



NC8200 Series Switch

4-SLOT 2U L3 DATA CENTER SWITCH CHASSIS AND LINE CARDS

Quick Start Guide V1.0

Introduction

Thank you for choosing NC8200-4TD switch chassis and NC8200-8C, NC8200-16Q and NC8200-24BC line cards. This guide is designed to familiarize you with the layout of the switch and describes how to deploy the switch in your network.



NC8200-4TD, NC8200-8C, NC8200-16Q, NC8200-24BC

Accessories



NOTE: NC8200-8C, NC8200-16Q and NC8200-24BC line cards have dust plugs delivered with them. Keep the dust plugs properly and use them to protect idle optical ports.

Hardware Overview

Switch Chassis Front Panel

NC8200-4TD



Parts	Description
Blank Plate	Install a blank panel to the empty slot to prevent dust from entering the switch.

Back Panel



Back Panel Ports



CONSOLE USB CONSOLE

Ports	Description
USB	A USB management port for software and configuration backup and offline software upgrade
MGMT	An Ethernet management port
CONSOLE	An RJ45 console port for serial management
USB CONSOLE	A Mini-USB B serial port for serial management

Back Panel Button

Func



Button	Description	
Func	Reserved function button	

Back Panel LEDs



Status

LEDs	Status	Description
Status	Off	The system is powered off.
	Solid Red	 One of the power supply modules or fan modules fails. Only one fan is in the position. The internal temperature exceeds the threshold, and the switching service resets.
	Blinking Green	The system is initializing.
	Solid Green	The system is operational.
	Solid Yellow	 The temperature exceeds the threshold. Only two fans are in the position. One of the dual power supplies is not connected with AC power cord.
Fan Status	Off	The fan is powered off.
	Solid Green	The fan is operational.
	Solid Red	The fan fails or stops.

LEDs	Status	Description
Power Supply Status	Off	There is no power input or the power supply fails.
	Solid Green	The power input is normal.
	Solid Red	An error occurs, e.g., overcurrent, overvoltage or fan fault.
	Solid Yellow	The AC power in redundancy is plugged out.
	Blinking Red	An alarm is generated but the power module keeps working. The alarm may be caused by high power, high current, high temperature, or low fan rotation speed.
ID	Off	Device location is disabled.
	Solid Blue	Device location is enabled.
MGMT	Off	The port is not connected.
	Green	The port is connected at 1000Mbps.
	Yellow	The port is connected at 10/100Mbps.
	Blinking	The port is transmitting or receiving data.

Line Cards Front Panel Ports

NC8200-8C



QSFP28

Ports	Description
QSFP28	QSFP28 ports for 40/100G connection

NC8200-16Q



QSFP+

Ports	Description
QSFP+	QSFP+ ports for 40G connection



Ports	Description
SFP28	SFP28 ports for 10/25G connection
QSFP28	QSFP28 ports for 40/100G connection

Front Panel LEDs

NC8200-8C



QSFP28

NC8200-16Q



NC8200-24BC



SFP28

LEDs	Status	Description
SFP28	Off	The SFP28 port is NOT connected.
	Solid Green	The SFP28 port is connected at 10/25G.
	Blinking Green	The SFP28 port is transmitting or receiving data at 10/25G.
	Off	The QSFP+ port is NOT connected.
QSFP+	Solid Green	The QSFP+ port is connected at 40G.
	Blinking Green	The QSFP+ port is transmitting or receiving data at 40G.
	Off	The QSFP28 port is NOT connected.
QSFP28	Solid Green	The QSFP28 port is connected at 40/100G.
	Blinking Green	The QSFP28 port is transmitting or receiving data at 40/100G.
	Off	The QSFP28 port is NOT connected.
QSFP28 (4*10G/4*25G)	Solid Green	The QSFP28 port is connected at 10/25G.
	Blinking Green	The QSFP28 port is transmitting or receiving data at 10/25G.
Status	Off	The line card is powered off.
	Solid Red	The line card fails or resets.
	Blinking Green	The line card is initializing.
	Solid Green	The line card is operational.
	Solid Yellow	The temperature exceeds the threshold.



NOTE: When the 100G interface of the module is split into four 10G or 25G interfaces, the four indicators represent the status of the split four ports. Otherwise, only the first of the four lights will light up.

Installation Requirements

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

- Phillips screwdriver.
- Standard-sized, 19" wide rack with a minimum of 2U height available.
- Category 5e or higher RJ45 Ethernet cables, fiber optical cables and console cable for connecting network devices.

Site Environment:

- Do not operate it in an area that exceeds an ambient temperature of 40°C.
- The installation site must be well ventilated. Ensure that there is adequate airflow around the switch.
- The switch should be installed at least 2U (88.9mm) away from devices to its sides.
- Be sure that the switch is level and stable to avoid any hazardous 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.

Mounting the Switch

Rack Mounting



1. Secure the mounting brackets and inner rails to the two sides of the switch chassis with eighteen M4 screws.



2. Attach the slide rails to the rack using four M6 screws and nuts.



3. Align inner rails with the front of the slide rails. Slide the inner rails into the slide rails, keeping the pressure even on both sides.



4. Attach the switch to the rack using four M6 screws and nuts.

Installing the Line Cards



- 1. Take off the blank panel of the line card slot.
- 2. Pinch the captive screws on line card and rotate the ejector lever outward. Push the line card into the slot horizontally.
- 3. Tighten the captive screws with a screwdriver to secure line card in the chassis.



NOTE: Line cards NC8200-8C, NC8200-16Q and NC8200-24BC are not hot swappable. Please make sure to power off the switch before installing or removing line cards.

Replacing the Power Supply Module



1. Press and hold the lock of the power module leftward and pull the module out by the handle.



2. Take the plane printed with power information as the top panel of the power module. Hold the handle of the power module with one hand, and support the bottom with the other hand. Horizontally push the power module into the slot. The power module is completely seated in the slot until a click is heard.

NOTE: 1. Insert the power module steadily. Please pay attention to the direction of the power panel to avoid wrong insertion. If the position is not proper, pull the power supply module out slowly and re-insert it.

2. The power supply modules are factory-installed, please take steps above to replace the modules if necessary.

Replacing the Fan Module



- 1. Loosen the captive screws of the fan module with a screwdriver.
- 2. Hold the handle at the end of the fan module, and withdraw the fan module slowly.



3. Hold the handle at the end of a new fan module. Insert the fan module to the chassis slowly until it is fully seated, and make sure that it is in good contact with the slot.

4. Tighten the captive screws with a screwdriver to fix the fan module in the switch chassis.

NOTE: 1. If the screws cannot be tightened, it is probably because the fan module is not fully inserted. Please check it carefully.

2. The fan modules are factory-installed, please take steps above to replace the modules if necessary.

Grounding the Switch



1. Connect one end of the grounding cable to a proper earth ground, such as the rack in which the switch is mounted.

2. Secure the grounding lug to the grounding point on the switch back panel with the washers and screw.

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 source.

Connecting the SFP28 Ports



First install SFP28 transceivers and then connect fiber optic cables to the transceiver ports, or directly connect DAC cables to the SFP28 slots.

Connecting the QSFP+ Ports



First install QSFP+ transceivers and then connect fiber optic cables to the transceiver ports, or directly connect DAC cables to the QSFP+ slots.

Connecting the QSFP28 Ports



First install QSFP28 transceivers and then connect fiber optic cables to the transceiver ports, or directly connect DAC cables to the QSFP28 slots.



WARNING: Laser beams will cause eye damage. Do not look into bores of transceivers or optical fibers without eye protection.

Connecting the Console Port



- 1. Insert the RJ45 connector into the RJ45 CONSOLE port on the rear of the switch.
- 2. Connect the DB9 female connector 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 rear of the switch.

Connecting the USB Port



Insert the Universal Serial Bus (USB) flash disk to the USB port for software and configuration backup and offline software upgrade.

Configuring the Switch

Configuring the Switch Using the Console Port

- Step 1: Connect a computer to the console port of the switch using the console cable.
- Step 2: Start the terminal simulation software such as HyperTerminal on the computer.
- Step 3: Set the parameters of the HyperTerminal: 9600 bits per second, 8 data bits, no parity, 1 stop bit and no flow control.
- Step 4: After setting the parameters, click Connect to enter.

Quick Connect ×		
Protocol: The port may be Port: Baud rate: Data bits: Parity: Stop bits: Name of pipe:	Serial manually entered or selected from the list. COM3 9600 8 None 1 COM3 COM3 Flow Control COM3 CO	
Show quick c	connect on startup Save session Open in a tab Connect Cancel	

Troubleshooting

Power System Fault

The indicator on the front panel of the host is OFF. The Status indicator of the fan module is OFF, and the fan does not work. The indicator of the power module is OFF.

Please check the following:

First disconnect the power cord of the power module.

- 1. Whether the cables of the cabinet have been correctly connected.
- 2. Whether the cabinet power sockets are loosely connected to power modules.
- 3. Whether the power modules are installed correctly.

The Fan Does Not Work

After the system starts, the fan does not work or the Status indicator is OFF.

Please check the following:

Check if the connection between the fan module and the backplane is secure and if the connector gets loose. If the connection is secure, you need to replace the fan module.

Serial Port Console Has No Output or Outputs Illegible Characters

 Check whether serial port cable is connected correctly, whether serial port cable is disconnected, and whether the connected serial port is identical with that configured on the HyperTerminal.
 Check that the parameter configuration of the serial port matches that specified in the instructions.

Support and Other Resources

- 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 our customers that any damage or faulty items due to our workmanship, we will offer a free return within 30 Days from the day you receive your goods. This excludes any custom made items or tailored solutions.



Warranty: NC8200-4TD switch chassis and NC8200-8C, NC8200-16Q and NC8200-24BC line cards enjoy 5 years limited warranty against defects in materials or workmanship. For more details about warranty, please check at https://www.fs.com/policies/warranty.html



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

Q.C. PASSED