Edge-corE®
AIS800-64D 800 Gigabit AI and Data Center Ethernet Switch

Edge-core AIS800-64D 800 Gigabit AI and Data Center Ethernet Switch User Guide

Contents

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FAQ

How do I replace the power supply unit (PSU)?

To replace the PSU, follow these steps:

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

How do I replace the fan tray?

To replace the fan tray, follow these steps:

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

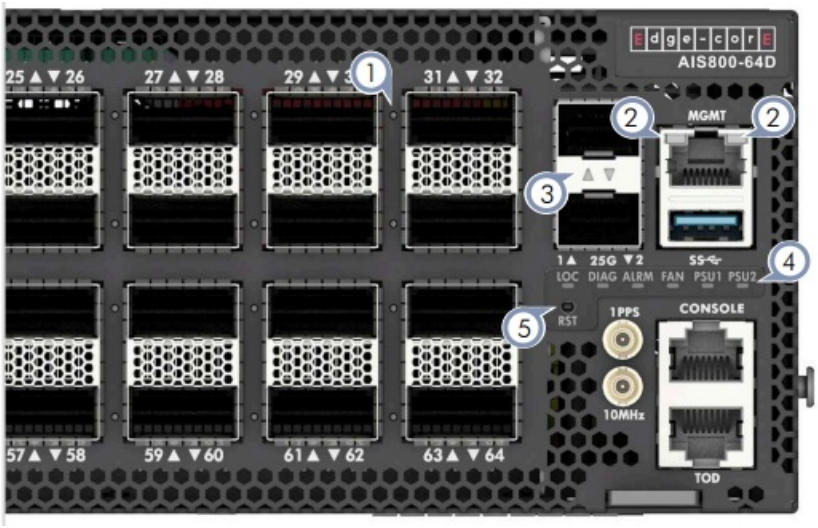
Package Contents

1. 64-Port 800 Gigabit AI & Data Center Ethernet Switch AIS800-64D
2. Slide-rail mounting kit—2 rack slide-rails and install guide
3. AC Power cord, type IEC C19/C20 (included with AC PSUs only)
4. DC power cord (included with DC PSUs only)
5. Documentation—Quick Start Guide (this document) and Safety and Regulatory Information

Overview

1. 64 x 800G QSFP-DD800 ports
2. Management Ports: 1 x 1000BASE-T RJ-45, 2 x 25G SFP28, RJ-45 console, USB
3. Timing Ports: 1PPS, 10 MHz, TOD
4. System LEDs
5. 2 x grounding screws
6. 2 x AC or DC PSUs
7. 4 x fan trays

System LEDs/Buttons



1. QSFP-DD800 LEDs: Purple (800G), Blue (400G), Cyan (200G), Green (100G), Red (50G)
2. RJ-45 MGMT LEDs: Left: Green (link/act), Right: Green (speed)
3. SFP28 LEDs: Green (link/activity)
4. System LEDs:
    - LOC: Flashing Green (switch locator)
    - DIAG: Green (OK), Red (fault)
    - ALRM: Red (fault)
    - FAN: Green (OK), Red (fault)
    - PSU1/PSU2: Green (OK), Red (fault)
5. RST: Reset button

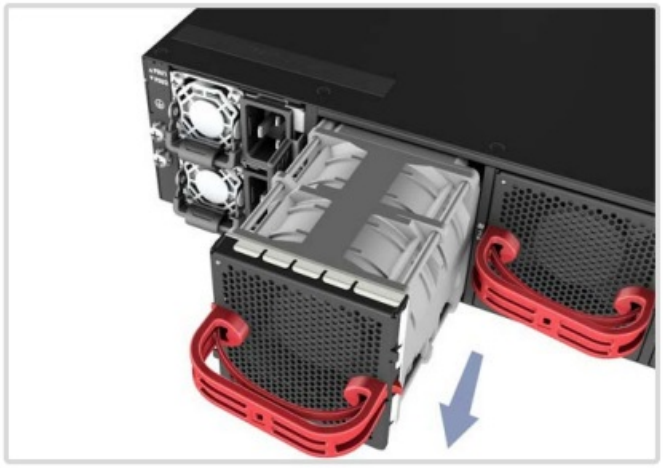
FRU Replacement

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.



Caution: During switch operation, fan replacement should be completed within two minutes to prevent the switch shutting down due to its built-in over-temperature protection.

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.
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.

Mount the Device

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

Using the Slide-Rail Kit
Follow instructions in the install guide provided in the slide-rail kit to mount the device in a rack.

Note: Stability hazard. The rack may tip over causing serious personal injury.
Before extending the rack to the installation position, read the installation instructions.

- Do not put any load on the slide-rail-mounted equipment in the installation position.
- Do not leave the slide-rail-mounted equipment in the installation position.

Ground the Device

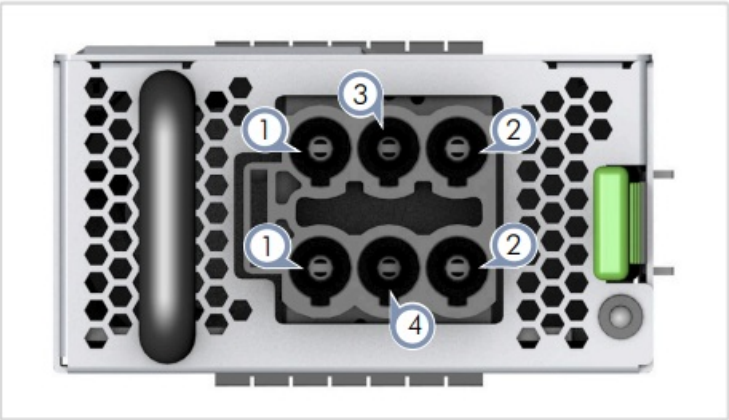
Verify Rack Ground
Ensure the rack on which the device is to be mounted is properly grounded and in compliance with ETSI ETS 300 253. Verify that there is a good electrical connection to the grounding point on the rack (no paint or isolating surface treatment).

Attach Grounding Wire
Attach a grounding wire to the grounding point on the device rear panel using two M6 screws and washers with a grounding lug (Panduit LCDXN2-14AF-E or equivalent, not included). The grounding lug should accommodate #2 AWG stranded copper wire (green with yellow stripe, not included).

Connect Power

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

Note: When using only one AC PSU to power a fully loaded system, be sure to use a high-voltage source (200–240 VAC).



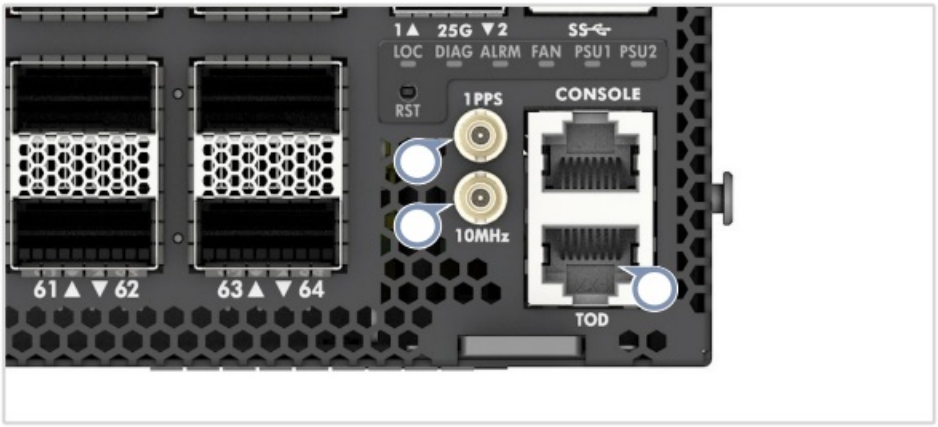
1. -48 – -60 VDC
2. DC return
3. Signal +
4. Signal –

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.
Note: Use #4 AWG / 21.2 mm2 copper wire (for a -48 to -60 VDC PSU) to connect to a DC PSU.

Make Network Connections

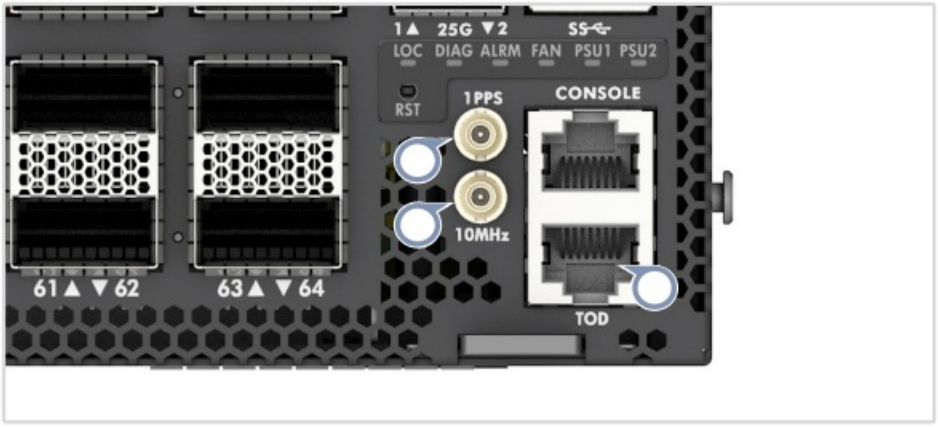
800G QSFP-DD800 Ports
Install transceivers and then connect fiber optic cabling to the transceiver ports.
Alternatively, connect DAC or AOC cables directly to the slots.

Connect Timing Ports



- **1PPS Port**
  Use a coax cable to connect the 1-pulse-per-second (1PPS) port to another synchronized device.
- **10 MHz Port**
  Use a coax cable to connect the 10 MHz port to another synchronized device.
- **TOD Port**
  Use a shielded cable to connect the Time-of-Day (TOD) RJ-45 port to other devices that use these synchronization signals.

Make Management Connections



- **25G SFP28 In-Band Management Ports**
  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

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)	440 x 649.2 x 87 mm (17.32 x 25.56 x 3.43 in.)
Weight	21.2kg kg (46.73 lb), with 2 PSUs and 4 fans installed
Temperature	Operating (front- to- back): 0° C to 40° C (32° F to 104° F) at 1800 m Operating (back-to-front): 0° C to 35° C (32° F to 95° F) at 1800 m *subject to used optics Storage: -40° C to 70° C (-40° F to 158° F)
Humidity	Operating: 5% to 95% (non-condensing)
AC PSU	
AC Input	200-240 VAC, 50/60 Hz, 16 A max.
DC PSU	
DC Input	-48 to -60 VDC 80 A max.
System Input Rating	
AC Input	200-240 VAC, 50/60Hz, 16 A max. per PS
DC Input	-48 – -60 VDC, 80 A max. per PS
Regulatory Compliances	
Emissions	EN 55032 Class A EN 61000-3-2 EN 61000-3-3 VCCI-CISPR 32 Class A AS/NZS CISPR 32 Class A ICES-003 Issue 7 Class A FCC Class A EN 300 386 Class A CNS 15936 Class A
Immunity	EN 55035 IEC 61000-4-2/3/4/5/6/8/11 EN 300 386
Safety	UL (CSA 22.2 No 62368-1 & UL62368-1) CB (IEC/EN 62368-1) BSMI CNS 15598-1

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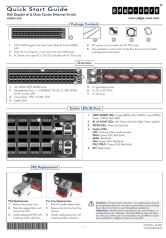
Documents / Resources



Edge-core AIS800-64D 800 Gigabit AI and Data Center Ethernet Switch [pdf] User Guide
AIS800-64D 800 Gigabit AI and Data Center Ethernet Switch, AIS800-64D 800, Gigabit AI and Data Center Ethernet Switch, Data Center Ethernet Switch, Center Ethernet Switch, Ethernet S witch, Switch

References

- Edgecore Networks – Edgecore Networks, a leading provider of traditional and open network solutions, delivers wired and wireless networking products and solutions through channel partners and system integrators worldwide for data center, service provider,
- User Manual