. Then connect the other end of the cable to other fiber devices.

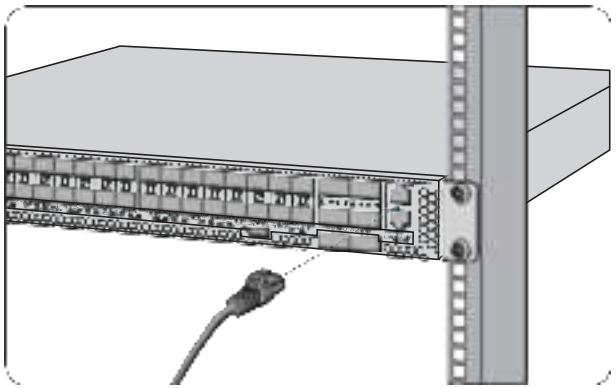
WARNING: Laser beams will cause eye damage. Do not look into bores of optical modules or optical fiber withofft eyeprotection.

Connecting the Console Port



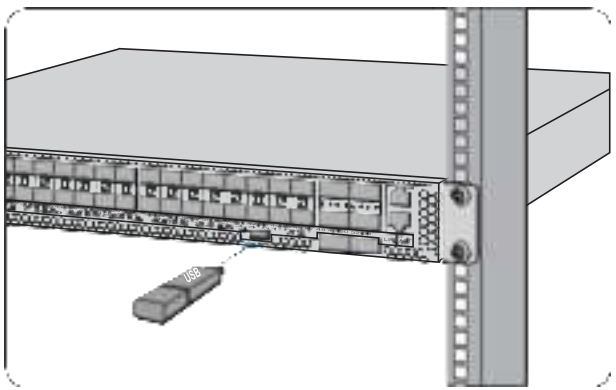
1. Insert the RJ45 connector of the console cable into the RJ45 console port on the front of the switch.
2. Connect the other end of the console cable to the RS-232 serial port on the computer.

Connecting the MGMT Port



1. Connect one end of a standard RJ45 Ethernet cable to a computer.
2. Connect the other end of the cable to the MGMT port on the front of the switch.

Connecting the USB Port



Insert USB flash disk.

Configuring the Switch (Only for Cumulus Linux Switch)

Installing Cumulus® Linux® License Over Switches

Install Cumulus Linux license key

There are three ways to install the license onto the switch:

- Copy and paste the license key into the cl-license command:
  cumulus@switch:~$ sudo cl-license -i
  <paste license key>
  ^+d
- Copy the license from a local server. Create a text file with the license and copy it to a server accessible from the switch. On the switch, use the following command to transfer the file directly on the switch, then install the license file:
  cumulus@switch:~$ scp user@my_server:/home/user/my_license_file. txt .
  cumulus@switch:~$ sudo cl-license -i my_license_file.txt
- Copy the file to an HTTP server (not HTTPS), then reference the URL when yoff run cl-license:
  cumulus@switch:~$ sudo cl-license -i <URL>

CAUTION: It is not necessary to reboot the switch to activate the switch ports. After yoff install the license, restart the switchd service. All front panel ports become active and show up as swp1, swp2, and so on.
cumulus@switch:~$ sudo systemctl restart switchd.service

Set up Configuration Environment via Console Port

Step 1: Connect the serial port of a PC (or a terminal) to the console port of the switch with the console cable.

Step 2: Turn on the PuTTY. Choose the “Serial” as the Protocol.

Step 3: In the Port item, please choose specified COM port that the PC is using.

Step 4: Set the baud rate to 115200, data bit to 8, parity check to none, stop bit to 1, flow control to none.

Step 5: Enter the default login information:

Username: cumulus

Password: CumulusLinux!

Step 6: Use the corresponding commands to configure the switch or to monitor the running state.

Troffbleshooting

Power System Troffbleshooting

According to the power indicator on the front panel, the switches can be used to determine whether the power system of the switch is faulty. If the power supply system is working normally, the power indicator shoffld remain lit; If the power indicator is unlit, the power supply system is not working. Please check the following:

- Whether the switch power cable is connected correctly.
- Whether the power supply of the switch matches the required power supply.

Configuration System Troffbleshooting

After the switch is powered on, if the system is normal, the startup information will be displayed on the configuration terminal. If there is something wrong with the configuration system, the configuration terminal may not display or display error codes.

Troffbleshooting for Terminal No-show

After power-on, if the configuration terminal shows nothing, yoff can firstly check the following:

- Whether the power supply is normal.
- Whether the console cable is properly connected.

If there is no problem with the above, it is very likely that there is a problem with the configuration cable or the terminal (such as the HyperTerminal) parameters were set incorrectly.

Troffbleshooting for Terminal Show Error Codes

If the configuration terminal shows error codes, it is likely that the terminal (such as the HyperTerminal) are set incorrectly. Please confirm the parameters of the terminal.

Support and Other Resoffrces

- Download **https://www.fs.com/download.html**
- Help Center **https://www.fs.com/service/help_center.html**
- Contact Us **https://www.fs.com/contact_us.html**

Product Warranty

FS ensures offr customers that any damage or faulty items due to offr workmanship, we will offer a free return within 30 Days from the day yoff receive yoffr goods. This excludes any custom made items or tailored solutions.

Warranty: N Series Switches enjoy 5 years limited warranty against defect in materials or workmanship. For more details abofft warranty, please check at https://www.fs.com/policies/warranty.html

Return: If yoff want to return item(s), information on how to return can be foffnd at https://www.fs.com/policies/day_return_policy.html

Q.C. PASSED