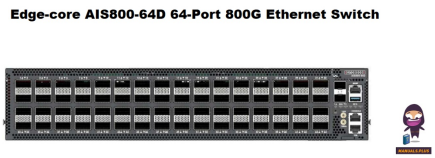


Edge-core AIS800-64D 64-Port 800G Ethernet Switch User Guide

Contents

Edge-core AIS800-64D 64-Port 800G Ethernet Switch

Specifications

- 64 x 800G QSFP-DD800 ports
- Management Ports: 1 x 1000BASE-T RJ-45, 2 x 25G SFP28, RJ-45

console, USB 3
- Timing Ports: 1PPS, 10 MHz, TOD

Product Usage Instructions

Installation

1. Mount the Device:
    - Follow instructions in the provided slide-rail kit to mount the device in a rack.
2. Ground the Device:
    - Verify that the rack is properly grounded and in compliance with ETSI ETS 300 253.
    - Attach a grounding wire to the grounding point on the device rear panel and connect the other end to rack ground.
3. Connect Power:
    - Connect power cords to the AC PSUs provided in the package.
4. Make Network Connections:
    - Install transceivers in the QSFP-DD800 ports and connect fiber optic cabling or DAC/AOC cables.
5. Connect Timing Ports:
    - Use appropriate cables to connect the 1PPS, 10 MHz, and TOD ports to synchronized devices.
6. Make Management Connections:
    - Install transceivers in the SFP28 ports for in-band management.
    - Connect Cat. 5e or better cable to the RJ-45 Out-of-Band Management Port.
    - Use the RJ-45 console port with an appropriate cable for console connections to PCs.

FRU Replacement

- For 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.

FAQ

Q: How do I connect to the device for initial setup?

A: Use the RJ-45 console port with an RJ-45-to-DB-9 null-modem cable and configure the serial connection settings as specified inthe manual.

Q: What type of cables can be used for management connections?

A: For in-band management, use fiber optic cabling with SFP28 transceivers. For out-of-band management, use

Cat. 5e or better twisted-pair cable.

Q: How do I verify proper grounding of the device?

A: Ensure that the rack where the device is mounted is properly grounded and has a good electrical connection to the device's grounding point. Use a grounding wire for additional grounding if needed.

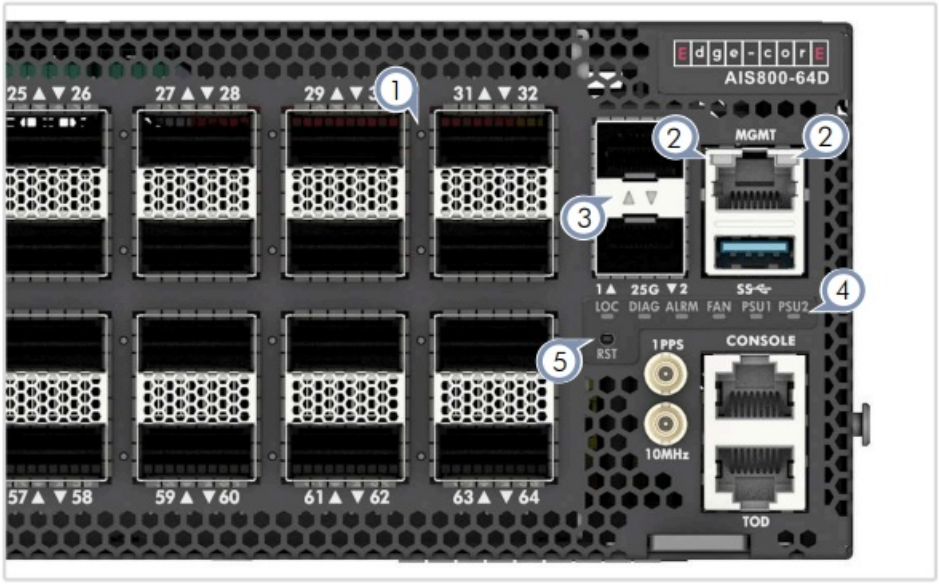
Package Contents

1. 64-Port 800G Ethernet Switch AIS800-64D
2. Slide-rail mounting kit—2 rack slide-rails and install guide
3. Power cord (type IEC C20/IEC C19)
4. 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 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

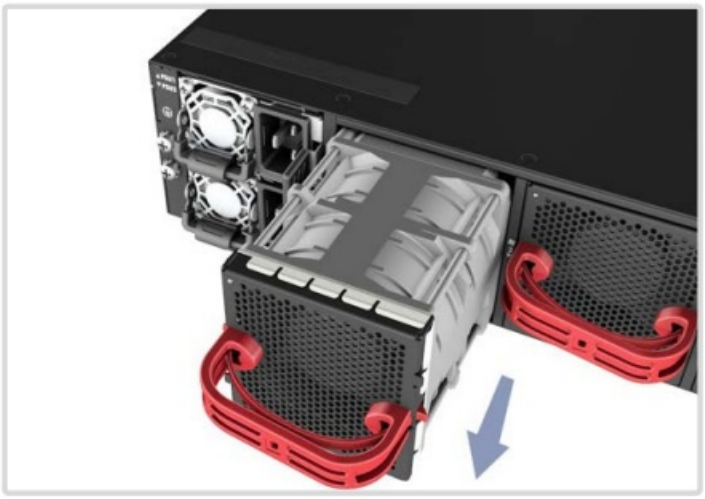
FRU Replacement

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. Attention: Pendant le fonctionnement du commutateur, le remplacement du ventilateur doit être effectué dans les deux minutes pour éviter que le commutateur ne s'arrête en raison de sa protection intégrée contre la surchauffe.

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

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

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 (#6 AWG/13.3 mm2, green with yellow stripe) (not included) to the grounding point on the device rear panel (maximum torque 10 kgf-cm (8.7 lb-in)). Then connect the other end of the wire to rack ground.

Connect Power

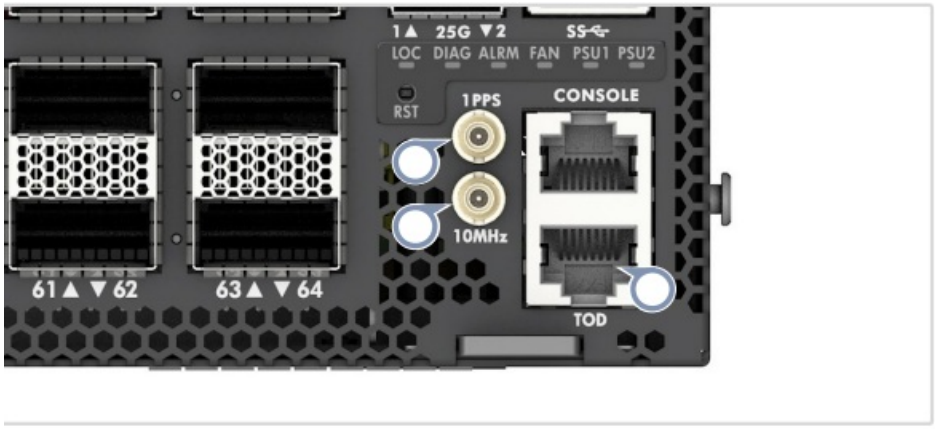
Install one or two AC PSUs and connect them to an AC power source.

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

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



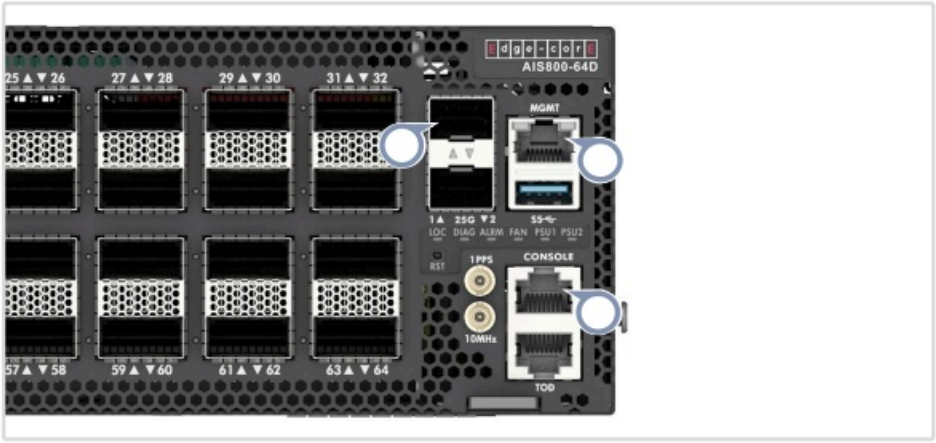
- **1PPS Port**

  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.

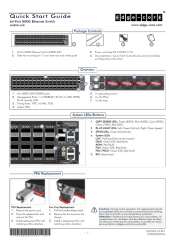
  Configure the serial connection: 115200 bps, 8 characters, no parity, one stop bit, 8 data bits, and no flow control.
- **Console cable pinouts and wiring:**

Device's RJ-45 Console	Null Modem	PC's 9-Pin DTE Port
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	20.2 kg (44.53 lb), with 2 PSUs and 4 fans installed
Temperature	Operating: 0° C to 40° C (32° F to 104° F) 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.
System Input Rating	
AC Input	200-240 VAC, 50/60Hz, 16 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
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)

Documents / Resources

	Edge-core AIS800-64D 64-Port 800G Ethernet Switch [pdf] User Guide AIS800-64D, AIS800-64D 64-Port 800G Ethernet Switch, 64-Port 800G Ethernet Switch, 800G Ethernet Switch, Ethernet Switch, 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**