

Quick Start Guide

400G Transponder and Muxponder
AMX3200



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Package Contents



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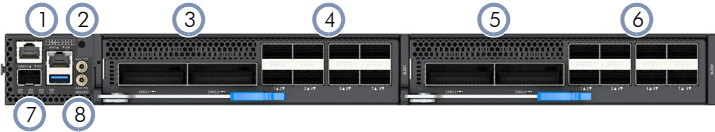


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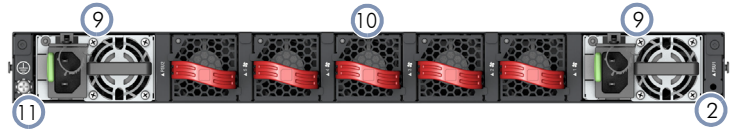
1. 400G Transponder and Muxponder
2. 4-Post Rack Bracket Kit—includes 2 x L-brackets, 2 x rear brackets, 2 x holding brackets, 20 x M4x6 flat head screws, and 2 x M4x8 pan washer head screws
3. 1 x Blank cover panel accessory

4. AC power cord, type IEC C13 (included with AC PSUs only)
5. DC power cord (included with DC PSUs only)
6. Documentation—*Quick Start Guide* (this document) and *Safety and Regulatory Information*

Overview

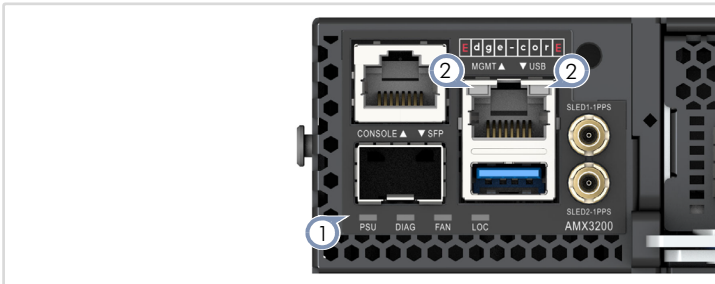


1. RJ-45 Console port, 1G SFP port, 1000BASE-T MGMT RJ-45 port, USB
2. 4 mm banana receptacle
3. Sled 1: 2 x 400G CFP2 slots
4. Sled 1: 8 x 100G QSFP28 ports
5. Sled 2: 2 x 400G CFP2 slots

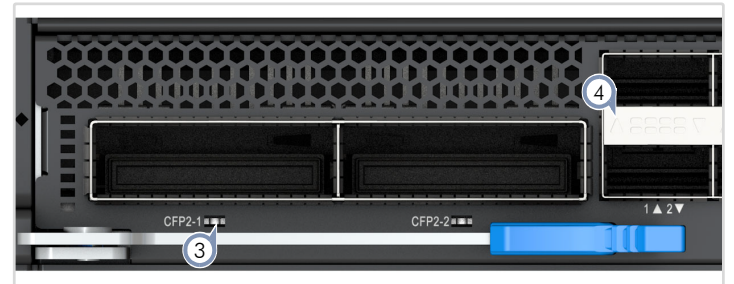


6. Sled 2: 8 x 100G QSFP28 ports
7. System LEDs
8. Sled 1/2 1PPS Timing Ports
9. 2 x AC or DC PSUs
10. 5 x fan trays
11. Grounding screw

System/Port LEDs

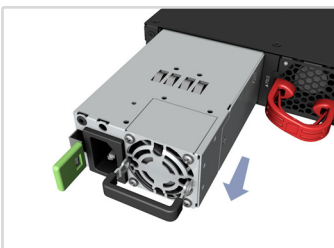


1. **System LEDs:**
PSU: Green (OK), Amber (fault)
DIAG: Green (OK), Amber (fault)
FAN: Green (OK), Amber (fault)
LOC: Flashing Amber (switch locator)
2. **MGMT LEDs:** Left: Green (link/act), Right: Green (1G speed)



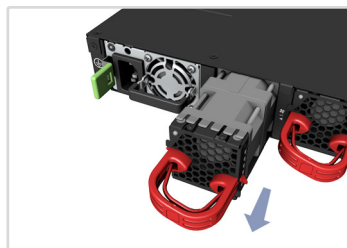
3. **CFP2 LEDs:** Green (link/activity)
4. **QSFP28 LEDs:** Green (link/activity)

FRU Replacement



PSU Replacement

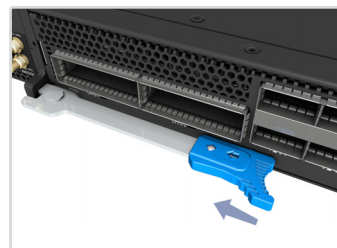
1. Remove the power cord.
2. Press the release latch and remove the PSU.
3. Install replacement PSU with matching airflow direction.



Fan Tray Replacement

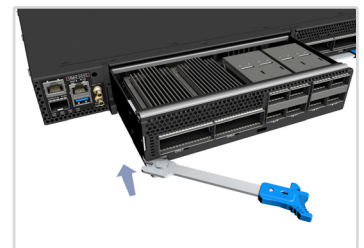
1. Pull the handle release latch.
2. Remove the fan tray from the chassis.
3. Install a replacement fan with matching airflow direction.

Sled Replacement



Sled Removal

1. Remove the power cord.
2. Press the blue release latch on the lever and rotate it to its out position.
3. Slide the sled module out of the chassis.



Sled Installation

1. Slide the sled module into the chassis.
2. Rotate the lever into its closed position.
3. Restore the power cord.



Installation



Warning: For a safe and reliable installation, use only the accessories and screws provided with the device. Use of other accessories and screws could result in damage to the unit. Any damages incurred by using unapproved accessories are not covered by the warranty.

Avertissement: Pour une installation sûre et fiable, utilisez uniquement les accessoires et les vis fournies avec l'appareil. L'utilisation d'autres accessoires et vis pourrait endommager l'appareil. Les dommages causés par l'utilisation d'accessoires non approuvés ne sont pas couverts par la garantie.



Caution: The device must be installed in a restricted-access location.

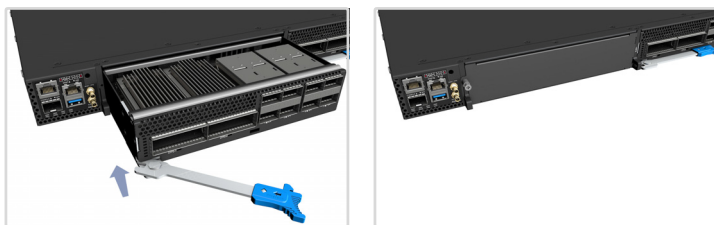
Attention: L'appareil doit être installé dans un emplacement à accès restreint.



Note: The device has the Open Network Install Environment (ONIE) software installer preloaded, but no device software image.

Note: The drawings in this document are for illustration only and may not match your particular model.

1 Install Sled Modules



Install sled modules into one or both chassis slots. For unused slots, be sure to install a blank cover panel over the slot.

2 Mount the Device



Caution: This device must be installed in a telecommunications room or a server room where only qualified personnel have access.

Attention: Cet appareil doit être installé dans une salle de télécommunications ou une salle de serveurs où seul le personnel qualifié a accès.



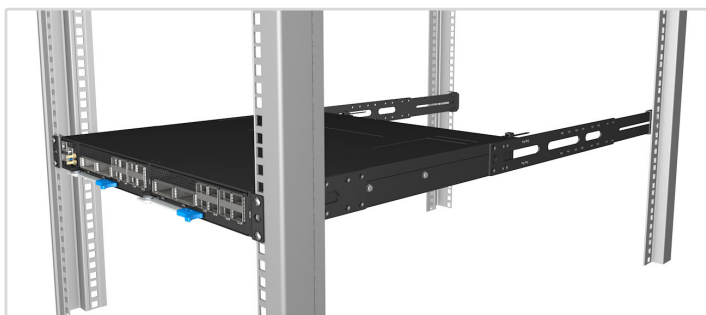
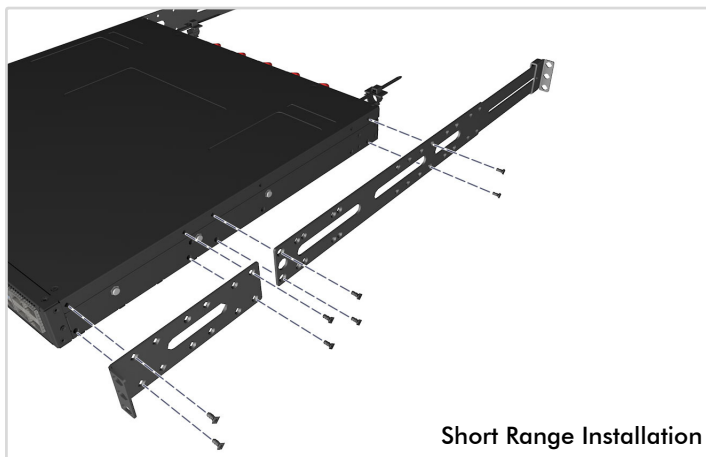
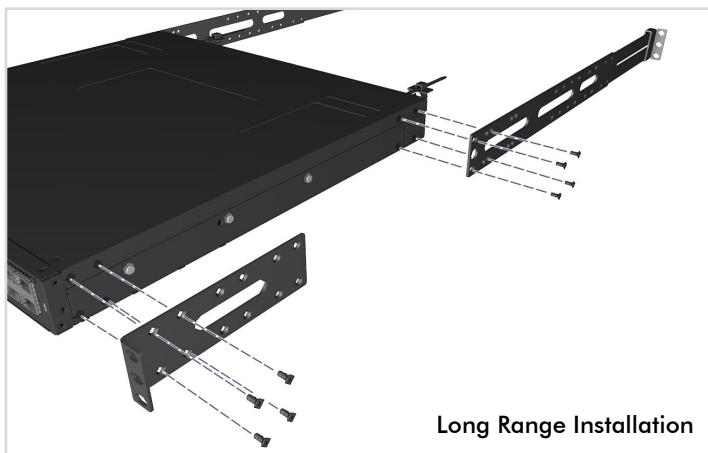
Note: All mounting dimensions and rack compatibility comply with the EIA-310-D standard.

1. Attach the Brackets

Use the included screws to attach the front- and rear-post brackets.

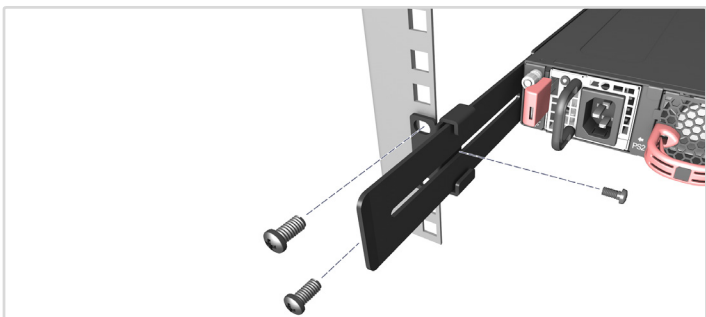
The 4-post mounting brackets support two rack depth ranges.

- Short Range: 555 to 670 mm (21.9 to 26.4 in.)
- Long Range: 760 to 875 mm (29.9 to 34.4 in.)



2. Mount the Device

Mount the device in the rack and secure it with rack screws.



3. Lock the Rear-Post Brackets

Use the included screws to lock the position of the rear-post brackets.



Optional Slide-Rail Installation

An optional slide-rail kit (RKIT-100G-SLIDE) is available for rack installation. For detailed instructions, refer to the installation guide provided with the slide-rail kit.

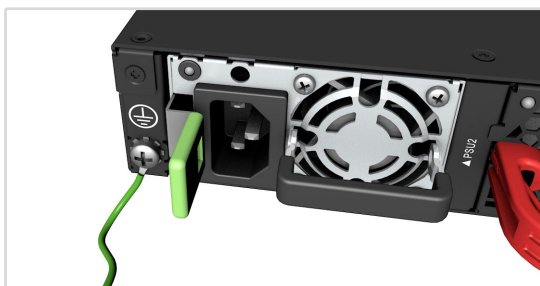
The slide-rail kit supports a rack depth range of 674 ± 3 to 919 ± 3 mm (26.5 to 36.2 in.)



Important Safety Information:

- Risk of Rack Instability: Before extending the slide rails, ensure the rack is properly secured (for example, anchored or braced) and that the equipment within the rack is evenly distributed and balanced; extending the slide rails without these precautions can cause the rack to tip over, resulting in serious injury.
- Before extending the slide rails to the installation position, carefully review and follow the installation instructions provided with the slide-rail kit.
- Do not place any load or additional weight on the equipment while it is mounted on the slide rails in the extended position.
- To avoid personal injury, do not leave the equipment extended in the installation position unattended.

3 Ground the Device



Verify Rack Ground

Ensure the rack on which the device is to be mounted is properly grounded and in compliance with ETSI ETS 300 253. Verify that there is a good electrical connection to the grounding point on the rack (no paint or isolating surface treatment).

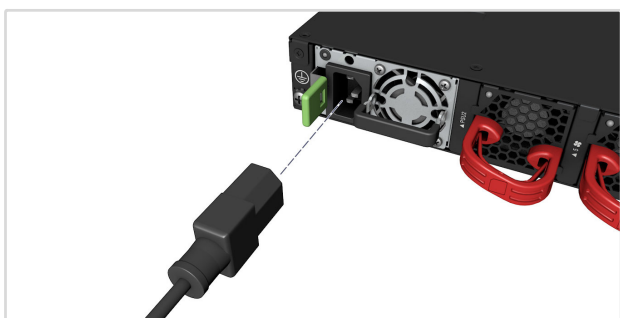
Attach Grounding Wire

Attach a #8 AWG grounding wire (green with yellow stripe, not included) to the grounding point on the device rear panel. Then connect the other end of the wire to rack ground.

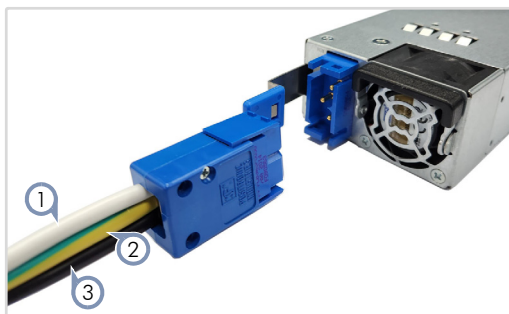


Caution: This device has a separate protective earthing terminal provided on the chassis in addition to the grounding pin of the power supply cord. This separate protective earthing terminal must be permanently connected to earth ground and the installation must be performed by a qualified professional.
Attention: Cet appareil dispose d'une borne de mise à la terre de protection séparée prévue sur le châssis en plus de la broche de mise à la terre du cordon d'alimentation. Cette borne de terre de protection séparée doit être connectée en permanence à la terre et l'installation doit être réalisée par un professionnel qualifié.

4 Connect Power



Install one or two AC or DC PSUs and connect them to an AC or DC power source.



1. DC Return (white wire)
2. Ground (yellow-green wire)
3. -40 – -72 VDC (black wire)

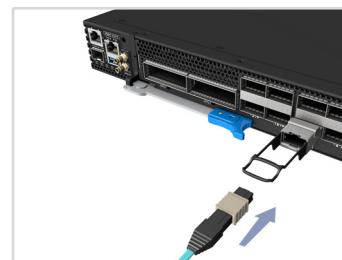
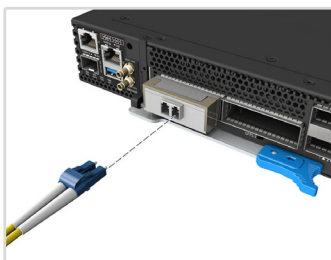


Caution: Use a UL/IEC/EN 60950-1 and/or 62368-1 certified power supply to connect to a DC converter.
Attention: Utilisez une alimentation certifiée UL/IEC/EN 60950-1 et/ou 62368-1 pour le connecter à un convertisseur CC.
Caution: All DC power connections should be performed by a qualified professional.
Attention: Toutes les connexions d'alimentation CC doivent être effectuées par un professionnel qualifié.



Note: Use #10 AWG copper wire (for a -40 to -72 VDC PSU) to connect to a DC PSU.

5 Make Network Connections



400G CFP2 Ports

Install CFP2 DCO coherent optical transceivers and then connect fiber optic cabling to the transceiver ports.

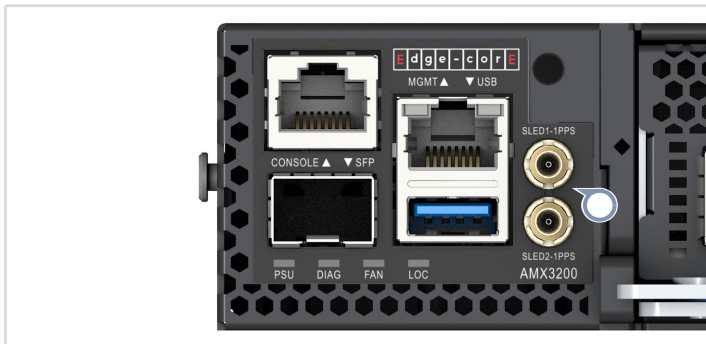
100G QSFP28 Ports

Install transceivers and then connect fiber optic cabling to the transceiver ports. Alternatively, connect AOC/DAC cables directly to the QSFP28 slots.

The following transceivers are supported in the QSFP28 ports:

- 100GBASE-SR4
- 100GBASE-LR4
- 100GBASE-ER4

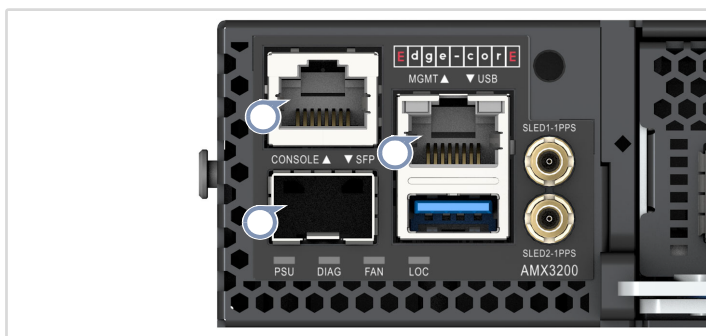
6 Connect Timing Ports



Sled 1/2 1PPS Ports

Use a coax cable to connect the 1-pulse-per-second (1PPS) port to another synchronized device.

7 Make Management Connections



1G SFP Out-of-Band Management Port

Install transceivers and then connect fiber optic cabling to the transceiver ports.

10/100/1000M RJ-45 Out-of-Band Management Port

Connect Cat. 5e or better twisted-pair cable.

RJ-45 Console Port

Use an RJ-45-to-DB-9 null-modem console cable (not included) to connect to a PC running terminal emulator software. Use a USB-to-male DB-9 adapter cable (not included) for connections to PCs that do not have a DB-9 serial port.

Configure the serial connection: 115200 bps, 8 characters, no parity, one stop bit, 8 data bits, and no flow control.

Console cable pinouts and wiring:

| Device's RJ-45 Console | Null Modem | PC's 9-Pin DTE Port |
|--------------------------|------------|------------------------|
| 6 RXD (receive data) | <----- | 3 TXD (transmit data) |
| 3 TXD (transmit data) | -----> | 2 RXD (receive data) |
| 4,5 SGND (signal ground) | ----- | 5 SGND (signal ground) |

Hardware Specifications

Switch Chassis

| | |
|--------------|---|
| Size (WxDxH) | 438.4 x 430 x 43.5 mm (17.26 x 16.93 x 1.71 in.) |
| Weight | 10.28 kg (22.66 lb), with 2 sleds, 2 PSUs, and 5 fans installed |
| Temperature | Operating: 0° C to 45° C (32° F to 113° F) Storage: -40° C to 70° C (-40° F to 158° F) |
| Humidity | Operating: 5% to 95% (non-condensing) |

System Input Rating

| | |
|----------|---|
| AC Input | 100–127 VAC, 50/60 Hz, 10.0 A max. per PS 200–240 VAC, 50/60 Hz, 8.0 A max. per PS |
| DC Input | -40 – -72 VDC, 40 A max. per PS |

Regulatory Compliances

| | |
|-----------|---|
| Emissions | EN 55032 Class A EN 300 386 Class A EN 61000-3-2 EN 61000-3-3 VCCI Class A AS/NZS Class A ICES-003 Class A FCC Class A BSMI Class A |
| Immunity | EN 55024/55035 EN 300 386 IEC 61000-4-2/3/4/5/6/8/11 |
| Safety | UL (CSA 22.2 No 62368-1 & UL62368-1) CB (IEC/EN 62368-1) BSMI CNS 15598-1 |