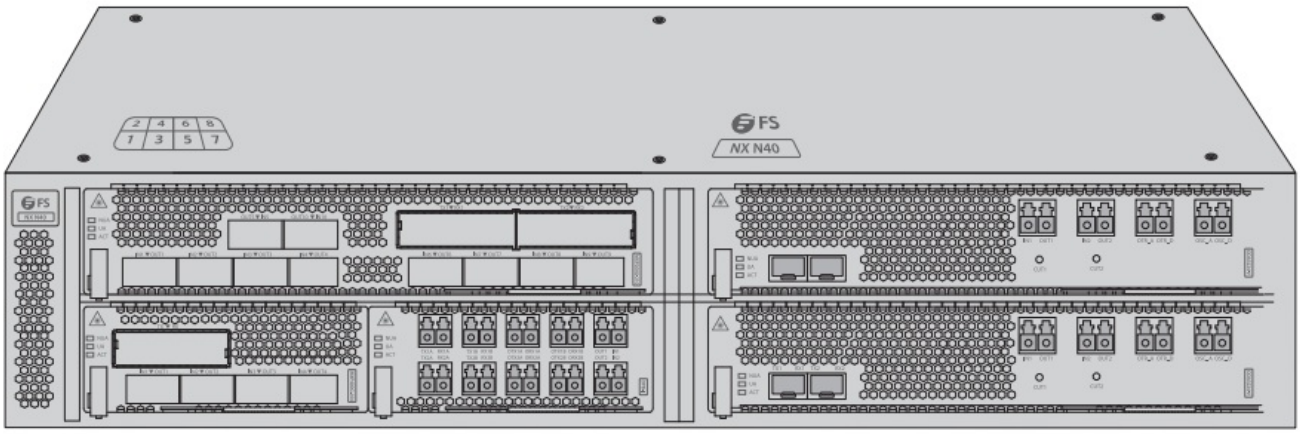
FS NX N40 Series 8 Slot 2 Stackable DCI Platform User Guide

Contents

FS

FS NX N40 Series 8 Slot 2 Stackable DCI Platform

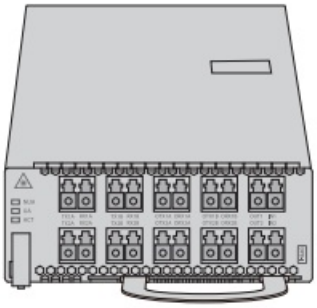
Introduction



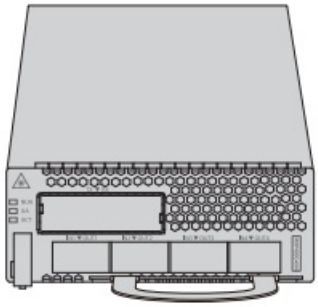
NX N40 Series DCI Platform provides a managed, flexible and scalable architecture for fiber networks. It can support ODA, OPB and MXP to construct a multi-service optical transmission network platform.

NX N40 Series Platform Overview

NX N40 Series Infrastructure Cards

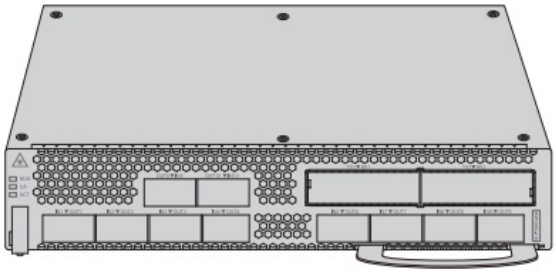


OPB-I

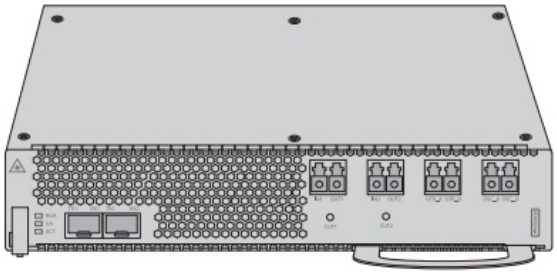


MXP400G-104

1. Slot Card Type



MXP200G-210

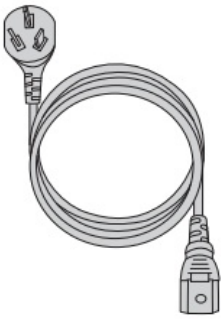


ODA3224-V

2. Slot Card Type

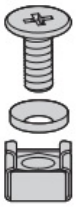
NOTE: 1. NX N40 Series DCI cards are designed as 1-slot card type or 2-slot card type to match the managed chassis. 2.1-slot card: OPB-, MXP400G-104;2-slot card: ODA3224-V, MXP200G-210.

Accessories

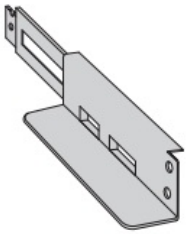


Power Cord x2

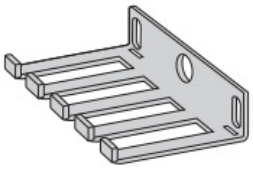
Grounding Cable x1



M6 Screws&Nuts x10



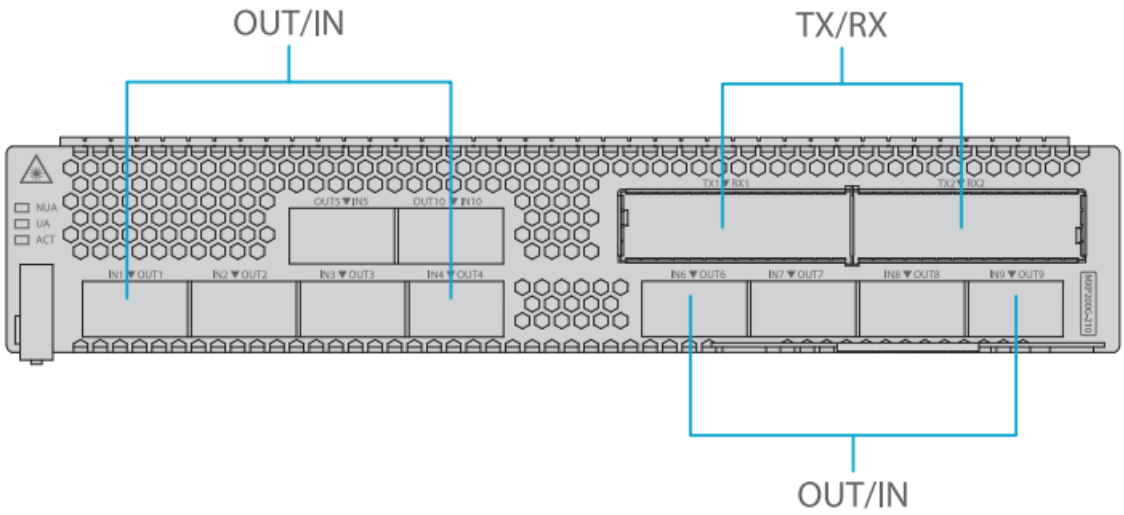
Bracket x2



Cable Manager x2

Hardware Overview

MXP200G-210



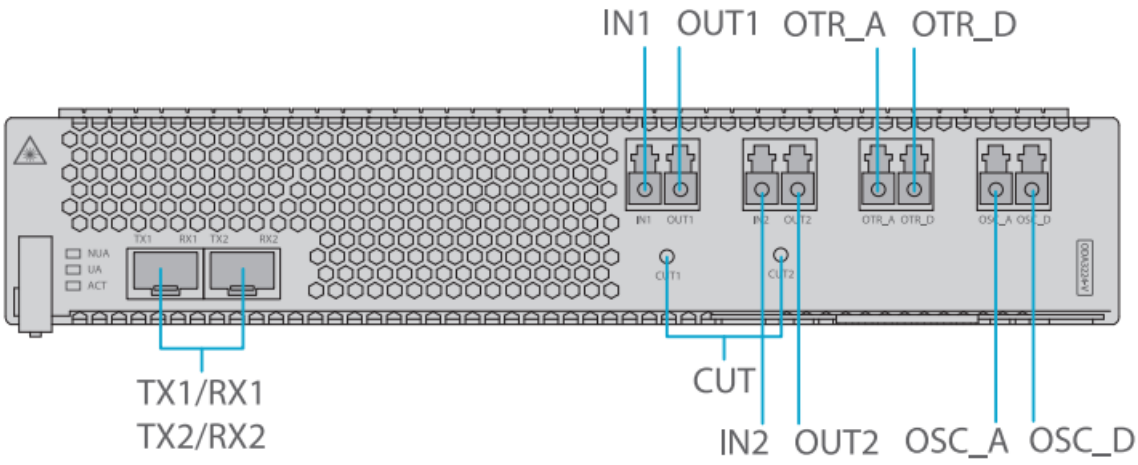
Front Panel Port

OUT	Client-side optical interfaces	Transmit service signals to the client equipment.
IN	Client-side optical interfaces	Receive service signals from the client equipment.
TX	WDM-side optical interfaces	Transmit wavelength-specific optical signals to the optical multi plexer card.
RX	WDM-side optical interfaces	Receive wavelength-specific optical signals from the optical de multiplexer card.

Front Panel LED

ACT	Blinking quickly	The card is activated.
	Blinking slowly	The card is deactivated .
	ON	The card is working abnormally. Usually, the communication between t he card and the EMS is poor.
	OFF	The card is working abnormally. Usually, the card is faulty.
UA	ON	An urgent alarm occurs on the card.
	OFF	No urgent alarm is reported or all urgent alarms are blocked.
NUA	ON	A non-urgent alarm occurs on the card.
	OFF	No non-urgent alarm is reported or all non-urgent alarms are blocked.

ODA3224-V



Front Panel Port

IN1	Input port for the optical path	Input optical port for optical signal channel 1.
OUT1	Output port for the optical path	Output optical port for optical signal channel 1.
IN2	Input port for the optical path	Input optical port for optical signal channel 2.
OUT2	Output port for the optical path	Output optical port for optical signal channel 2.
OTR_A	Monitoring port for input Signals	Add port for the in-service test of external OTDR optical si gnals.
OTR_D	Monitoring port for output Signals	Drop port for the in-service test of external OTDR optical signals.
OSC_A	Monitoring port for input Signals	Add port for in-service tests of OSC optical signals; conne cted toTX1.
OSC_D	Monitoring port for output Signals	Drop port for in-service tests of OSC optical signals; conn ected to RX1.

TX2	Output port for optical signals	Outputs OSC optical signals.
RX2	Input port for optical signals	Inputs OSC optical signals.
TX1	Output port for optical signals	Output OSC optical signals, connected to OSC_A.
RX1	Input port for optical signals	Input OSC optical signals, connected to OSC_D.
CUT	Laser shutdown button	Pressing the button will turn off the card’s laser; releasing the button will turn on the laser.

Front Panel LED

ACT	Blinking quickly	The card is activated.
	Blinking slowly	The card is deactivated.
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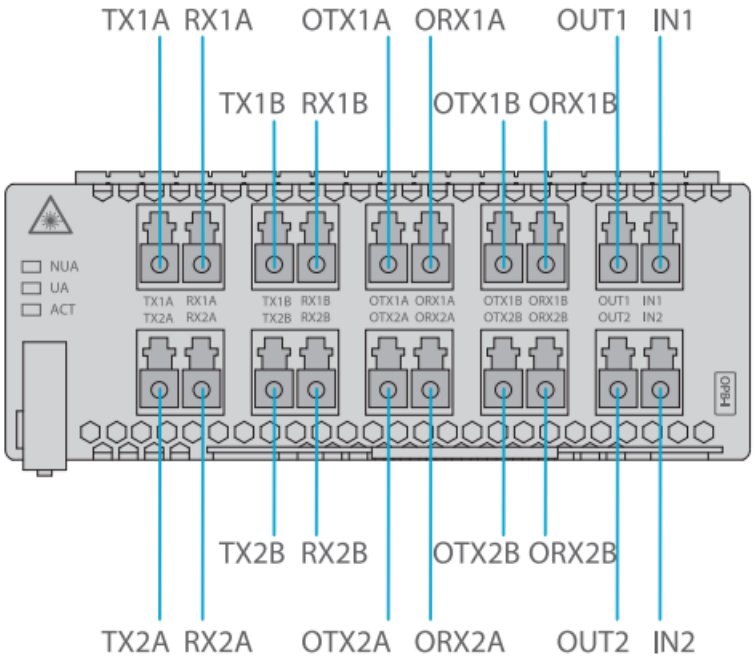
	OFF	The card is working abnormally. Usually, the card is faulty .
UA	ON	An urgent alarm occurs on the card.
	OFF	No urgent alarm is reported or all urgent alarms are blocked.
NUA	ON	A non-urgent alarm occurs on the card.
	OFF	No non-urgent alarm is reported or all non-urgent alarms are blocked .

OPB-I



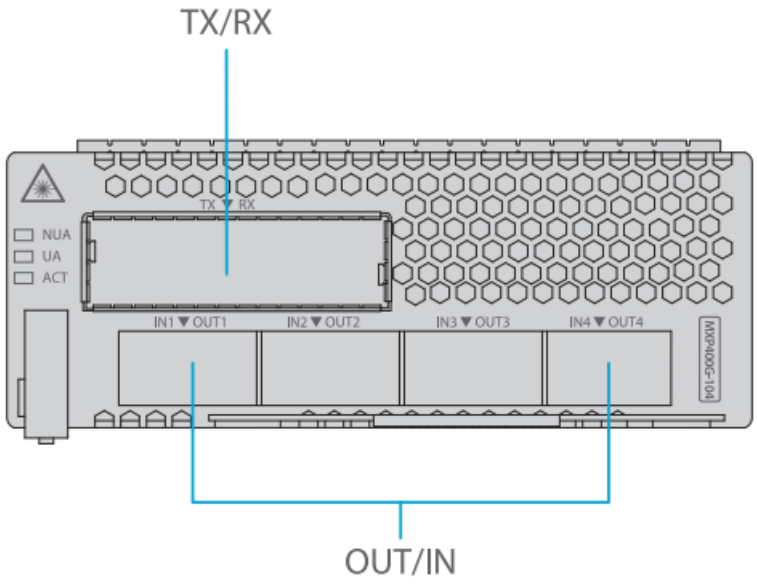
Front Panel Port

TX1A	Tx interface for working signals	Transmit the 1st group working signals.
RX1A	Rx interface for working signals	Receive the 1st group working signals.
TX1B	Tx interface for protection signals	Transmit the 1st group protection signals.
RX1B	Rx interface for protection signals	Receive the 1st group protection signals.
TX2A	Tx interface for working signals	Transmit the 2nd group working signals.
RX2A	Rx interface for working signals	Receive the 2nd group working signals.
TX2B	Tx interface for protection signals	Transmit the 2nd group protection signals.
RX2B	Rx interface for protection signals	Receive the 2nd group protection signals.
OTX1A	Tx interface for OTDR signals	Indicate the OTDR optical interface for transmitting the 1st group working signals.
ORX1A	Rx interface for OTDR signals	Indicate the OTDR optical interface for receiving the 1st gr oup working signals.
OTX1B	Tx interface for OTDR signals	Indicate the OTDR optical interface for transmitting the 1st group protection signals.
ORX1B	Rx interface for OTDR signals	Indicate the OTDR optical interface for receiving the 1st gr oup protection signals.
OTX2A	Tx interface for OTDR signals	Indicate the OTDR optical interface for transmitting the 2n d group working signals.
ORX2A	Rx interface for OTDR signals	Indicate the OTDR optical interface for receiving the 2nd g roup working signals.
OTX2B	Tx interface for OTDR signals	Indicate the OTDR optical interface for transmitting the 2n d group protection signals.
ORX2B	Rx interface for OTDR signals	Indicate the OTDR optical interface for receiving the 2nd g roup protection signals.
INI	Input interface for to -be-protected sign als	Input to-be-protected optical signals.
OUTI	Alternative signal output interface	Output optical signals .
IN2	Input interface for to-be-protected sign als	Input to-be-protected optical signals.
OUT2	Alternative signal output interface	Output optical signals.

Front Panel LED

ACT	Blinking quickly	The card is activated.
	Blinking slowly	The card is deactivated.
	ON	The card is working abnormally. Usually, the communication between t he card and the EMS is poor.
	OFF	The card is working abnormally. Usually, the card is faulty.
UA	ON	An urgent alarm (critical or major alarm)occurs on the card.
	OFF	No urgent alarm is reported or all urgent alarms are blocked.
NUA	ON	A non-urgent alarm occurs on the card.
	OFF	No non-urgent alarm is reported or all non-urgent alarms are blocked.

MXP400G-104



Front Panel Port

OUT	Client-side optical port	Transmit service signals to the client equipment.
IN	Client-side optical port	Receive service signals from the client equipment.
TX	WDM-side optical port	Transmit wavelength-specific optical signals to the optical multi plexer card.
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NUA	ON	A non-urgent alarm occurs on the card.
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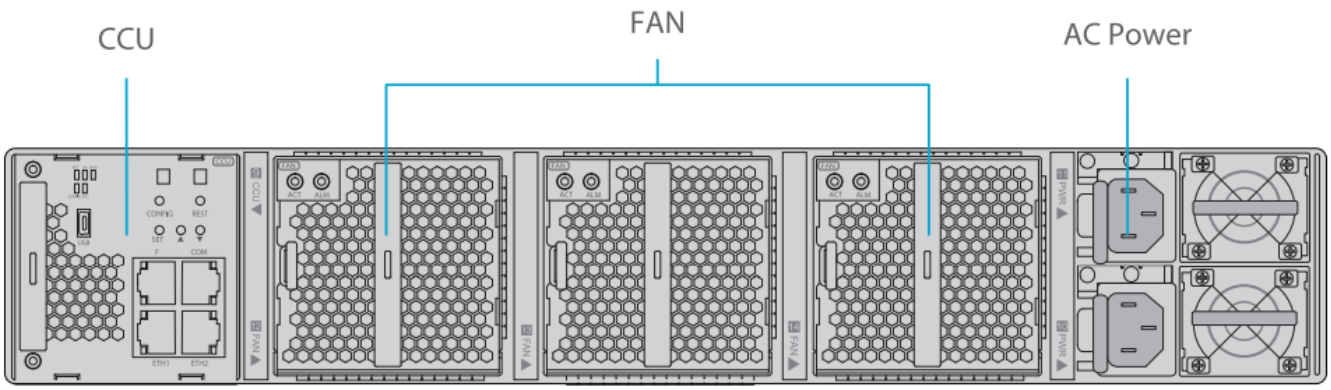
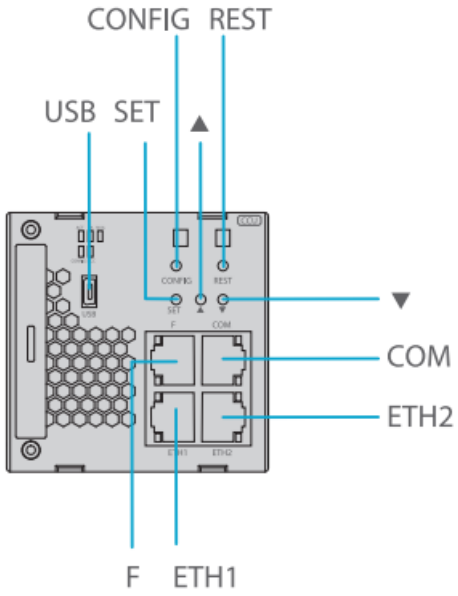
Managed Chassis



CCU	Management plane&Electromechanical management function.
Fan	Heat Dissipation function.
AC Power	AC power supply.

CCU



Front Panel Port

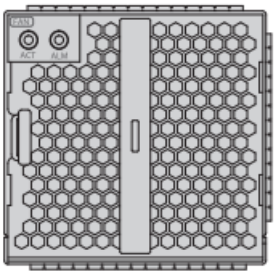
CONFIG	Reserved button	Reserved.
USB	USB port	Back up cards' logs, back up and upload system software, and quickly provision services through a U disk .
REST	Reset button	Pressing the button will reset the card.
SET	Reserved button	Reserved.
	LED digitron adjustment button	Manually adjust the LED digitron. Press this button, and t he number is incremented by 1 (original function). After sy stem upgrade, the CCU card reads the current subrack address through the intra-card signal and displays the ad dress on the panel. In this case, this button is invalid.
T	LED digitron adjustment button	Manually adjust the LED digitron. Press this button, and t he number is decreased by 1 (original function). After syst em upgrade, this card reads the current subrack address t hrough the intra-card signal and displays the address on t he panel. In this case, this button is invalid.
F	EMS supervisory port	When the front subrack serves as a master suback, this in terface enables communication between the equipment a nd the EMS and helps establish a supervisory channel.W hen the front subrack serves as a slave subrack, this inter face is invalid.
COM	Software debugging port	Used for card debugging.
ETH1	Master-slave subrack cascading port	Cascade the master and slave subracks. An ETHl port should be connected to an ETHl port, and a n ETH2 port should be connected to an ETH2 port. It is in valid to connect an "ETH1" port to an "ETH2″port.
ETH2		

NOTE: LED digitron is displayed in two "8-bit's. For example, 01, 02, or 03-99. These numbers identify the subracks, substituting paper labels.

Front Panel LED

ACT	ON	The card is activated.
NUA	ON	A non-urgent alarm is reported for the card.
	OFF	No non-urgent alarm is reported or all non-urgent alarms are blocked .
DCC	Blinking	Datas are being received or transmitted in the corresponding DCC.

FAN



ACT	ON	The power supply is connected.
	OFF	The power supply is not well connected.
ALM	ON	The fan unit is faulty.

Site Environment

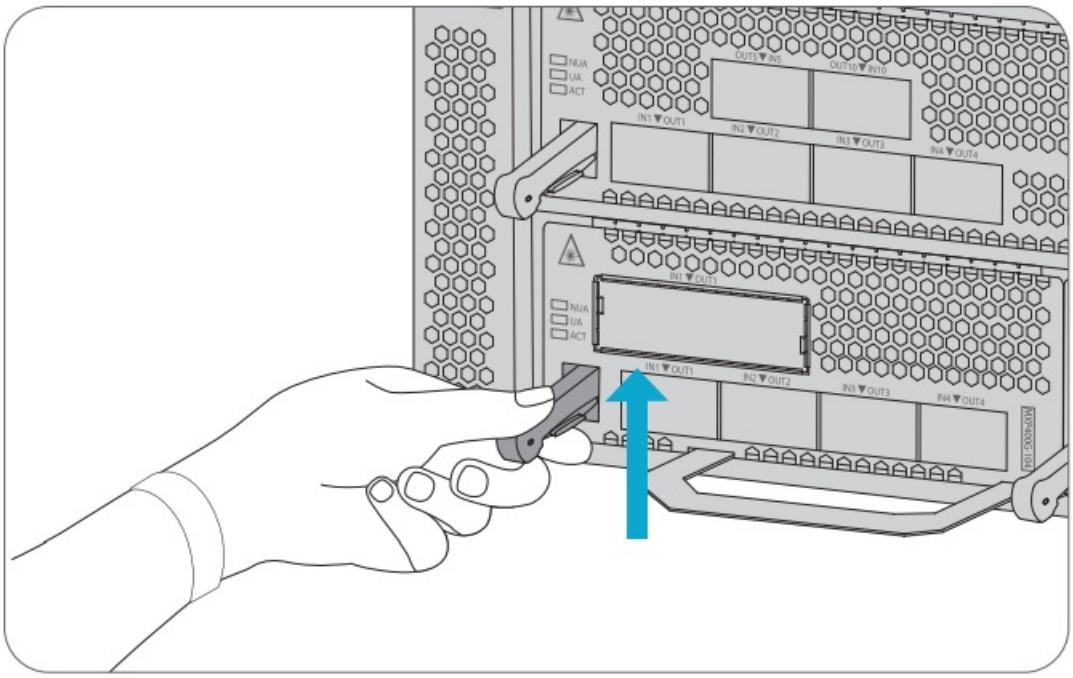
- Keep the enquipments indoors. If it is in rainy season or in humid environment, dehumidification measures must be taken.
- Ensure there is no water on the storage floor and no leakage to the packing box of the equipment.
- Avoid automatic fire fighting facilities, heating system and other places where leakage may occur.

Installing

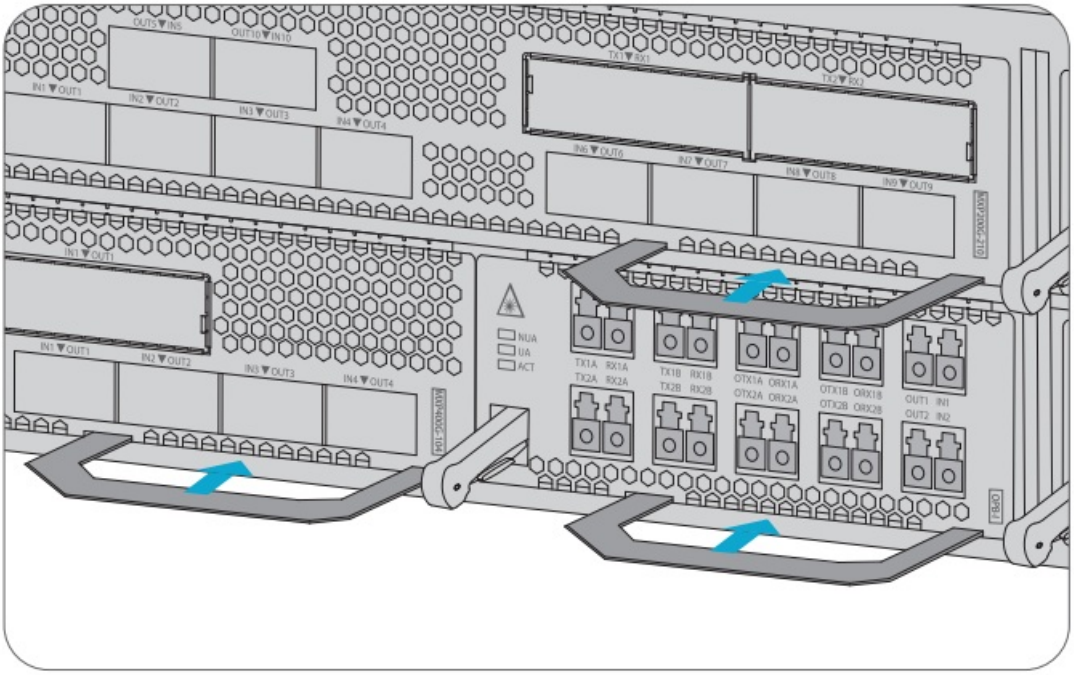
Before installation, make sure that you have the followings:

- M6 Screws&Nuts
- Flat Screwdriver
- Cross Screwdriver

Installing a Card

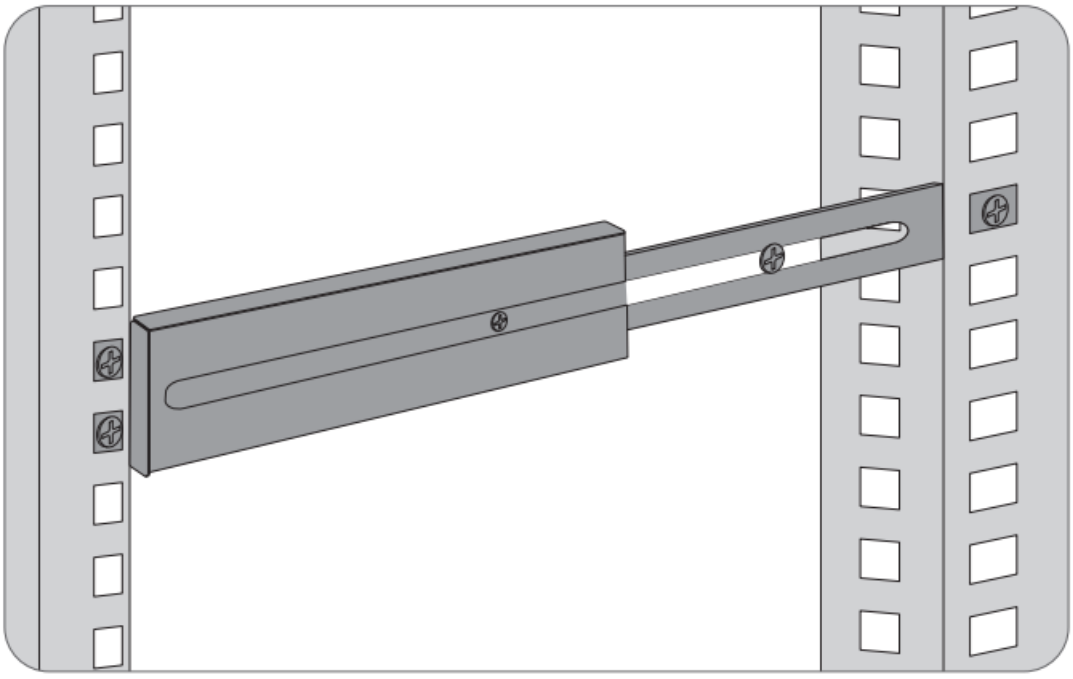


1. Hold the card handle and align the left and right edges of the card with the internal slide rails.

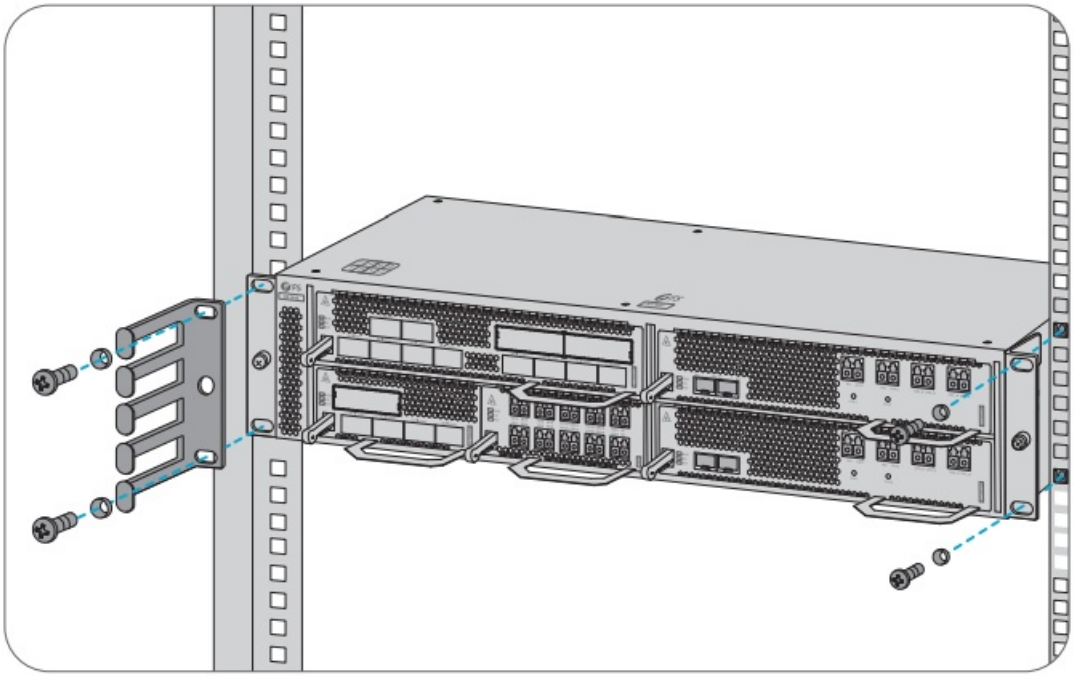


2. Push it in slowly along the internal slide rails until a “click” is heard, which indicates that the latch is locked.

Rack Mounting



1. Install the slide rails on the rack.

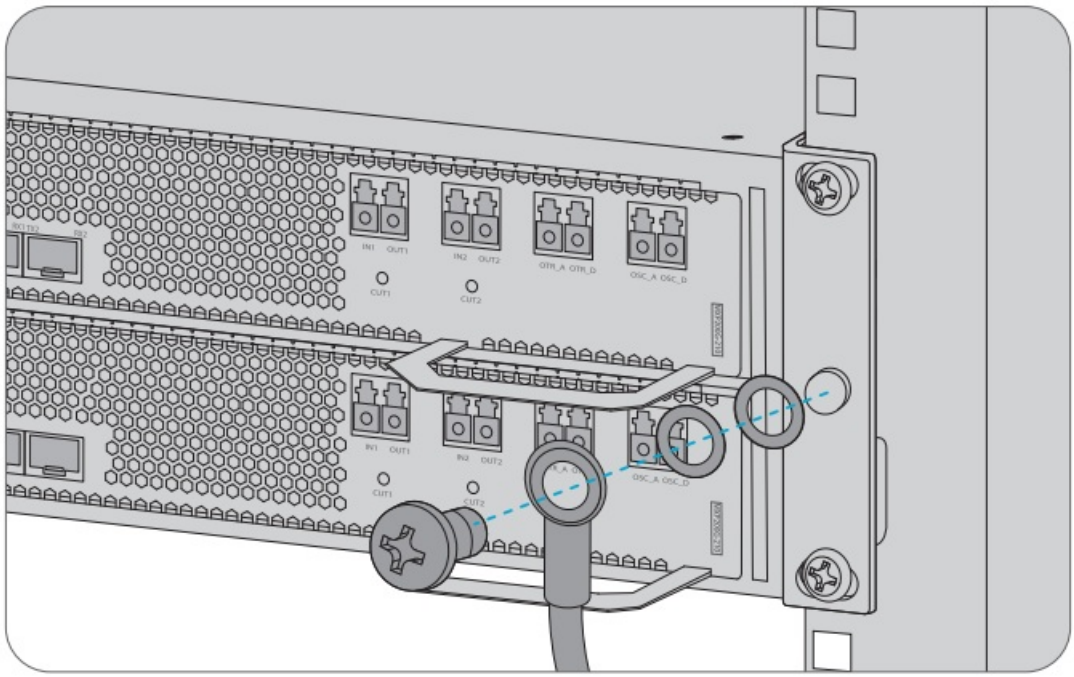


2. Push the NX N40 series managed chassis into the rack along the slide rails.
3. Use M6 screws&nuts to secure the chassis.

NOTE:

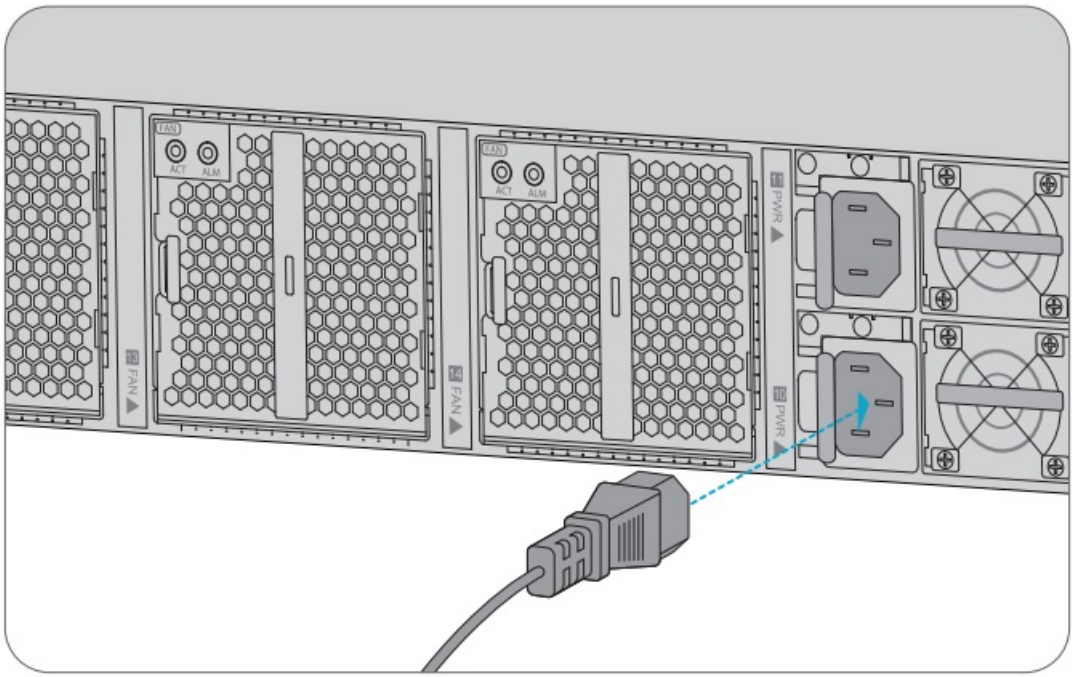
1. The chassis to be mounted in the rack should be empty.
2. Avoid collision or touching the fiber guide unit when carrying the chassis.
3. The mounted chassis should be 130 mm away from the rack door before it.

Grounding the NX N40 Series Managed Chassis



1. Secure the grounding lug to the grounding point on the back panel of the chassis with screws and nut.
2. Connect the other end of the cable to a proper earth ground point, such as the rack with the NX N40 series.

Connecting Power Cord



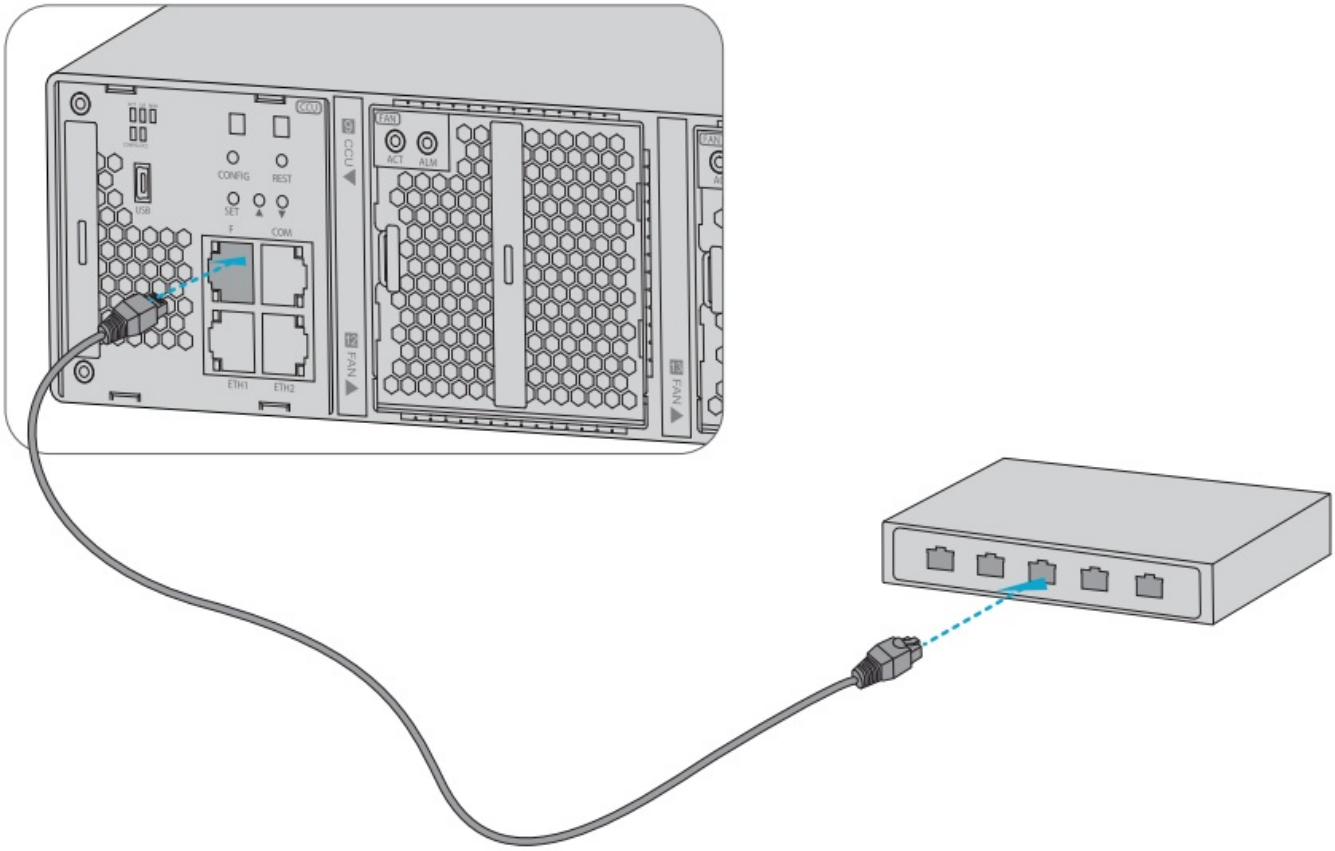
1. Plug AC power cord into the power port on the back panel of the power card.
2. Connect the other end of the power cord to an AC power source.

NOTE:

1. Avoid the hybrid use of power cords from different vendors.
2. Before connecting the chassis power cables, ensure that the external power supply is shut down. Never install the power cables while they are electrified.
3. Make sure that the AC input power is cut off during the operation. Attach labels to the switches that will be

used.

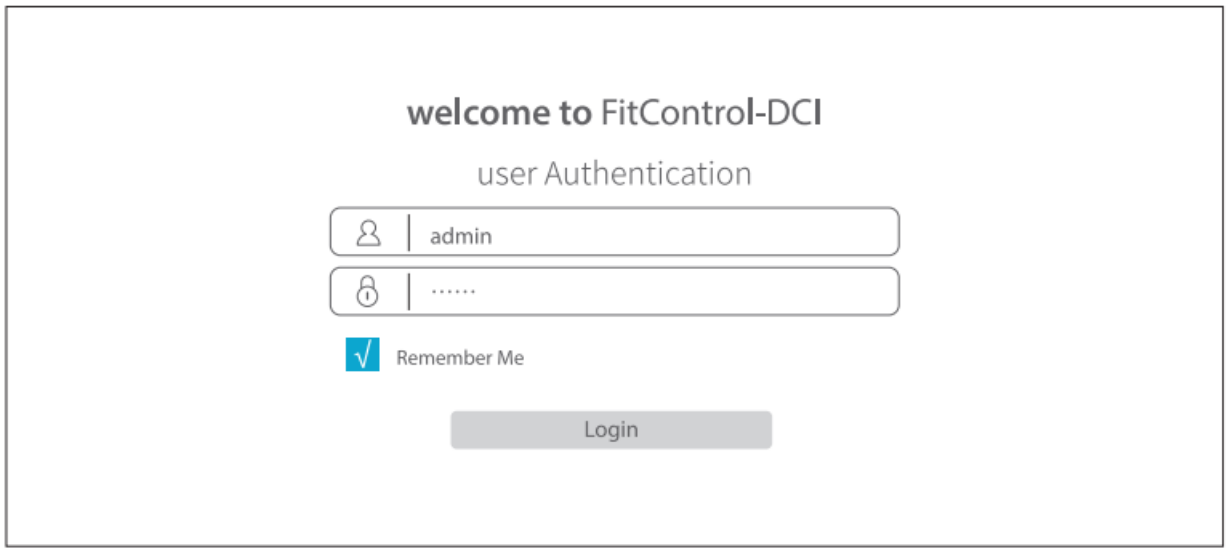
Connecting the Control Port



1. Connect one end of the cable to the console port on the back panel.
2. Connect the other end to a network port on the switch.

Configuring the NX N40 Series Platform

1. Step 1: Install the netmanager software and refer to the Configuration Guide for detailed steps.
2. Step 2: Enter the URL (Built-in IP address+8082/#/login. e.g. **http://10.41.87.205:8082/#/login**) on the web page to log in to the net manager software (Account: admin; Password: admin).



3. Step 3: Click login, you are now ready to configure NX N40 Series Platform.

Troubleshooting

Card LEDs Working Abnormally

1. Check the power cable connections at the NX N40 Series managed chassis and the power source.
2. Make sure that all cables are used correctly and comply with the power specifications.
3. Make sure that service cards are in the right position in the NX N40 Series managed chassis.

Accessing the Web-based Configuration Page Unsuccessfully

1. Try another port on the CCU card and make sure the Ethernet cable is suitable and works properly.
2. Power off the the NX N40 Series managed chassis and wait for a while, then power it on again.
3. Make sure the built-in IP address is correctly configured.
4. If you still cannot access the configuration page, please reinitialize the CCU server to its factory defaults.

Service Card Cannot Be Added

1. Enter through CMD.
2. Ping service card IP to check whether it can communicate.
3. Check whether normal communication can be made between service card and the CCU card.
4. Change another service card.

Online Resources

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

Product Warranty

- Warranty: This product enjoys 2 years limited warranty against defect 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**

Documents / Resources

	FS NX N40 Series 8 Slot 2 Stackable DCI Platform [pdf] User Guide NX N40 Series, 8 Slot 2 Stackable DCI Platform

References

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- Quality Certification - FS.com
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- Contact Us - FS.com
- Kontakt - FS.com Deutschland
- Rückgaberecht - FS.com Deutschland
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