

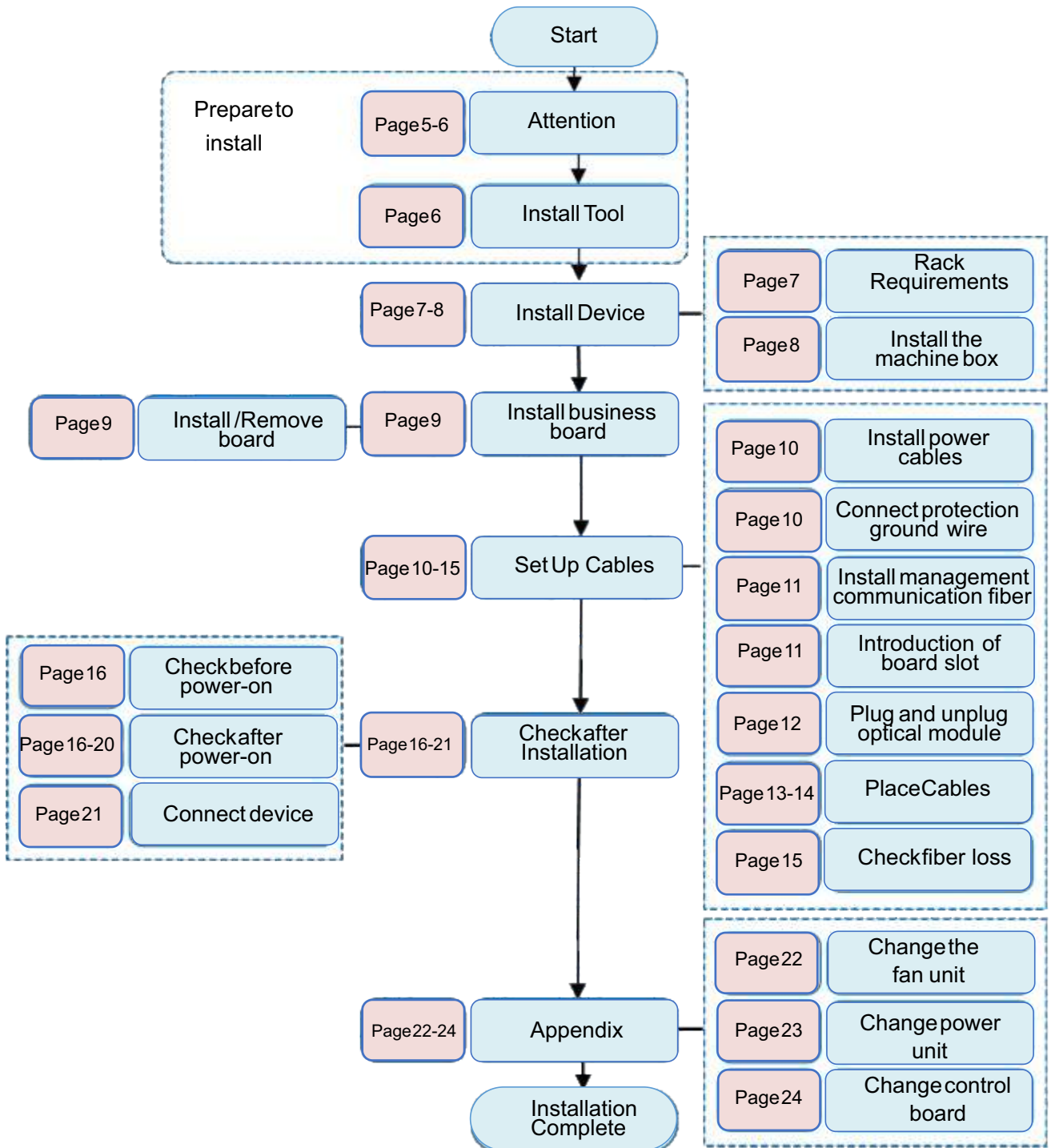


NS-DWDM-OP01-DCI-AC Stackable over 100G wave division transmission platform Quick Installation Guide

Document version : 01

Date : 2022-09-01

The installation process



NS-DWDM-OP01-DCI-AC Device Introduction

With the rapid development of industry communication, the demand for long distance and large capacity bandwidth increases rapidly. In order to adapt to the new load bearing requirements, for data center interconnection (DCI) optoelectronic integrated wave division transmission equipment -- NS-DWDM-OP01-DCI-AC. The device is mainly located in the MAN, including the metropolitan core layer, the convergence layer, and the metropolitan access layer. It can meet the rapidly growing bandwidth demand between DCS, realize the flexible deployment of devices, create an open optical network architecture, and lead the DCI market into a new era of high-speed all-optical interconnection.

Product Appearance



Product Features

- Photoelectric integrated, pluggable modular design; Components are hot-swappable, deployed on demand, and expanded on demand.
- The heat dissipation design adopts the forward air and rear air exhaust, and provides 1+1 FRU fan units, support automatic speed regulation.
- The 19-inch standard rack fits into the data center equipment room and can be deployed in the same cabinet with IT devices.
- Each pair of optical fiber transmission capacity can reach 25.6 Tbit/s @ 400 g * 64 + C band lambda, each sub-rack the highest 1.6 Tbit/s.
- Single-wave capacity is 400 g, 600 g & 800 g & 1.2 T continued evolution.
- The optical laminates are highly integrated with functions such as OA, WSS, VOA, OSC, OTDR, OCM, and OLP to simplify the internal optical fiber connection.
- Supports 10GE, 100GE, 100GE FlexE(Unaware mode), STM-64, 10GE WAN, OTU2, and OTU4 services.
- Supports 9-D ROADM networking and Flexible Grid.
- Support business layer, OTN layer, optical layer comprehensive performance monitoring, quality visible.
- Provides multiple network - and device-level protection solutions. The protection switchover delay is less than 50ms, ensuring superior protection performance
- Support NETCONF/YANG standard open interface and GUI management platform based on B/S architecture.

Product specification



Parameter		Instructions
Rack	Size	2U:44mm(H)x444mm(W)x490mm(D)
	Maximum Capacity	1.6Tbit/s
	Number of business slots	4
	Apply cabinet	19' cabinet, 800mm depth or above
Ports of line side	Speed	<ul style="list-style-type: none"> ✦ 200G (PDM_QPSK) ✦ 200G (PDM_8QAM) ✦ 200G (PDM_16QAM) ✦ 400G (PDM_16QAM)
	Optical module	Pluggable CFP2、adjustable wave length
Ports of client side	Business type	10GE、100GE OTU2、OTU4 STM-64、10GE WAN
	Optical module	<ul style="list-style-type: none"> ✦ pluggable SFP+ ✦ pluggable QSFP28
Maximum number of wavelengths		Fixed grid: 96 waves@50 GHz
Channel spacing		Flexible grid: 50 GHz/75 GHz/100 GHz/150 GHz
Center frequency range		191.35 GHz ~ 196.1 GHz
Central wavelength range		1528.77 nm ~ 1566.73 nm
Protection function		<ul style="list-style-type: none"> ✦ Optical line protection (OLP) ✦ Optical wdm section protection (OMSP) ✦ Optical channel protection (OCHP)
Network management		<ul style="list-style-type: none"> ✦ Supports hot swap of the main control board ✦ Supports CLI, NETCONF, and GUI management platforms based on B/S architecture ✦ Supports OSC-based DCN communication
Power supply	Back up	Standard CRPS power supply 1+1 backup
	AC	<ul style="list-style-type: none"> ✦ Rated voltage range: <ul style="list-style-type: none"> – 100 V AC~130 V AC (50/60Hz) – 200 V AC~240 V AC (50/60Hz) ✦ Maximum voltage range: 90 V AC~264 V AC (45Hz~65Hz)

Attention

	High voltage direct current	<ul style="list-style-type: none"> ⊕ Rated voltage range: 240 V HVDC ⊕ Maximum voltage range: 192 V HVDC~288 V HVDC
	DC	<ul style="list-style-type: none"> ⊕ Rated voltage range: -48 V DC/-60 V DC ⊕ Maximum voltage range: -40 V DC~-72 V DC
Heat dissipation		<ul style="list-style-type: none"> ⊕ After the forward wind comes the wind ⊕ 1+1 Fan Board Backup
Typical power consumption		<550W (fully equip)
Environment	Working temperature	<ul style="list-style-type: none"> ⊕ short term: -5°C~+45°C ⊕ long term: 0°C~40°C
	Storage temperature	-40°C~+70°C
	Humidity	5%~95% (No condensation)

1.1 Safety Precautions

■ To ensure the safety of the human body and the device, follow the labels on the device and the safety precautions in this document when installing, operating, and maintaining the device. The items such as

" Danger" and " Caution" in this manual do not represent all the safety precautions to be followed. They are only supplements to the safety precautions.

■ During the operation of our company's equipment, we must strictly follow the relevant equipment precautions and special safety instructions provided by NewNets. The "safety warnings" listed in the manual only reflect the requirements of Newnets, not the general safety requirements. NewNets, LLC does not assume any responsibility for any loss caused by the violation of the general safe operation requirements or the violation of the design, production and use of equipment safety standards.

Instructions

Intended Audience This document provides a quick and concise guide for hardware installation.

This document does not describe the installation operations performed before delivery. It only describes the operations involved in onsite installation.

Attention

Electrostatic

To prevent the static electricity of the human body from damaging the sensitive components, wear ESD gloves or an ESD wrist strap and ground the other end of the ESD wrist strap well before touching the device or holding the board, board, or IC chip.

Binding wire

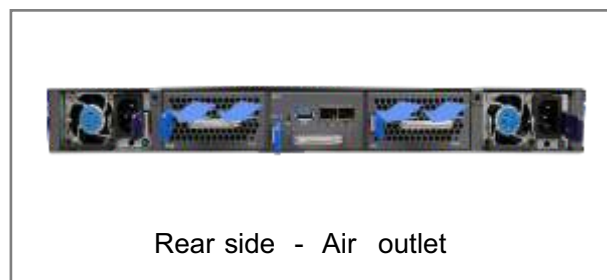
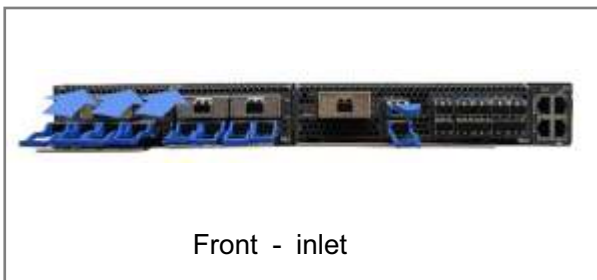
- The interval between cable ties and optical fiber bundling tapes inside cabinets should not exceed 250mm. (The interval between binding cable ties inside the cabinet should not exceed 200mm.)
- Outside the cabinet, bind all cables and corrugated pipes based on the distance between two beams. For cable troughs without beams, bind cables with a distance of not more than 250mm.

Check before installation

- Before installing a device, check the equipment room, cabinet, power supply, ground cable, optical cable, and supporting facilities. After the construction conditions are determined, the construction shall be carried out according to the engineering design documents.
- When installing and maintaining the NS-DWDM-OP01-DCI-AC, take ESD measures, such as wearing an ESD wrist strap or ESD gloves.
- When transporting, moving, or installing the NS-DWDM-OP01-DCI-AC, avoid collision with doors, walls, or shelves. Do not touch parts or unpainted metal surfaces with sweaty or dirty gloves.
- Do not pile up sundry on the equipment.

Attention

NS-DWDM-OP01-DCI-AC device has it's own fan. The air inlet is in the front, and the air outlet is in the back. Ensure that the air inlet and air outlet are not blocked by optical fibers or paper etc.



matters need attention

1.2 Installation Environment Requirements

- Do not place the device in an environment with flammable or explosive gas or smoke, and do not perform any operations in such an environment.
- The device must be installed in a clean, dry, well-ventilated, and temperature-controlled place. Water seepage, dripping and condensation are strictly prohibited in the installation site.
- Dust proof measures should be taken in the installation site. Indoor dust on devices causes electrostatic adsorption and poor contact between metal connectors or metal contacts. This not only affects the service life of devices but also easily causes device faults.
- Ensure the installation of ambient air circulation,do not plug the heat dissipation holes of the NS-DWDM-OP01-DCI-AC device. Leave more than 50mm space around the device for heat dissipation.
- The temperature and humidity at the installation site must be within the normal operating temperature range (-5 ° C to 45 ° C (typical) (0m to 1800m), altitude range (1800m to 5000m), and humidity range (5%-95% RH without condensation).

Installation Tools

2.1 Device Installation Tool

 Phillips screwdriver	 Flat-head screwdriver	 multimeter	 wire crimper	 bolt clipper
 wire stripper	 cable clamp	 Install the gloves	 antistatic	 Esd wrist strap
 ladder	 Optical fiber Velcro	 Electrical insulation tape	 network tester	 optical power meter

Device Installation

3.1 Rack requirements

- NS-DWDM-OP01-DCI-AC width of the device complies with industry standards and can be installed in the IEC 19-inch standard cabinet.
- NS-DWDM-OP01-DCI-AC cabinet depth must be at least 800mm.
- cabinet at the front of the linear space for not less than 120 mm, can appear otherwise cable his problem.
- A tray is installed in the cabinet.
- For a 19-inch cabinet, ensure that there is at least 75mm of space on both sides to prevent the air inlet and outlet from being blocked
- The porosity of the cabinet door is greater than 50%, which meets the heat dissipation requirements of the device.
- The cabinet has reserved ground terminals that connect to devices.
- If the upper cabling mode is used, reserve an outlet on the top of the cabinet. If underfloor cabling is used, reserve an outlet at the bottom of the cabinet.

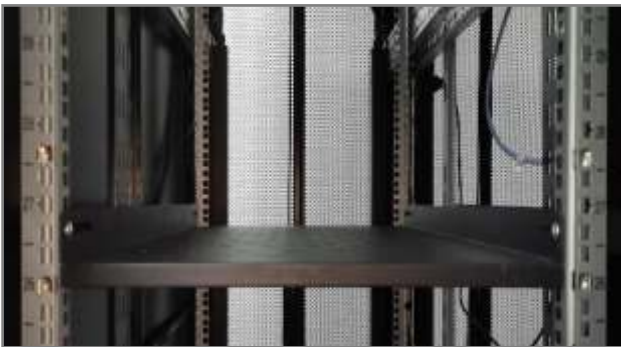


NS-DWDM-OP01-DCI-AC

Device Installation

3.2 Install the machine box

① Determine the installation position of the device.



② Place the NS-DWDM-OP01-DCI-AC device on the cabinet tray.



③ Slowly push the mounting ears into the device so that the mounting ears on the panel align with the floating nuts on the mounting bar of the cabinet.



④ Fix the panel mounting ears to the floating nuts on the mounting bar of the cabinet using a screwdriver knob screw.



Install business board

4.1 Install/Remove board



- ✘ Removing a running board may affect the normal running of the device and interrupt services.
- ✘ If the boards are not installed, place them in ESD bags and mark them.
- ✘ When inserting a board, ensure that the board connector is aligned with the backplane socket.
- ✘ If the board fails to be inserted, do not forcibly insert the board. Check the position of the board before reinserting the board.



Removing the Filler Panel

Loosen the captive screws on the filler panel counterclockwise. Hold the upper and lower ends of the filler panel with both hands and pull the filler panel out along the guide rails in the slot.



Install the board

Hold the buckle parallel to the board panel, align the board with the guide slot, and push the board into the slot with appropriate force until it is fully inserted.



Remove the board

Pull the buckle perpendicular to the board panel and pull the board out along the guide rails with moderate force.

Attention

Filler panels must be inserted into the empty slots of the chassis to prevent foreign objects from entering the chassis and causing faults.

Set Up Cables

5.1 Install Power Cable

Instructions

The actual delivered power cables comply with the local standards. The following uses the Chinese standard C13 straight female to PI straight male AC power cables as an example

High voltage DC and AC

1.High voltage (240V) DC power supply and AC power supply use the same power cable.

2.Power cables must be installed for both power ports.

Low voltage DC

1.The low-voltage DC power cable connects to the positive DC terminal (0V) in brown and the negative DC terminal (-48V) in blue.



Danger

※ Turn off the power when connecting or pulling out the power cable.



Ac Power cable Appearance



Appearance of DC Power Cables



Ac power port 1

Ac power port 2

5.2 Connect protection ground wire

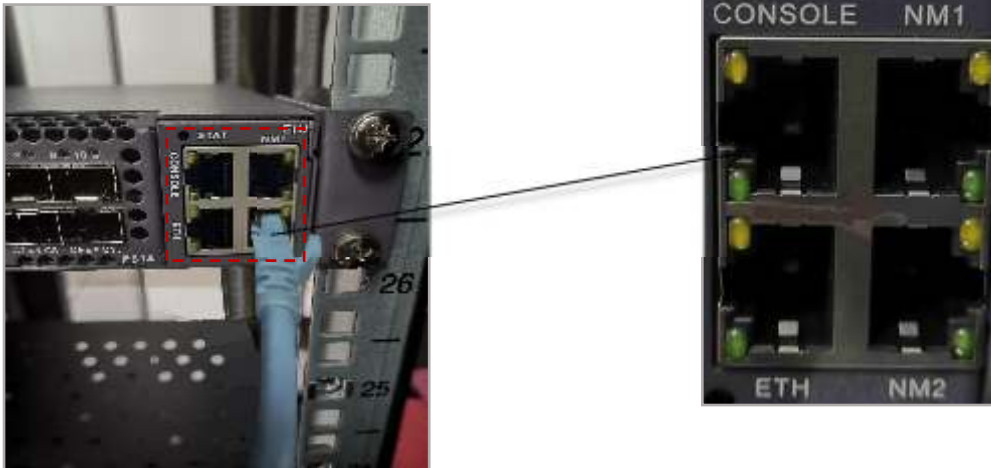
- ① Wear an ESD wrist strap or ESD gloves. If you wear an ESD wrist strap, ensure that one end of the wrist strap is grounded and the other end is in good contact with the wearer's skin.
- ② Remove the ground screw from the ground point of the device using a Phillips screwdriver.
- ③ Install the ground screw and ground cable to the ground point of the NS-DWDM-OP01-DCI-AC using a Phillips screwdriver.



Note: One end of the PGND cable connects to the device ground point and the other end connects to the cabinet ground point.

Place cables

5.3 Install management communication fiber



Main control board

instruction :

- 1、ETH: Ports reserved for the master and slave subroutines are cascaded.
- 2、NM1/NM2: Device management communication port.
- 3、CONSOLE: Field debugging configuration port.

5.4 Introduction of board slot

NS-DWDM-OP01-DCI-AC have 10 slots in total, NS-DWDM-OP01-DCI-AC business slots are 1 ~ 4.

NS-DWDM-OP01-DCI-AC Front slot diagram:



OTNS8600-DCI4 Back slot diagram:



OTNS8600-DCI4 adopts the horizontal board structure and provides 10 board slots.

- ✘ Slots 1 to 4 are pluggable discharge layer boards and optical layer boards: P616、P514、P524、P512、OTA、OLA、WSS、OLP、TFF、OCM8、OTD8
- ✘ Slot 9 Installs the main control (SCU) board;
- ✘ Slots 6 and 7 Install the FAN board;
- ✘ Slots 5 and 8 Insert the PSU board.

Place cables

5.5 Plug and unplug optical module



Instruction

1. After the optical module is installed, do not remove the dust-proof plug if the optical fiber is not connected temporarily.
2. After the dust plug is removed, keep it properly for future use.
3. The optical module needs to be configured separately and installed on the host onsite.

① Hold the optical module and insert it into the board.



② Hold the pull ring and pull out the optical module.



Attention

When pulling out an optical module, pull out the optical module by holding the ring. Do not pull out the optical module by holding the label.

At the same time, when the module insertion is blocked, do not push the module in hard, and observe whether the module insertion direction is correct.

Place cables

5.6 Place fibers



Warning

- When installing and maintaining the optical fiber, do not get close to or look into the optical fiber outlet with naked eyes.



Attention

- Before installing and routing internal optical fibers, install a fixed optical attenuator on the corresponding optical port of the board according to the fixed optical failure installation table. It is recommended to add only one optical attenuator. Multiple optical attenuators may lead to the risk of top door and service interruption.
- The bending radius of single-mode G.652 optical fibers must be at least 50mm.
- The bending radius of multi-mode optical fibers cannot be less than 50mm.
- The bending radius of MPO optical fibers must be at least 60mm.

5.6.1 Install business board fibers



① Remove the dust plug from the optical module and the dust cap from the optical fiber connector.



② Connect an optical fiber to an optical module on the corresponding wave channels.



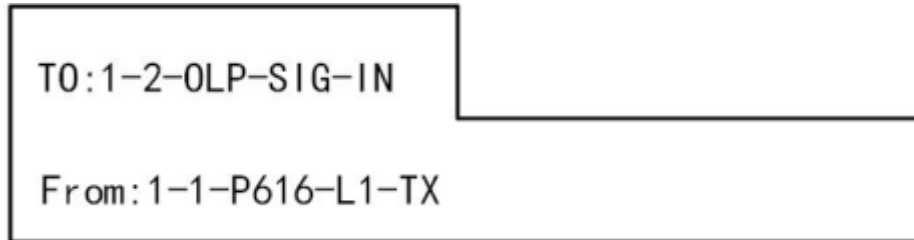
③ Bind the optical fibers properly and use Velcro to bind the optical fibers every 150mm to 300mm.



④ To remove the optical fiber, gently push the optical fiber connector inward and pull it out by holding the buckle. Do not pull out the optical fiber directly by pulling the optical fiber connector.

Place cables

5.6.2 Label between boxes



(1) To: Sub-rack number - Slot number - Board name - Optical port name

Meaning: Insert one end of the optical fiber into the 2-OLP board -SIG (IN) port in slot 1 of the subframe.

(2) From: Sub-rack number - Slot number - Board name - Optical port name

Meaning: Insert the other end of the optical fiber into the -L1 (TX) port of the 1-P616 board in slot 1 of the chassis.

5.6.3 Manage fibers

After the optical fibers are laid out, they must be in bundles and do not intertwine with each other. Bind them neatly with fiber binding tapes to avoid optical fibers being squeezed. Insert an optical connector into an optical port, and put an optical cap on the pigtail that does not connect an optical fiber.

manage correctly



manage incorrectly

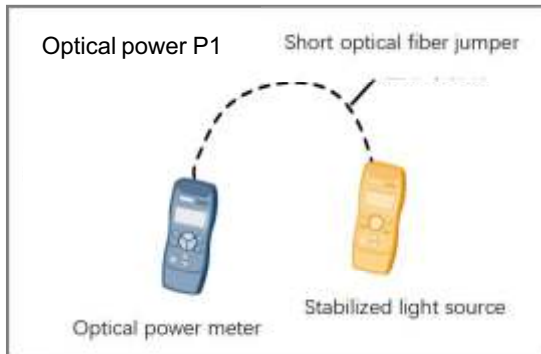


Place cables

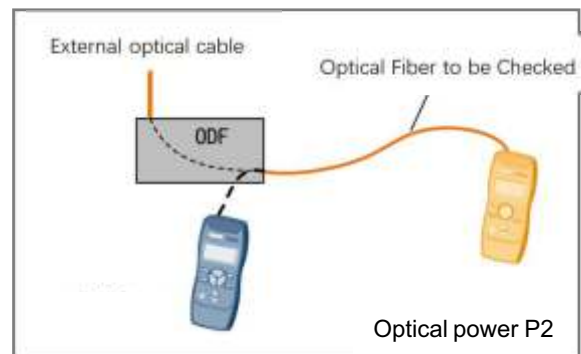
5.7 check fiber loss

Warning

- During the process of checking laser decay, avoid laser exposure to human eyes.



- ① Test the output optical power of the light source.



- ② Test the optical output of the light source after the optical fiber is checked

Instruction :

- 1、 If the difference between P1 and P2 is less than 1dB, the optical fiber is properly connected. Otherwise, clean the optical fiber. If the difference between P1 and P2 is still greater than 1dB after cleaning, replace the optical fiber.
- 2、 It is recommended that the wavelength of light source should be near 1550nm and the wavelength range of optical power meter should be set to 1550nm. If the device is powered on and configured with an luminous board, use the luminous board as the light source.

Check after installation

6.1 Check before power-on



Attention

- Check whether a fixed optical attenuator is added before power-on according to the configuration rules for fixed optical attenuators.
- Check whether the voltage of the external power supply meets requirements.
- Check whether the capacity of the external power fuse meets requirements.
- When the power supply voltage does not meet the requirements, do not power on the device.



Danger

Before the device is powered on, all switches of the device and external power supply devices must be set to OFF.

- (1) Check the fuse capacity of the external power supply.

Rack power supply Type	MAX power consumption	Recommended fuse capacity
High voltage DC power supply	550W (240V HVDC)	16A
Ac power supply	550W (200V AC~240V AC)	16A
	550W (100V AC~120V AC)	
Dc power supply	550W (-36V~-72V DC)	16A

- (2) Check the voltage of the external power supply

Rack power supply Type	Rated voltage range	Maximum voltage range
High voltage DC power supply	240V HVDC	192V HVDC ~ 288V HVDC
Ac power supply	100V AC ~ 130V AC (50 / 60 Hz)	90V AC ~ 264V AC (45 / 65 Hz)
	200V AC ~ 240V AC (50 / 60 Hz)	
Dc power supply	-48V DC ~ -60V AC	-40V AC ~ -72V AC

- (3) Use a multimeter to check whether there is short circuit between the phase line (commonly known as live line), ground line, and neutral line of each power socket.

- (4) Use a multimeter to check whether the input voltage of the external power supply is within the normal voltage range of the device.

6.2 Check after power-on

After the device is powered on, check the power indicator status of each functional unit and fan running status to determine whether the device is powered on properly.

Power indicator description:

Indicator light	Green light	Orange light	Light off	Handle exceptions onsite
PWR	The power supply is normal	The power supply is abnormal	The device is powered off or cannot work properly	Disconnect the power supply immediately, rectify the fault, and then power on again.

Fan board: Check whether the fan is started at the rear of the device or feel the air volume at the air outlet of the device.

Meaning of fan indicator::

Indicator light	Green light	Red light	Light off	Handle exceptions onsite
STAT	The power supply is normal	The power supply is abnormal	The device is powered off or cannot work properly	Query software alarms. If alarms exist, replace the fan box

SCU main control board power indicator description:

Name of printing	Functional description
STAT(Board running status indicator)	Steady green: The device is powered on and operating normally
	Steady red: A critical alarm is generated
	Blinking red at 1Hz: a major alarm is generated
	Steady yellow: A minor alarm is generated
	Blinking yellow at the frequency of 1Hz, the device software is not running properly
	If the indicator is off, the device is powered off or cannot work properly
ACT (Active and standby status indicators)	When both the active and standby boards are installed, the one with the active/standby indicator on is the active board, and the one with the inactive indicator is the standby board
	In the case of a single main control system, the active and standby indicators are steady on
SFP1 (SFP port 1 running status indicator)	Steady green: SFP port 1 is properly connected
	If the indicator is off, the connection to SFP port 1 is abnormal
SFP2 (SFP port 2 running status indicator)	Steady green: SFP port 1 is properly connected
	If the indicator is off, the connection to SFP port 1 is abnormal

Description of the indicators on the front panel:

Name of printing	Functional description
STAT(Board running status indicator)	Steady green: The device is powered on and operating normally
	Steady red: A critical alarm is generated
	Blinking red at 1Hz: a major alarm is generated
	Steady yellow: A minor alarm is generated
	Blinking yellow at the frequency of 1Hz, the device software is not running properly
	If the indicator is off, the device is powered off or cannot work properly

Electrical board panel indicator:

Name of printing	Functional description
STAT(Electrical board panel indicator)	Steady green: The device is powered on and operating normally
	Steady red: A critical alarm is generated
	Blinking red at 1Hz: a major alarm is generated
	Steady yellow: A minor alarm is generated
	Blinking yellow at the frequency of 1Hz, the device software is not running properly
	If the indicator is off, the device is powered off or cannot work properly
L1 (OTUCn, ODUK, CFP2-DCO module, OCH layer running status indicator)	Steady green: The module running status and the cable status are normal
	Steady red: A critical alarm is generated for the port
	Blinking red at 1Hz: a major alarm is generated for the port
	Steady yellow: A minor alarm is generated for the port
	If the indicator is off, no service is running on the port
C1~Cn (OPUk, QSFP28 module, service running status indicator on the customer side)	Steady green: The module running status and the cable status are normal
	Steady red: A critical alarm is generated for the port
	Blinking red at 1Hz: a major alarm is generated for the port
	Steady yellow: A minor alarm is generated for the port
	If the indicator is off, no service is running on the port

OTA Optical board panel indicator description:

Name of printing	Functional description
STAT(Board running status indicator)	Steady green: The device is powered on and operating normally
	Steady red: A critical alarm is generated
	Blinking red at 1Hz: a major alarm is generated

Name of printing	Functional description
	Steady yellow: A minor alarm is generated
	Blinking yellow at the frequency of 1Hz, the device software is not running properly
	If the indicator is off, the device is powered off or cannot work properly
LINE/SIG (Optical port status indicator)	Steady green, no alarm is generated, and the input light is generated and within the normal range
	Steady yellow, major or minor alarms, with input light but within the lower threshold
	Red Steady on: A critical alarm is generated, indicating that the input light is absent

OLA Optical board panel indicator description:

Name of printing	Functional description
STAT(Board running status indicator)	Steady green: The device is powered on and operating normally
	Steady red: A critical alarm is generated
	Blinking red at 1Hz: a major alarm is generated
	Steady yellow: A minor alarm is generated
	Blinking yellow at the frequency of 1Hz, the device software is not running properly
	If the indicator is off, the device is powered off or cannot work properly
LINE1/2 (Optical port status indicator)	Steady green, no alarm is generated, and the input light is generated and within the normal range
	Steady yellow, major or minor alarms, with input light but within the lower threshold
	Red Steady on: A critical alarm is generated, indicating that the input light is absent

WSS Optical board panel indicator description:

Name of printing	Functional description
STAT(Board running status indicator)	Steady green: The device is powered on and operating normally
	Steady red: A critical alarm is generated
	Blinking red at 1Hz: a major alarm is generated
	Steady yellow: A minor alarm is generated
	Blinking yellow at the frequency of 1Hz, the device software is not running properly
	If the indicator is off, the device is powered off or cannot work properly

Name of printing	Functional description
	If the indicator is off, the device is powered off or cannot work properly
SIG /EXP/ADxx	Steady green, no alarm is generated, and the input light is generated and within the normal range
	Steady yellow, major or minor alarms, with input light but within the lower threshold
	Red Steady on: A critical alarm is generated, indicating that the input light is absent

Name of printing	Functional description
LINE (Optical port status indicator)	Steady green, no alarm is generated, and the input light is generated and within the normal range
	Steady yellow, major or minor alarms, with input light but within the lower threshold
	Red Steady on: A critical alarm is generated, indicating that the input light is absent

OLP Optical board panel indicator description:

Name of printing	Functional description
STAT(Board running status indicator)	Steady green: The device is powered on and operating normally
	Steady red: A critical alarm is generated
	Blinking red at 1Hz: a major alarm is generated
	Steady yellow: A minor alarm is generated
	Blinking yellow at the frequency of 1Hz, the device software is not running properly
	If the indicator is off, the device is powered off or cannot work properly
SIG	The optical power of the input port is higher than the threshold
	If the indicator is steady red, the optical power of the input port is lower than the threshold (the input optical power exceeds the threshold).
A1/A2	Steady red: The current port is the standby path, and the input port receives optical power lower than the threshold (input optical power exceeds the threshold).
	Blinking red at the frequency of 1Hz: The port is the working path, but the input power is lower than the threshold (the input optical power exceeds the threshold).
	Blinking green at the frequency of 1Hz: The port is a working path and the input power is higher than the threshold
	If the port is on for a long time, it indicates that the port is the standby path and the input power of the port is higher than the threshold
B1/B2	Steady red: The current port is the standby path, and the input port receives optical power lower than the threshold (input optical power exceeds the threshold).
	Blinking red at the frequency of 1Hz: The port is the working path, but the input power is lower than the threshold (the input optical power exceeds the threshold).
	Blinking green at the frequency of 1Hz: The port is a working path and the input power is higher than the threshold
	If the port is on for a long time, it indicates that the port is the

Name of printing	Functional description
	standby path and the input power of the port is higher than the threshold

OTDR Optical board panel indicator description :

Name of printing	Functional description
STAT(Board running status indicator)	Steady green: The device is powered on and operating normally
	Steady red: A critical alarm is generated
	Blinking red at 1Hz: a major alarm is generated
	Steady yellow: A minor alarm is generated
	Blinking yellow at the frequency of 1Hz, the device software is not running properly
	If the indicator is off, the device is powered off or cannot work properly
P1~P8	Light On: The port is being measured
	Light Off: The port is not in the measuring state

OCM Optical board panel indicator description :

Name of printing	Functional description
STAT(Board running status indicator)	Steady green: The device is powered on and operating normally
	Steady red: A critical alarm is generated
	Blinking red at 1Hz: a major alarm is generated
	Steady yellow: A minor alarm is generated
	Blinking yellow at the frequency of 1Hz, the device software is not running properly
	If the indicator is off, the device is powered off or cannot work properly
P1~P8	Light On: The port is being measured
	Light Off: The port is not in the measuring state

TFF Optical board panel indicator description :

Name of printing	Functional description
STAT(Board running status indicator)	Steady green: The device is powered on and operating normally
	Steady red: A critical alarm is generated
	Blinking red at 1Hz: a major alarm is generated
	Steady yellow: A minor alarm is generated
	Blinking yellow at the frequency of 1Hz, the device software is not running properly

Check after installation

6.3 Connect Device

To facilitate the maintenance and configuration of the NS-DWDM-OP01-DCI-AC, you can use network cables to connect the computer to the NS-DWDM-OP01-DCI-AC.

First, use the network cable to connect the management computer NIC to the management network port of the device (NM1 or NM2, the device runs normally), and then set the IP address of the management computer NIC. After the setting is successful, enter the DOS command line interface, and enter ping xx.xx.xx.xx(device network port interconnection address) in the interface to check whether the connection is successful.

Access the device through a network cable



The local PC can also be connected to the Console port of the device through the Console cable. Connect the device using HyperTerminal or SecureCRT software on Windows. Check the serial port that connects the local PC to the console port of the device, select the COM port, and set the serial port parameters.

Access the device through the Console cable



The default login information over the serial port is as follows::

agreement (P) : Serial

port (O) : COM1 (Select the corresponding port)



Baud rate (B) : 115200

Bit of data (D) : 8

Parity check (A) : None

Stop bit (S) : 1

Data flow control set to "Null"

For details about the operation commands, see the command line operation manual.

Appendix



Attention

- Fan boards, power modules, and main control boards are hot-swappable.
- Before replacing a power board, remove the power cable from the power board and then replace the power board. Ensure that the other power board is powered on during the replacement. Otherwise, removing the power board will cause a power failure and interrupt services.。
- Prepare a spare board before replacement.
- The duration of replacing a fan board cannot exceed 3 minutes.
- After the power module is powered off, wait until the power indicator is off. Otherwise, the power module cannot be powered on.

7.1 Change the fan unit

- ① Hold the buckle on the fan box with your thumb and pull the buckle

parallel to the fan box.

- ② Pull out the fan box.

- ③ Empty slot status of the fan box after the fan box is removed.



①




②



③

Appendix

7.2 Change the power unit

- ① Use your thumb to snap the  on the air supply to the right and hold.
- ② Pull out the power supply.
- ③ Empty slot status of the power module after the power module is removed.

 **Attention**

Remove the power cable from the power module before replacing it.



①



②



③

Appendix

7.3 Change control board

- ① Hold the buckle of the main control board and pull the buckle parallel to the main control board.
- ② Pull out the main control board.
- ③ Status of the empty slot on the MPU after the MPU is removed.



①



②



③