Package Contents

EdgeSwitch

Mounting Screws (Qty. 4)

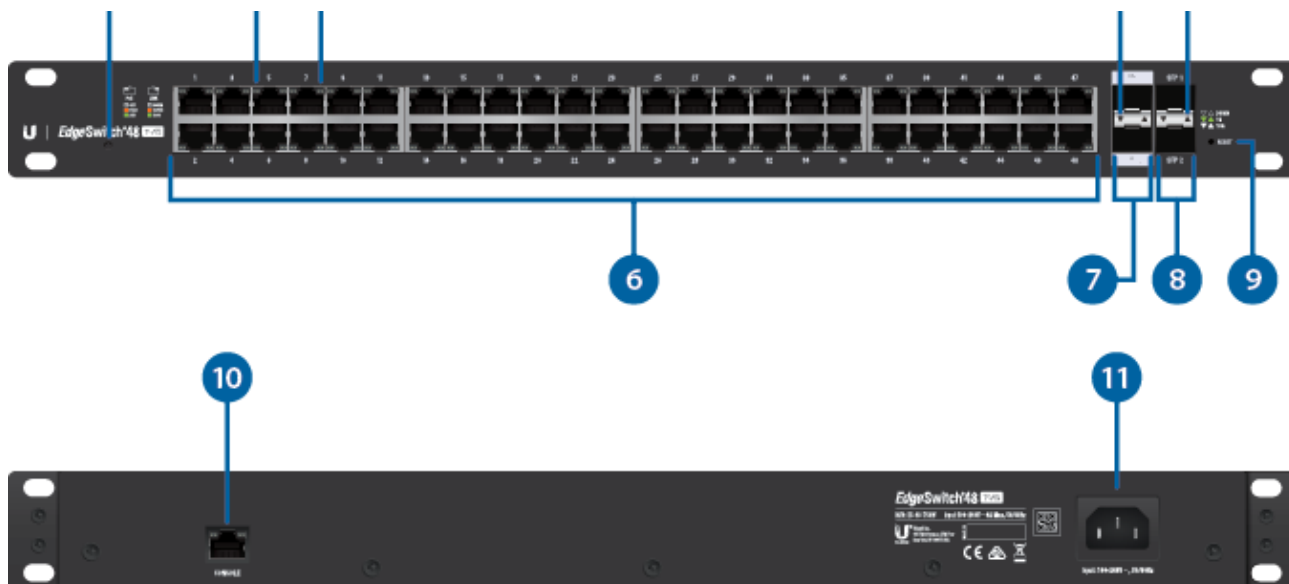Cage Nuts (Qty. 4)

Power Cord

Installation Requirements

- Phillips screwdriver
- Standard-sized, 19" wide rack with a minimum of 1U height available
- For indoor applications, use Category 5 (or above) UTP cabling approved for indoor use.
- For outdoor applications, shielded Category 5 (or above) cabling should be used for all wired Ethernet connections and should be grounded through the AC ground of the power supply.

  We recommend that you protect your networks from harmful outdoor environments and destructive ESD events with industrial-grade, shielded Ethernet cable from Ubiquiti. For more details, visit: **ui.com/toughcable**

  Note: Although the cabling can be located outdoors, the EdgeSwitch itself should be housed inside a protective enclosure.

Hardware Overview

1 System LED	
Note: The System LED functionality has been updated with firmware v1.8.0. We recommend that you update the EdgeSwitch to the latest firmware.	
Flashing White	Bootup in progress.
White	Ready for use, not connected to Ubiquiti® Network Management System (UNMS™). See **"UNMS Management"**.
Blue	Ready for use, connected to UNMS.
Steady Blue with Occasional Flashing	Ready for use, unable to connect to UNMS, check connection to UNMS server.
Quickly Flashing Blue	Used to locate a device in UNMS.
Alternating Blue/White	Firmware upgrade in progress.

2 RJ45 PoE LED (Ports 1 - 48)	
Off	No PoE
Amber	IEEE 802.3af/802.3at
Green	24V Passive

3 RJ45 Speed/Link/Activity LED (Ports 1 - 48)	
Off	No Link
Amber	Link Established at 10/100 Mbps

Green	Link Established at 1000 Mbps (1 Gbps) Flashing Indicates Activity

④ SFP+ Speed/Link/Activity LED (Ports 1 - 2)

Off	No Link
Green	Link Established at 1 Gbps Flashing Indicates Activity
White	Link Established at 10 Gbps Flashing Indicates Activity

⑤ SFP Speed/Link/Activity LED (Ports 1 - 2)

Off	No Link
Green	Link Established at 1 Gbps Flashing Indicates Activity

⑥ RJ45 (Ports 1 - 48)

RJ45 ports support Power over Ethernet (PoE) and 10/100/1000 Ethernet connections.

⑦ SFP+ (Ports 1 - 2)

Hot-swappable SFP+ ports support 1/10 Gbps connections.

⑧ SFP (Ports 1 - 2)

Hot-swappable SFP ports support 1 Gbps connections.

⑨ Reset Button

Click here to learn how to reset an EdgeSwitch to factory defaults.

⑩ Console Port

RJ45 serial console port for Command Line Interface (CLI) management.

⑪ Power Port

Connect the included Power Cord to the Power port.
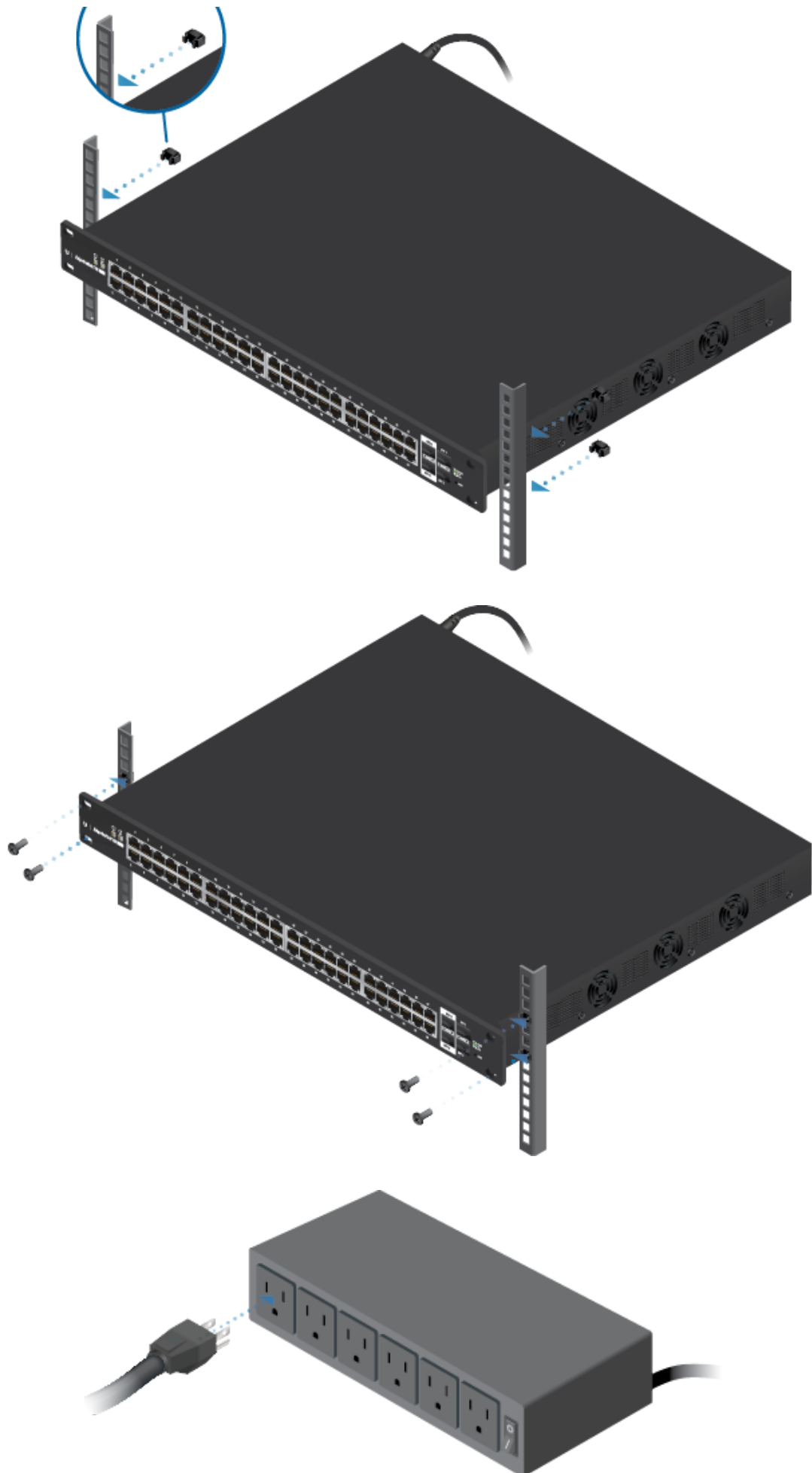
Hardware Installation

1.

2.

OR

3.

Connecting Ethernet

Note: The PoE settings for ports 1-48 are set to PoE+ auto by default, so 802.3af/at devices can be plugged in and automatically receive PoE. For instructions on how to enable 24V passive PoE, refer to **"Configuring PoE Settings"**.

Connecting SFP+/SFP

These ports support the specified module types at the following speeds:

Ports	SFP+ Module Type	SFP Module Type
SFP+ 1-2	10 Gbps	1 Gbps
SFP 1-2	(Not supported)	1 Gbps

1.

2.

3.

For information about compatible fiber SFP+ or SFP modules, visit:
ubnt.link/SFP_DAC_Compatibility

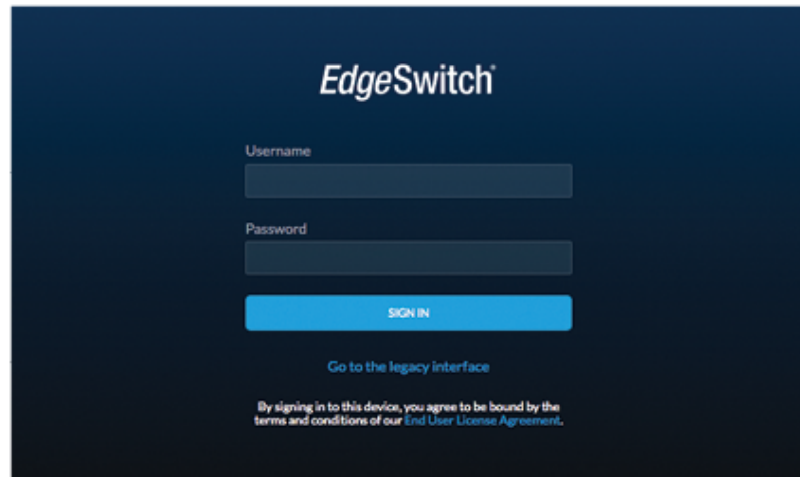# Accessing the Configuration Interface

The EdgeSwitch is set to DHCP by default, so it will try to automatically obtain an IP address. If that fails, then it will use the default fallback IP address, 192.168.1.2. Proceed to the appropriate section, DHCP or **"Fallback IP Address"**:
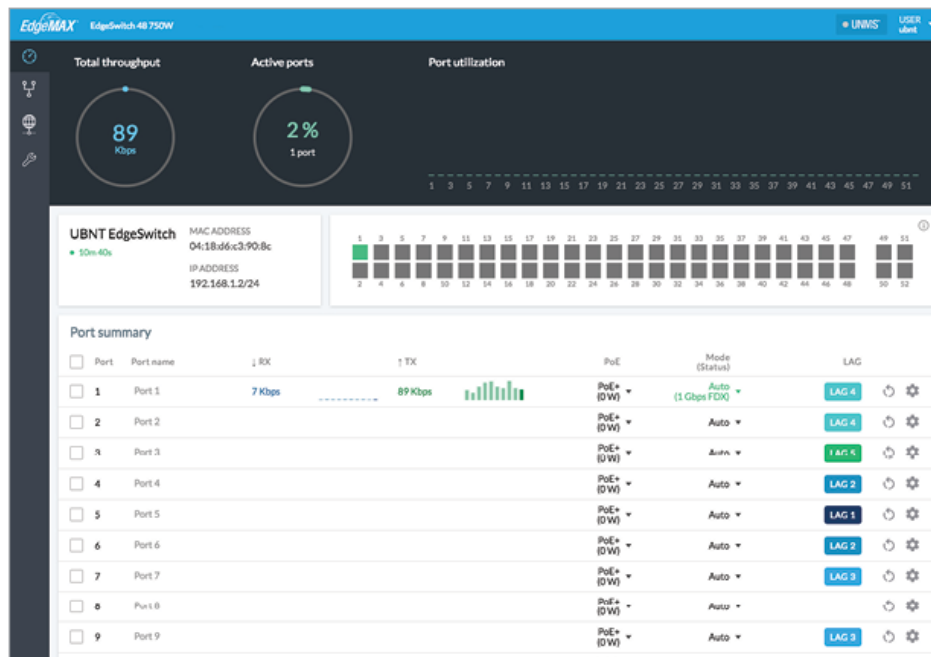
DHCP

Use one of the following methods:

- Set up the DHCP server to provide a specific IP address to the EdgeSwitch based on its MAC address (on the label).
- Let the EdgeSwitch obtain an IP address and then check the DHCP server to see which IP address was assigned.

1. Launch your web browser. Type the appropriate IP address in the address field. Press enter (PC) or return (Mac).

2. Enter ubnt in the Username and Password fields. Click Sign In.

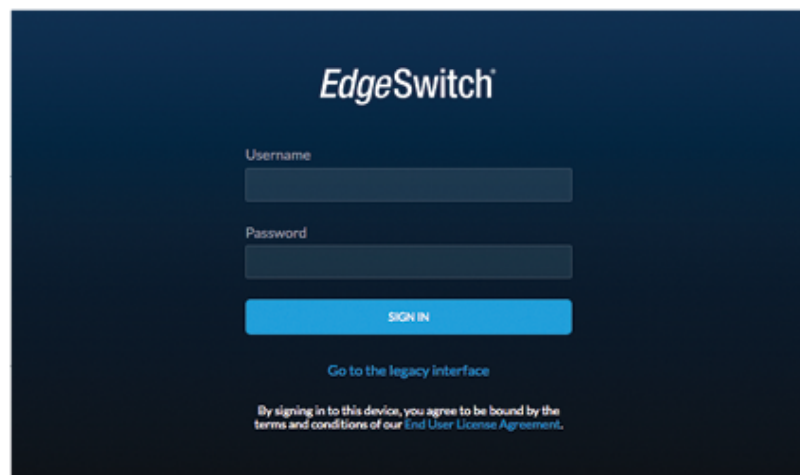3. The EdgeSwitch Configuration Interface will appear. Customize additional settings as needed.

For more information on PoE configuration, refer to **"Configuring PoE Settings"**. For more information, refer to the EdgeSwitch documentation, which is available at **ui.com/download/edgemax**
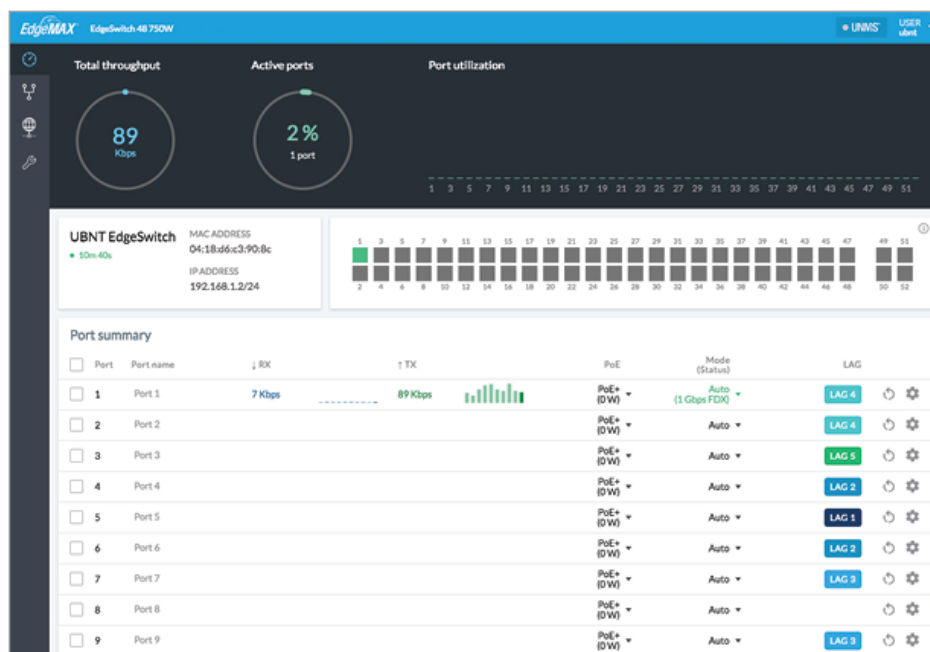
Fallback IP Address

1. Ensure that your computer (or other host machine) is connected to the EdgeSwitch.

2. Configure the Ethernet adapter on your host system with a static IP address on the 192.168.1.x subnet.

3. Launch your web browser. Type the appropriate IP address in the address field (192.168.1.2 is the default fallback IP address). Press enter (PC) or return (Mac).

4. Enter ubnt in the Username and Password fields. Click Sign In.

5. The EdgeSwitch Configuration Interface will appear. Go to Settings ⊕.

6. Change the IP Address to a unique IP address. Click Apply.

Note: If you change the IP settings, then the session will be cut off, and you will need to reconnect to the EdgeSwitch using the new IP address.

Customize additional settings as needed. For more information on PoE configuration, refer to **"Configuring PoE Settings"**.

UNMS Management

You can manage your device using UNMS, which lets you configure, monitor, upgrade, and back up your devices using a single application. Get started at **www.unms.com**
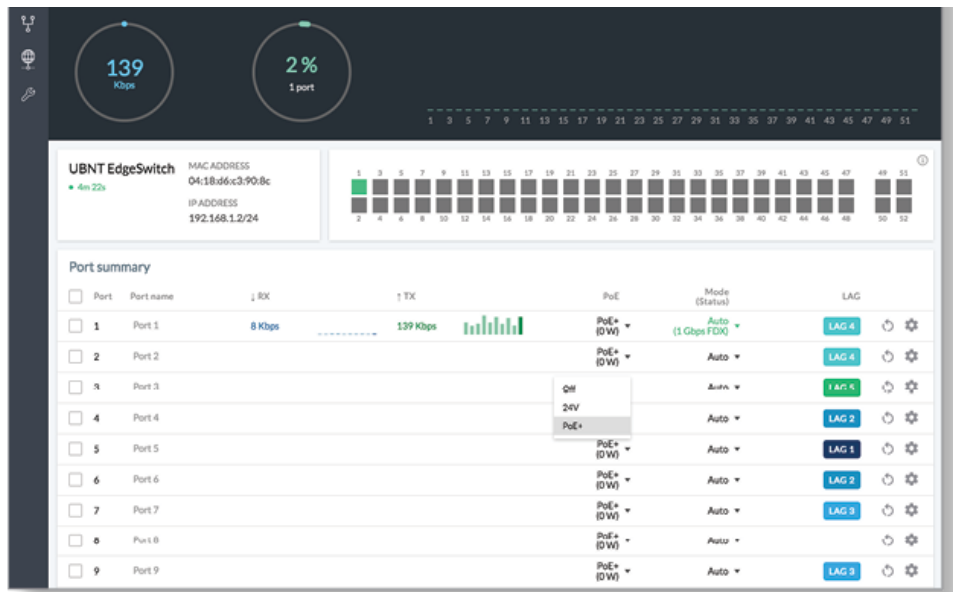
Configuring PoE Settings

The PoE settings for ports 1-48 are set to PoE+ by default, so 802.3af/at devices can be plugged in and automatically receive PoE.

WARNING: Before activating 24V passive PoE, ensure that the connected device supports PoE and the supplied voltage.

1. Go to Dashboard ⟳ .
2. For the Ethernet port you want to configure, click the PoE drop-down menu.

3. Select the appropriate mode: Off, 24V, or PoE+.

For more information, refer to the EdgeSwitch documentation, which is available at ui.com/download/edgemax

Specifications

ES-48-500W/ES-48-750W	
Dimensions	485 x 43.7 x 374.6 mm (19.09 x 1.72 x 14.75")

Weight
    ES-48-500W
    ES-48-750W
	
	6.1 kg (13.5 lb)
	6.5 kg (14.3 lb)

Total Non-Blocking Line Rate	70 Gbps

Max. Power Consumption
    ES-48-500W
    ES-48-750W
	
	500W
	750W

Power Method	100-240VAC/50-60 Hz, Universal Input

Power Supply
    ES-48-500W
    ES-48-750W
	
	AC/DC, Internal, 500W DC
	AC/DC, Internal, 750W DC

LEDs Per Port
    Serial Console Port
    RJ45 Data Ports
    SFP Data Ports
	
	N/A
	PoE, Speed/Link/Activity
	Speed/Link/Activity

Interfaces
    Networking Interfaces
 	
    Management Interface
	
	(48) 10/100/1000 Mbps RJ45 Ethernet Ports
	(2) 1/10 Gbps SFP+ Ethernet Ports
	(2) 1 Gbps SFP Ethernet Ports
	(1) RJ45 Serial Port, Ethernet In/Out Band

Rack-Mount	Yes, 1U High
ESD/EMP Protection	Air: ± 24 kV, Contact: ± 24 kV

Shock and Vibration	ETSI300 019 1.1 Standard
Operating Temperature	-5 to 40° C (23 to 104° F)
Operating Humidity	5 to 95% Noncondensing
Certifications	CE, FCC, IC

PoE Per Port	
PoE Interfaces	POE+ IEEE 802.3af/at (Pins 1, 2+; 3, 6-) 24VDC Passive PoE (Pins 4, 5+; 7, 8-)
Max. PoE+ Wattage per Port by PSE	34.2W
Voltage Range 802.3at Mode	50-57V
Max. Passive PoE Wattage per Port	17W
24V Passive PoE Voltage Range	20-27V

Safety Notices

1. Read, follow, and keep these instructions.

2. Heed all warnings.

3. Only use attachments/accessories specified by the manufacturer.

⚠️ **WARNING:** Failure to provide proper ventilation may cause fire hazard. Keep at least 20 mm of clearance next to the ventilation holes for adequate airflow.

⚠️ **WARNING:** To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.

⚠️ **WARNING:** Do not use this product in location that can be submerged by water.

⚠️ **WARNING:** Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.

Electrical Safety Information

1. Compliance is required with respect to voltage, frequency, and current requirements indicated on the manufacturer's label. Connection to a different power source than those specified may result in improper operation, damage to the equipment or pose a fire hazard if the limitations are not followed.

2. There are no operator serviceable parts inside this equipment. Service should be provided only by a qualified service technician.

3. This equipment is provided with a detachable power cord which has an integral safety ground wire intended for connection to a grounded safety outlet.

    a. Do not substitute the power cord with one that is not the provided approved type. Never use an adapter plug to connect to a 2-wire outlet as this will defeat the continuity of the grounding wire.

    b. The equipment requires the use of the ground wire as a part of the safety certification, modification or misuse can provide a shock hazard that can result in serious injury or death.

    c. Contact a qualified electrician or the manufacturer if there are questions about the installation prior to connecting the equipment.

e. Protective bonding must be installed in accordance with local national wiring rules and regulations.

Limited Warranty

ui.com/support/warranty

The limited warranty requires the use of arbitration to resolve disputes on an individual basis, and, where applicable, specify arbitration instead of jury trials or class actions.

Compliance

FCC

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions.

1. This device may not cause harmful interference, and

2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operations of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

ISED Canada

CAN ICES-3(A)/NMB-3(A)

Australia and New Zealand

Warning: This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

CE Marking

CE marking on this product represents the product is in compliance with all directives that are applicable to it.

$$\mathsf{C}\,\mathsf{E}$$

WEEE Compliance Statement

Declaration of Conformity