Edge-core AS7535-28XB Ethernet Switch User Guide

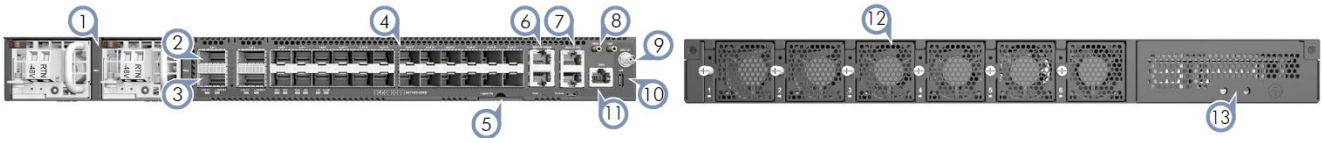
Contents

Edge-core AS7535-28XB Ethernet Switch

Package Contents

1. AS7535-28XB (includes 2 PSUs and 6 fan trays)
2. Rack Mounting Kit—2 brackets and 8 screws
3. Grounding kit—grounding lug, 2 screws, and 2 washers
4. (Optional) AC power cord
5. Documentation—Quick Start Guide (this document) and Safety and Regulatory Information

Overview



1. 2 x DC or AC PSUs
2. 2 x 100G QSFP28 ports
3. 2 x 400G QSFP-DD ports
4. 24 x 25G SFP28 ports
5. Product tag
6. Management I/O: 1000BASE-T RJ-45, RJ-45 console, Micro-USB console, reset button
7. BITS/ToD RJ-45 timing ports
8. 10MHz/1PPS I/O
9. GNSS antenna
10. USB Type C storage port
11. RJ-45 alarm port
12. 6 x fan trays
13. Grounding screw

Status LEDs

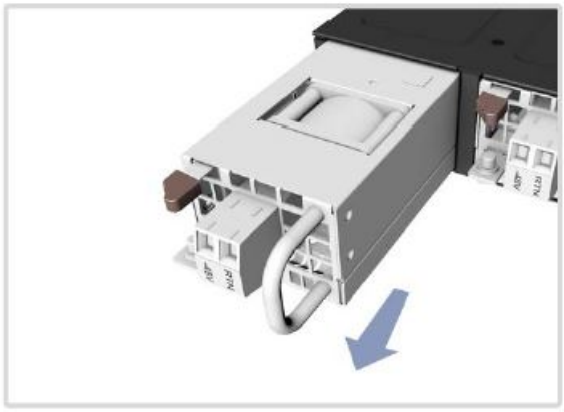
1. PSU LED: Green (OK), Amber (fault)
2. QSFP-DD Port LEDs: Blue (400G), Cyan (200G), Green (100G), Yellow (50G)
3. QSFP28 Port LEDs: Green (100G), Cyan (50G), Magenta (40G), Blue (25G), Yellow (10G)
4. SFP28 Port LEDs: Blue (25G), Green (10G), Cyan (1G)
5. System LEDs:
    - PSU1/2 — Green (OK), Amber (fault)
    - DIAG — Green (OK), Orange (fault detected)

- FAN — Green (OK), Orange (fault)
- LOC — Blinking Blue (OK)
- ALARM — Green (OK), Red (alarm)

6. RJ-45 Management Port LEDs: Left (link), Right (activity)
7. BITS/ToD LEDs: Green (valid BITS), Blinking Green (1PPS ToD)

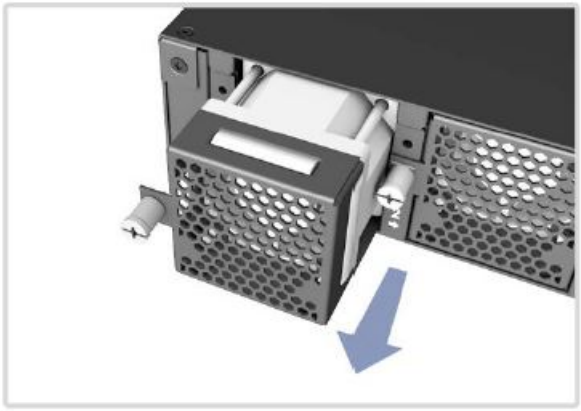
FRU Replacement

PSU Replacement



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

Fan Tray Replacement



1. Loosen the fan tray screw.
2. Pull out and remove the fan tray.
3. Install replacement fan tray.

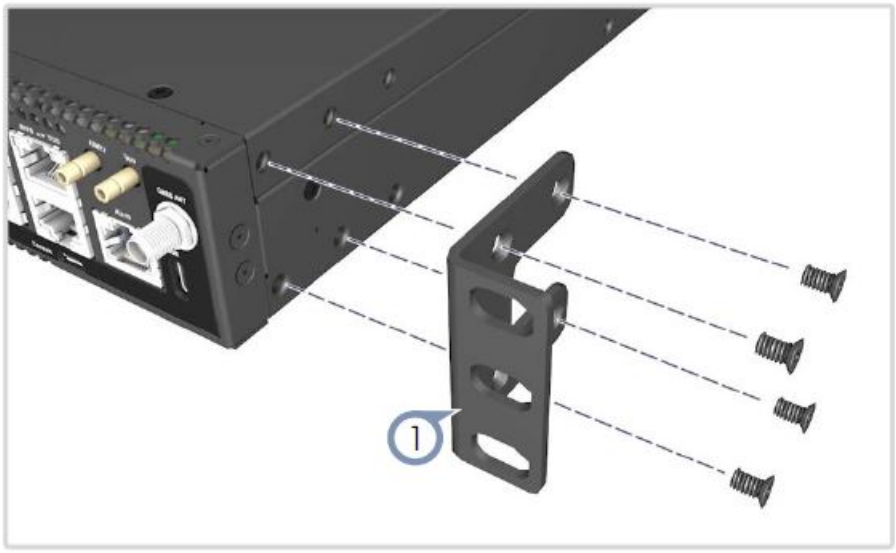
Installation

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

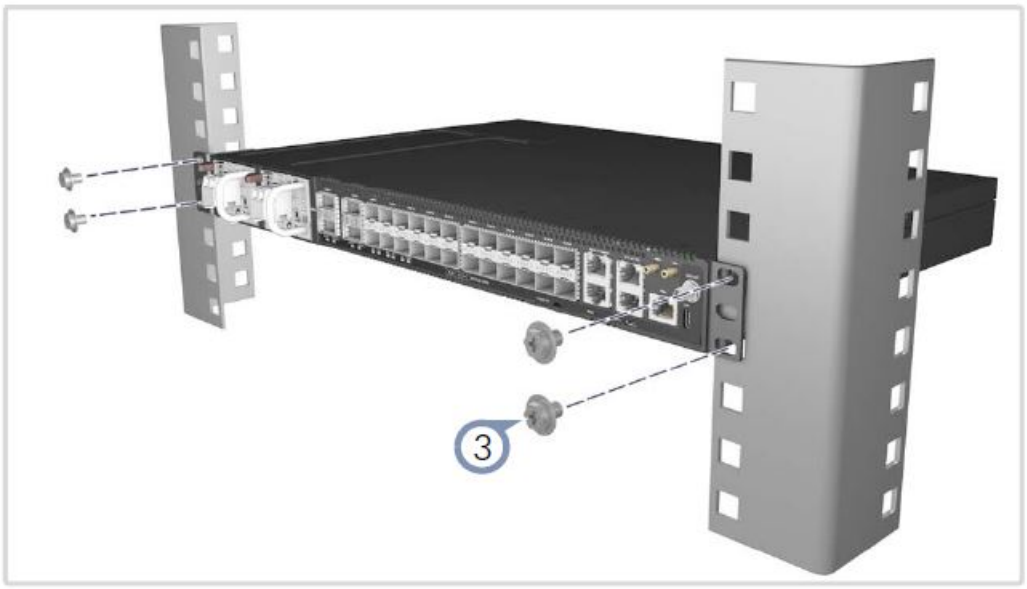
Note: The device has the Open Network Install Environment (ONIE) software installer preloaded, but no software image. Information about compatible software can be found at **www.edge-core.com.**

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

Mount the Device in an EIA-310 Rack

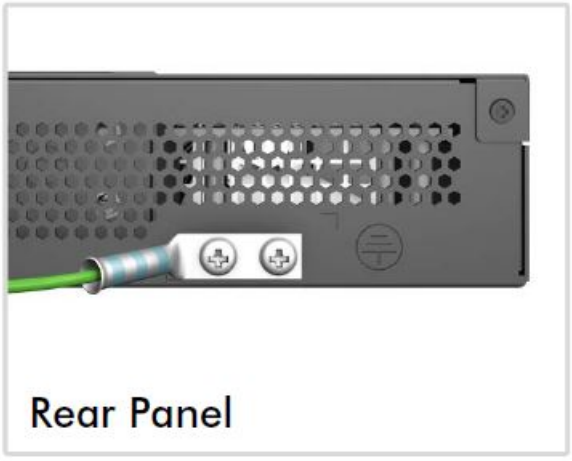


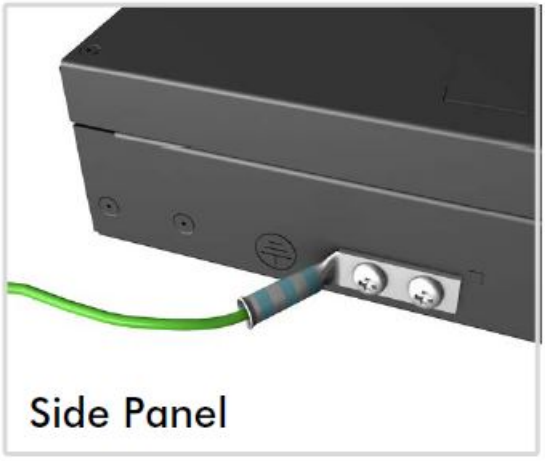
1. For a 300mm-deep rack, use the four front screw holes to attach each of the brackets to the device with four of the included bracket screws. (For a 280mm-deep rack, use the four recessed screw holes.)



2. Use the screws and cage/clip nuts supplied with the rack to secure the device in the rack.

Ground the Device





Verify Rack Ground
Ensure the rack is properly grounded and in compliance with international and local standards. Verify that there is a good electrical connection to the grounding point on the rack (no paint or isolating surface treatment).

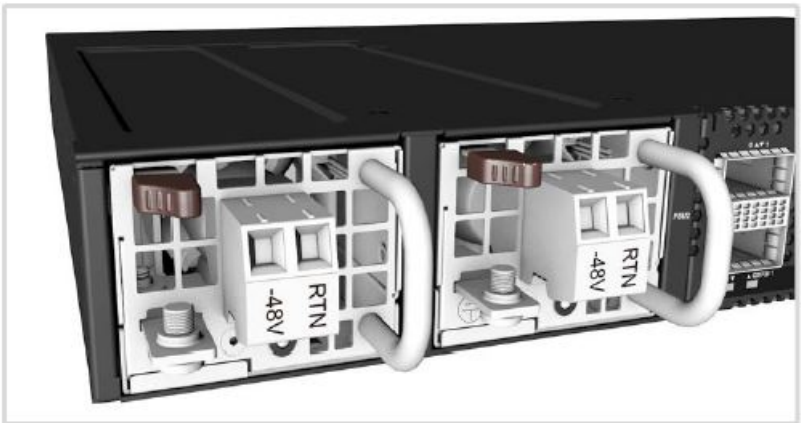
Attach Grounding Wire
Attach the grounding wire (#14 AWG/1.5 mm2, green with yellow stripe) to the grounding point on the device's rear panel or side panel. Then connect the other end of the wire to rack ground.

Connect Power

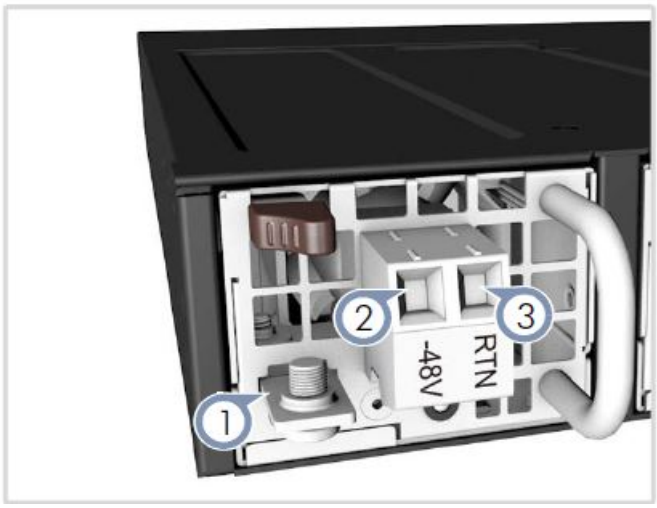
- **a. AC Power:**

Install one or two AC PSUs in the device, if they are not already installed in the factory. Then connect an external AC power source to the PSUs.

- **b. DC Power:**

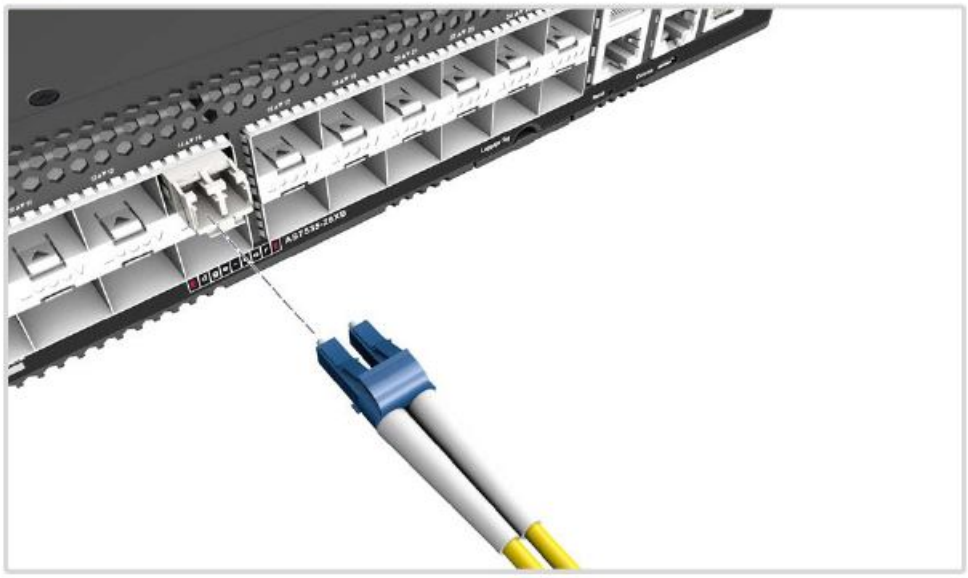


Install one or two DC PSUs (part number CDR-6011-6M4 only) in the device, if they are not already installed in the factory. Connect an external DC power source to the PSUs. Or, connect to a no-tolerance DC mains supply with a UL/CSA-approved circuit breaker rated at 16 A.



1. Connect the ground wire / protective earth.
2. Connect the -44 – -60 VDC wire.
3. Connect the DC return wire.

Make Network Connections

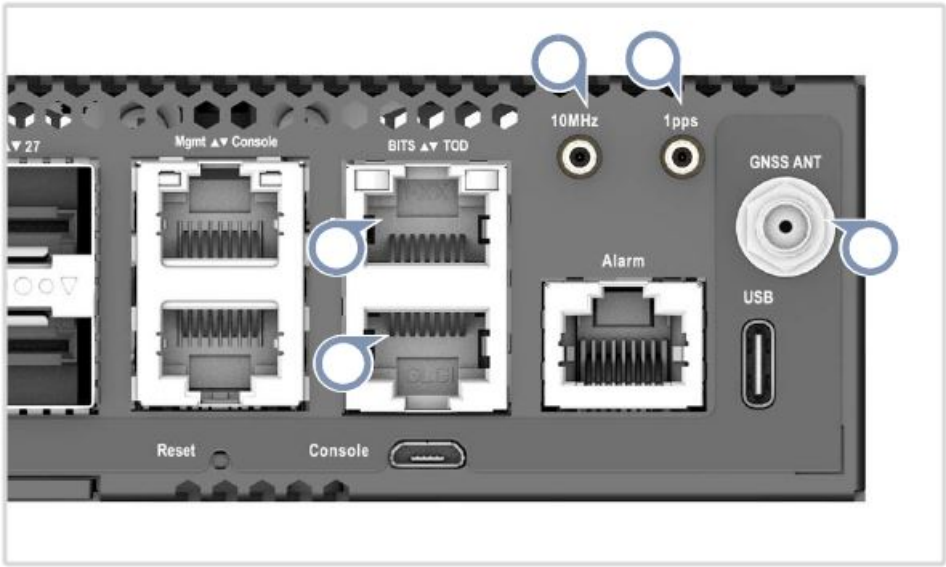


QSFP-DD/QSFP28/SFP28 Ports
Install transceivers and then connect fiber optic cabling to the transceiver ports. Alternatively, connect

AEC/AOC/DAC cables directly to the QSFP-DD/QSFP28/SFP28 slots.
The following transceivers are supported in the QSFP-DD ports:

- 400GBASE-SR8, DR4, FR4, AEC cable
- 100GBASE-SR4, PSM4, LR4, ER4, ZR4, CR4, AOC
- 40GBASE-SR4, PSM4, LR4
- 25GBASE-SR, LR, BX BiDi
- 10GBASE-SR, LR, CR, BX BiDi, T
- 1000BASE-SX, LX, BX BiDi, T

Connect Timing Ports



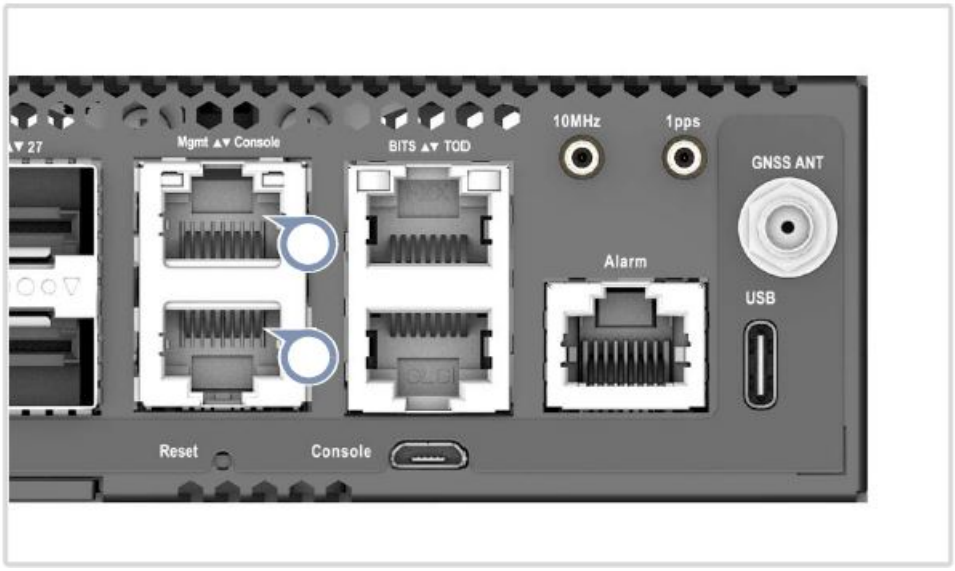
- **RJ-45 BITS/ToD**

  Use Cat. 5e or better twisted-pair cables to connect the Building-Integrated Timing Supply (BITS) and Time of Day (ToD) ports to other synchronized devices.
- **10MHz/1pps**

  Use coax cables to connect the 10 MHz and 1-pulse-per-second (1PPS) ports to other synchronized devices.
- **GNSS Antenna**

  Attach an external antenna to the GNSS antenna port for clock synchronization with GPS time.

Make Management Connections



Mgmt RJ-45 Port
Connect Category 5, 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

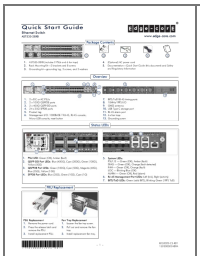
Size (WxDxH)	438.4 x 300 x 43.3 mm (17.26 x 11.81 x 1.7 in.)
Weight	7.5 kg (16.53 lb), with two installed PSUs
Temperature	Operating: -40° C to 65° C (-40° F to 149° F) Transportation: -40° C to 85° C (-40° F to 185° F) Storage: -40° C to 85° C (-40° F to 185° F)
Humidity	Operating: 5% to 95% (non-condensing)
Power Consumption (at 25° C)	Maximum: 383.6 W Typical: 164.03 W Minimum: 95.11 W
System Input Rating	AC Input: 100–240 VAC, 50–60 Hz, 6.0–2.4 A DC Input: -44 – -60 VDC, 15.5–9.6 A

Regulatory Compliances

Regulatory Compliances

Emissions	EN 55032:2015/A1:2020, Class A EN 61000-3-2:2019/A1:2021 EN 61000-3-3:2013+A1:2019 FCC Title 47, Part 15, Subpart B, Class A VCCI-CISPR 32:2016, Class A
Immunity	EN 55035:2017/A11:2020 EN 55024:2010+A1:2015 IEC 61000-4-2/3/4/5/6/8/11
Environmental	Storage: ■ ETSI EN 300 019-1-1 Class 1.1 ■ Temperature: -40° C to 85° C (-40° F to 185° F) Transportation: ■ ETSI EN 300 019-1-2 Class 2.3 ■ Temperature: -40° C to 85° C (-40° F to 185° F) Operating Conditions: ■ ETSI EN 300 019-1-3 Class 3.2 ■ Temperature: -40° C to 65° C (-40° F to 149° F) ■ Relative Humidity: 5% to 95%
Safety	UL (CSA 22.2 No 62368-1 & UL 62368-1) CB (IEC/EN 60950-1 & IEC/EN 62368-1)

Documents / Resources

	Edge-core AS7535-28XB Ethernet Switch [pdf] User Guide AS7535-28XB, Ethernet Switch, AS7535-28XB Ethernet Switch

References

- Edgecore Networks