



Edge-corE AS7946-74XKSB Ethernet Switch User Guide

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Edge-corE AS7946-74XKSB Ethernet Switch



Package Contents



1



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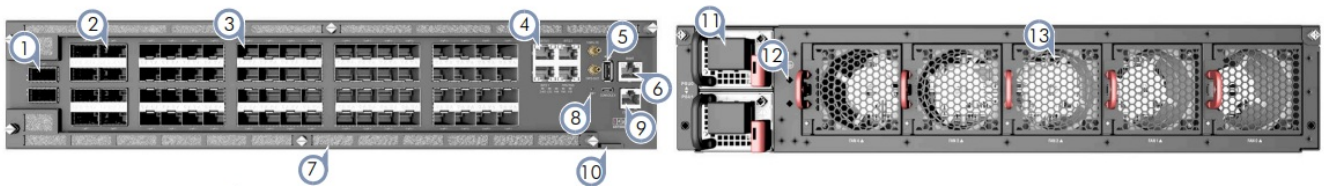
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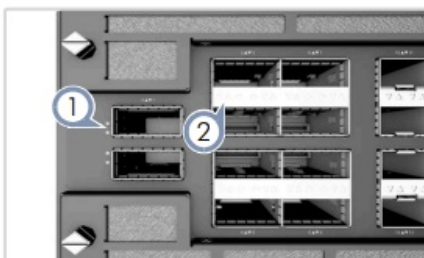
1. **AS7946:** 74XKSB
2. **Rack mounting kit:** 2 rack-rail assemblies and 20 screws
3. **Console cable:** RJ-45 to D-Sub
4. **Documentation:** Quick Start Guide (this document) and Safety and Regulatory Information

Overview



1. 2 x 100G QSFP-DD
2. 8 x 40G/100G QSFP28
3. 64 x 10G/25G SFP28
4. Timing ports: 3 x RJ-45 BITS ports, 1 x RJ-45 1PPS/ToD port, 1 x 1PPS connector, 1 x 10MHz connector
5. USB port
6. RJ-45 Management port
7. Air filters
8. Reset button
9. Console ports: 1 x Micro-USB, 1 x RJ-45
10. Product tag
11. DC terminal or AC power socket
12. Grounding point
13. 5 x fans

Front LEDs



1. **QSFP-DD Port LEDs:**
 - LED1 (top) — Blue (100G)
 - LED2 (bottom) — Blue (all lanes linked), Off (not all lanes linked), Blinking (activity)
2. **QSFP28 Port LEDs:**

- LED1 (left) — Blue (100G), Green (40G)
- LED2 (right) — Blue (link), Off (not all lanes linked), Blinking (activity)

3. SFP28 Port LEDs:

- LED1 (left) — Blue (25G), Green (10G)
- LED2 (right) — Blue (link), Blinking (activity)

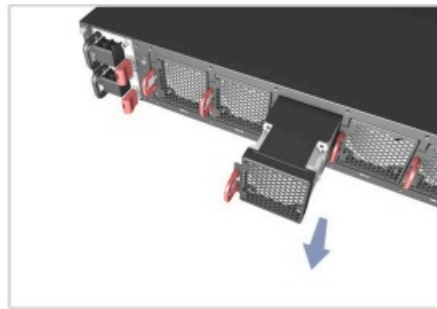
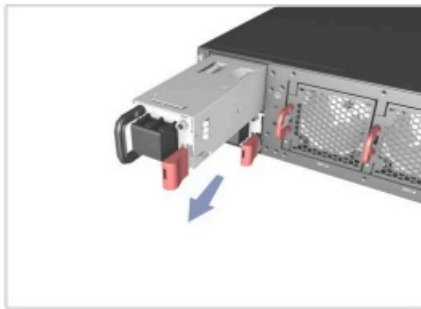
4. System LEDs:

- DIAG — Green (OK), Amber (fault detected)
- LOC — Flashes Amber when the command is activated
- FAN — Green (OK), Amber (fault)
- PS0 and PS1 — Green (OK), Amber (fault)

5. Management Port LEDs:

- RJ-45 OOB Port — Left (link), Right (activity)

FRU Replacement



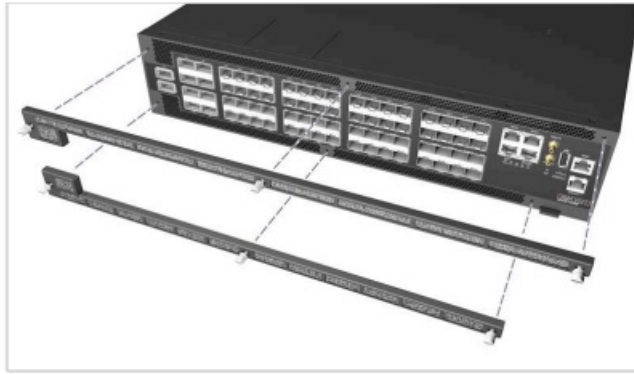
PSU Replacement

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. Press the release latch in the fan tray handle.
2. Pull out to remove the fan.
3. Install replacement fan with matching airflow direction.

Air Filter Replacement

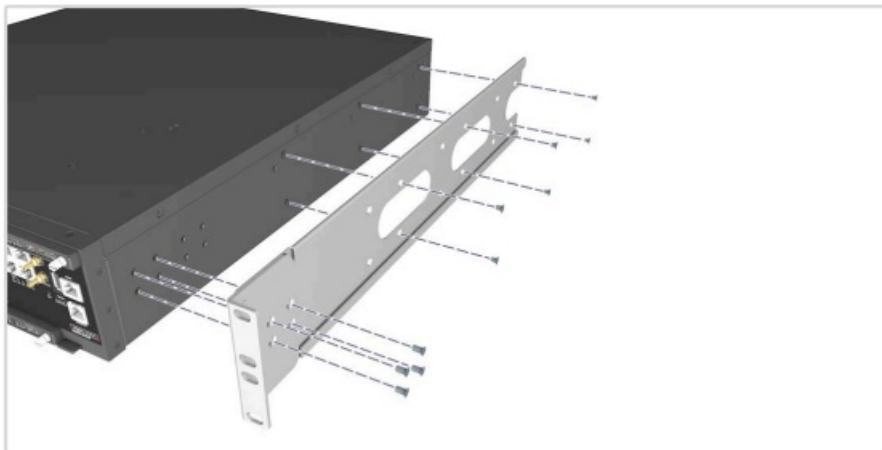


1. Unscrew the filter cover captive screws.
2. Remove the old filter and install a replacement filter.
3. Replace the filter cover and tighten the captive screws.

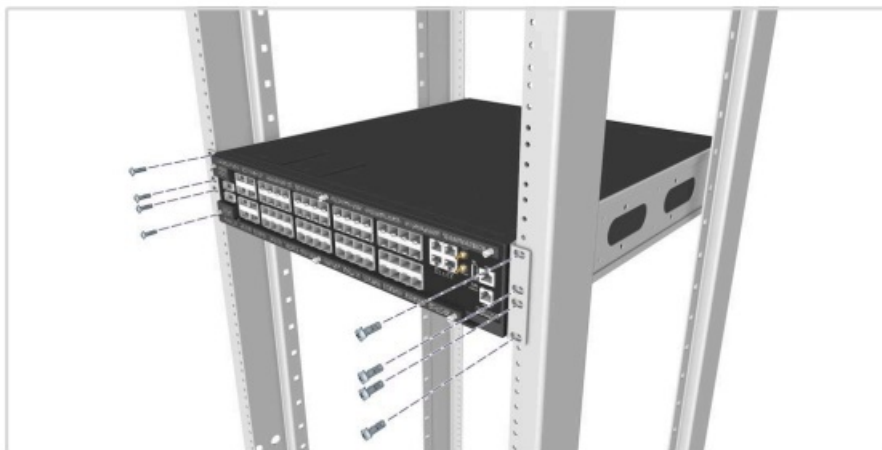
Warning: For a safe and reliable installation, use only the accessories and screws provided with the device. Use of other accessories and screws could result in damage to the unit. Any damages incurred by using unapproved accessories are not covered by the warranty.

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

Mount the Device



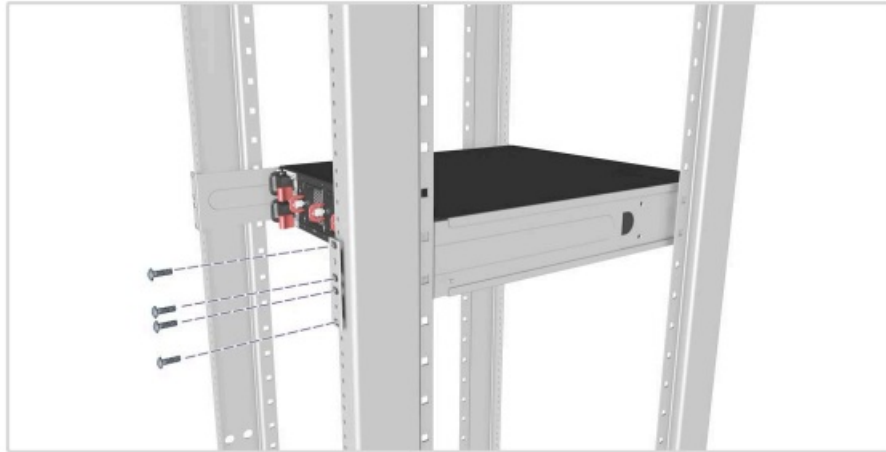
1. Separate the rack-rail assembly into two sections.
2. Use the included ten screws to attach the bracket to each side of the device.



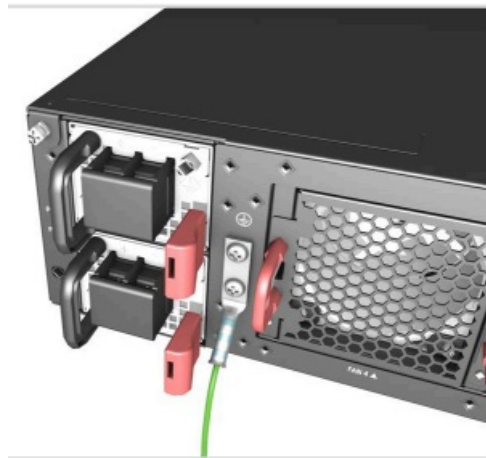
3. Slide the device into the rack.
4. Hold it in place and secure the rack-assembly to the front post using four screws.
5. While holding the device in place, slide the inner section of rack-rail assembly from the back until it fits the rear

post.

6. Secure the rack-rail assembly to the rear using four screws.



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).

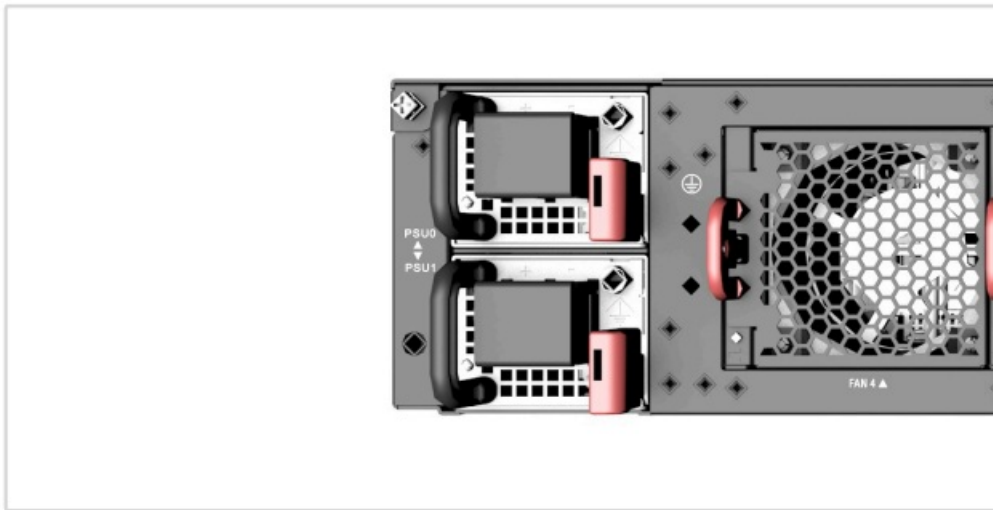
Attach Grounding Wire

Attach a lug (not provided) to a #8 AWG minimum grounding wire (not provided), and connect it to the grounding point on the device rear panel. Then connect the other end of the wire to rack ground.

Caution

- The chassis ground connection must not be removed unless all supply connections have been disconnected.
- The device must be installed in a restricted-access location. It should have a separate protective ground terminal on the chassis that must be permanently connected to a well grounded chassis or frame to adequately ground the device chassis and protect the operator from electrical hazards.

Connect Power



DC Power

Install two DC PSUs and then connect them to a DC power source.

Caution:

- Use a IEC/UL/EN 60950-1 and/or 62368-1 certified power supply to connect to a DC converter.
- All DC power connections should be performed by a qualified professional.

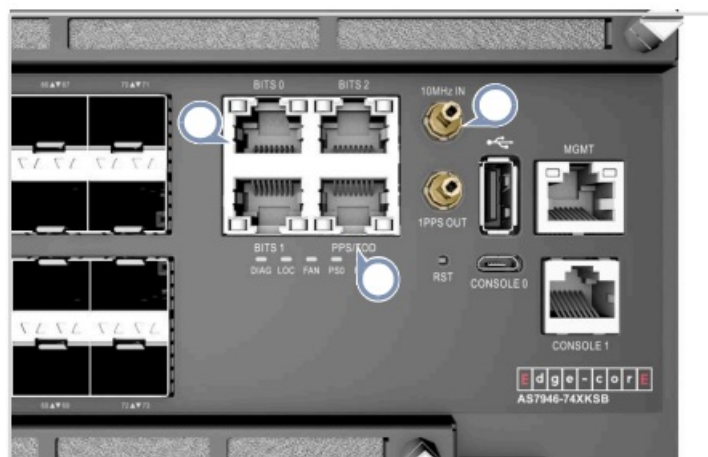
Note: Use # 8 AWG/ 6 mm² copper wire (for a -40 to -75 VDC PSU) to connect to a DC PSU.

1. Use the ring lugs included with the DC PSU.
2. DC return
3. -40 -75 VDC
4. Use a 8 AWG green/yellow ground wire to ground the DC PSU.

AC Power

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

Connect Timing Ports



- **RJ-45 BITS**

Use a Cat. 5e or better twisted-pair cable to synchronize the device.

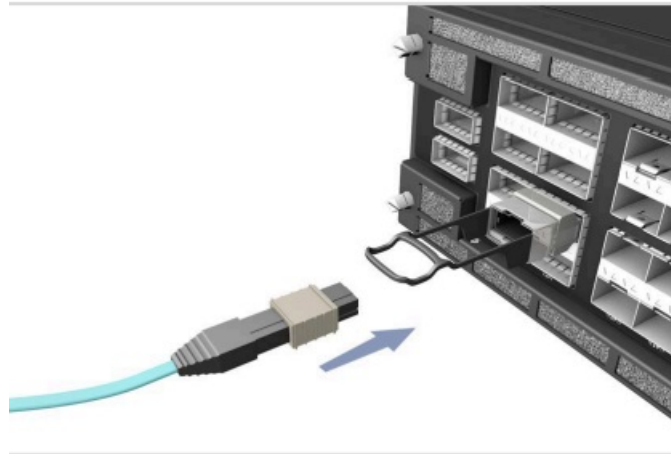
- **RJ-45 1PPS/ToD**

Use a Cat. 5e or better twisted-pair cable to connect the 1-pulse-per-second (1PPS) and Time of Day to other synchronized devices.

- **10MHz IN/1PPS OUT**

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

Make Network Connections



100G QSFP-DD Ports

Install transceivers and then connect fiber optic cabling to the transceiver ports. The following transceivers are supported in the QSFP-DD ports:

- Power class 8 up to 16.5W

100G QSFP28 Ports

Install transceivers and then connect fiber optic cabling to the transceiver ports. The following transceivers are supported in the QSFP28 ports:

- 100GBASE-SR4, LR4, CWDM4, DR1
- 40GBASE-SR4, LR4

Alternatively, connect DAC cables directly to the QSFP28 slots.

SFP28 Ports

Install transceivers and then connect fiber optic cabling to the transceiver ports. The following transceivers are supported in the SFP28 ports:

- 25GBASE-SR, LR
- 10GBASE-SR, LR, ER, ZR

Alternatively, connect DAC/AOC cables directly to the SFP28 ports.

Make Management Connections



MGMT RJ-45 Port

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

RJ-45 Console Port

Connect the included console cable and then configure the serial connection: 115200 bps, 8 characters, no parity, one stop bit, 8 data bits, and no flow control.

Micro-USB Console Port

Connect using a standard USB to Micro-USB cable.

Hardware Specifications

Interfaces

Management

- 1 x RJ-45 Console port
- 1 x RJ-45 10/100/1000BASE-T Management port
- 1 x USB2.0 Port
- 1 x Micro USB Console port

Network

- 64 x 10G/25G SFP28
- 8 x 40G/100G QSFP28
- 2 x 100G QSFP-DD

Chassis

- **Size (WxDxH):** 440 x 480 x 87 mm (17.3 x 18.9 x 3.4 in)
- **Weight:** 15.3 kg (33.73 lb)
- **Operating Temperature:** 0° C to 45° C (32° F to 113° F)
- **Storage Temperature:** -40° C to 70° C (-40° F to 158° F)
- **Humidity:**
 - **Operating:** 5% to 85% (non-condensing)

- **Storage:** 5% to 95% (non-condensing)
- **Power:** 527 W at 25° C (77° F)
- **Consumption:** 723 W at 45° C (113° F)

48 VDC PSU

- **DC Input:** -40 -75 VDC, 40 A max

AC PSU

- **AC Input:** 100-120 VAC, 50-60 Hz, 12 A Max. 200-240 VAC, 50-60 Hz, 7.5 A Max.

Regulatory Compliances

Emissions

- EN 55032:2015+A1:2020
- EN 61000-3-2:2019+A1:2021
- EN 61000-3-3:2013+A1:2019
- FCC Part 15 subpart B Class A CCC GB/T 9254.1-2021 Class A BSMI VCCI

Immunity

EN 55024:2010+A1:2015 EN 55035:2017+A11:2020 IEC 61000-4-2/3/4/5/6/8/11

Safety: UL/CUL (CAN/CSA 22.2 No 62368-1 & UL 62368-1) CB (IEC/EN 60950-1 & IEC/EN 62368-1) CCC (GB4943.1-2011) BSMI VCCI

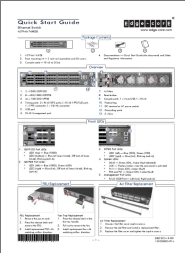
Taiwan RoHS CNS 15663

Warranty Information and Technical Support

Registering your product enables you to receive a more efficient warranty service. Be sure to register at www.edge-core.com.

www.edge-core.com

Documents / Resources

	<p>Edge-core AS7946-74XKSB Ethernet Switch [pdf] User Guide AS7946-74XKSB, AS7946-74XKSB Ethernet Switch, Ethernet Switch</p>
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References

-  [Edgecore Networks](#)

[Manuals+](#), [home](#) [privacy](#)