Quick Installation Guide

24-port PoE switch with 2 copper Gigabit ports and 2 Gigabit SFP ports (af Version 15.4W)



Table of Contents

- Introduction …….. Page 2
- Power Over Ethernet (PoE) & Features ……..…….. Page 2
- Unpacking and Installation …… …….. Page 3
- System Requirement……. …….. Page 3
- Front Panel /LED…… Page 4
- Hardware Installation… ……. ……..…….. Page 5
- Technical Specification……..... Page 6
- Troubleshooting ……..……..……..……... Page 7

•FCC Warning:

This device has been tested and found to comply with the regulations for Class B digital equipment. Pursuant to Part 15 of 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 users guide, may cause harmful interference to radio communications. Operation of this devices in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his/her own expense.

•CE Mark Warning:

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

•UL Warning:

1> Elevated Operating Ambient Temperature- If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater then room ambient. Therefore, Consideration should be given to installing the equipment in an environment compatible with manufacturer's maximum rated ambient temperature.
2> Reduced Air flow-installation of equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
3> Mechanical Loading- mounting of the equipment in the rack should be such as that a hazardous, Conditions is not achieved due to uneven mechanical loading.

IMPORTANT

This users guide contains information on the limitations regarding product use and function and information on the limitations as to liability of the manufacturer. Read the entire guide carefully.

1. Introduction

The MODEL is an unmanaged 10/100Mbps Ethernet PoE switch designed to enhance workgroup performance while providing a high level of flexibility. It provides 24 10/100Mbps ports and 24 IEEE802.3af Power over Ethernet (PoE) ports for workstation, plus 2 copper Gigabit ports and 2 Gigabit SFP ports for workgroup and departments.

The *MODEL* is a Power Source Equipment (PSE) and fully compatible with Powered Devices (PD) that comply with the IEEE 802.3af PoE standard. The *MODEL PoE Switch* enables users to attach IEEE802.3af compliant devices such as wireless Access Points (APS), VOIP phone, IP camera, printer and Network Attached Storage (NAS) directly to the *24 -ports 10/100 Ethernet PoE* Switch plus 2 copper Gigabit ports and 2 Gigabit SFP ports without requiring additional power on the network. The unit is designed for home and small business users in mind and is ideal for installations where AC power is not available or no cost-effective.

No configuration is required and installation is quick and easy. Support for Auto – MDI / MDI-X on all of the ports eliminate the need for crossover connection to another switch or HUB. Auto - Negotiation on each port senses the link speed of a network device (either 10 or 100) and intelligently adjusts for compatibility and optimal performance.

* 1-Year Limited Warranty for switch and 1-Year Limited Warranty for the power adaptor are available.
* This device is designed for indoor use. Do not use outdoors.
* included are the installation manual.

2. **Power over Ethernet (PoE) & Features**

•Power Over Ethernet (PoE):

Power over Ethernet (PoE) integrates 48V power and data onto one single cable, eliminating the need to have AC power available at all equipment locations. Power and Data are integrated onto the same cable, supporting category 5/5e up to 100 Meters. PoE provides power to PoE compatible devices, such as VOIP telephones, wireless LAN access points, and IP security cameras.PoE devices are ready in the market, saving up to 50% of overall installation cost by eliminating the need to install separate electrical wiring and power outlets.

•Features:

- 24 x 10/100Mbps Auto-negotiation Fast Ethernet RJ-45 ports with 24-Ports PoE function (port 1 ~ port 24).
- 2 x 10/100/1000MBase_T copper RJ-45 ports + 2 x 10/100/1000MBase_T SFP ports.
- Compliant with IEEE 802.3af.
- Supports PoE power up to 340W for all PoE ports.
- Supports PoE IEEE802.3af compliant Powered Device (PD).
- Each port supports auto MDI/MDIX, so there is no need to use cross-over cables.
- Full/half duplex transfer mode for each port.
- Wire speed reception and transmission.
- Up to 4K unicast address entities per device. Self-learning, and table aging.
- 2.75Mb RAM packet buffer.

3. Unpacking and Installation



Open the received cartons of the *MODEL* and carefully unpack its contents.
The cartons should Included following items:

- One *MODEL 24+2 10/100/1000M Ethernet PoE Switch*.
- 2 SFP module (Optional).
- One AC to DC Power Adaptor.
- Mounting kit (two brackets and screws).
- Quick Installation Guide.

If any item is found missing or damaged, Please contact your local reseller for replacement.

4. System Requirements

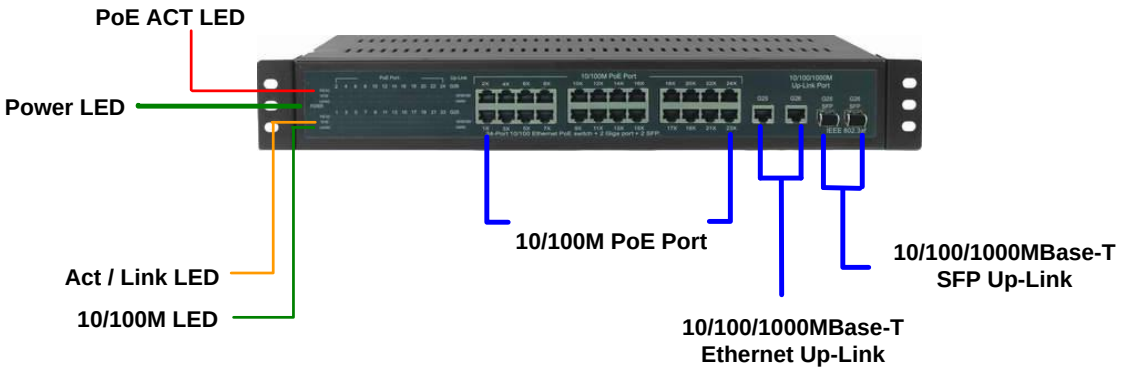
•**Installation:**

The installation of the *24+2-ports 10/100/1000M PoE Switch* requires the following steps:

- A computer with a 10/100/1000MBase-T network adapter installed.
- The surface must support at least 6.0Kg (13.2 lbs) for the switch.
- The power adaptor should be within 1.5 meters (5 feet) of the switch.
- Visually inspect the DC power cord and make sure that is fully secured to the power outlet.
- Make sure that there is proper heat dissipation from and adequate ventilation around the switch. Do not place heavy objects on the switch.

5. Front Panel/LED/PoE Network

Front Panel



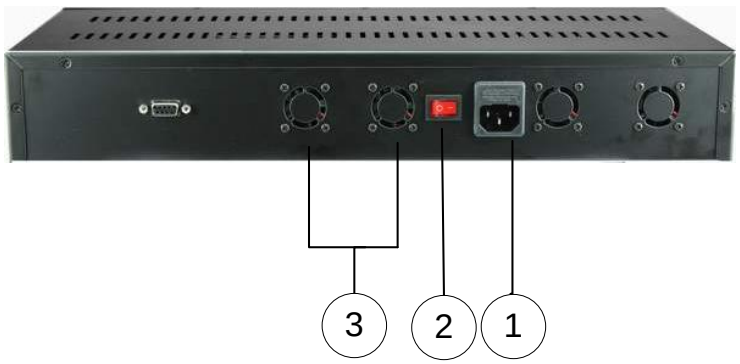
LED Display

●: Light ☼: Blinking Slowly O: Inactive ✱: Blinking Fast	
Power LED	LED on: Power ON / LED off: Power off.
10/100M (1-24)	● : Link for 100Mbps, ☼ : Link for 10Mbps.
LINK/ACT (1-26)	● : Link in full duplex mode and no activity ✱: Activity ongoing. ☼ : Link in half duplex mode and no activity O : Link down.
10/100/1000M (24)	● : Link for 1000Mbps, ☼ : Link for 100Mbps, O: Link for 10Mbps.
Gigabit Act / Link(25-26)	● : Link in full duplex mode and no activity ✱: Activity ongoing. ☼ : Link in half duplex mode and no activity O : Link down.
PoE (1 to 24)	LED on: The PoE power device (PD) is connected and the port is supplying power successfully.
	LED off: no PoE power device (PD) connected.

Interface Port

Port 1 -24 PoE	10/100MBase-T Ethernet PoE Port 1 – Port 24. 8P8C RJ-45.
Port 25-26 1000MBase-T	10/100/1000MBase-T Data Up-Link port 25-26 8P8C RJ-45.
Port 25-26 1000M SFP	10/100/1000MBase-T Data Up-Link port 25-26 SFP LC type.

Rear Panel

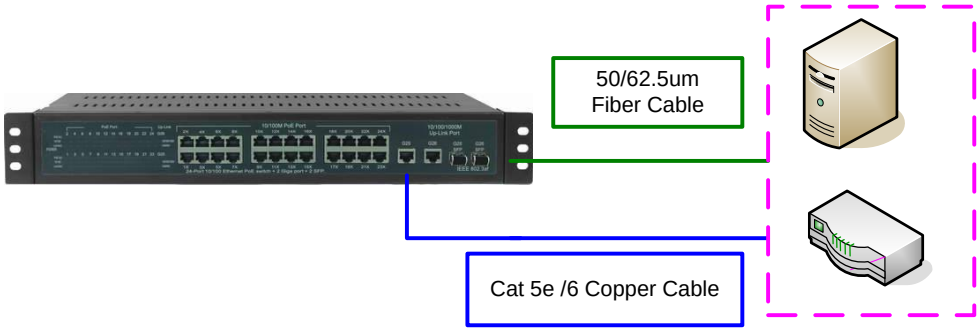


1	AC Power Input Outlet: Input 100V~240VAC 2.0A 50-60Hz.
2	Power Switch
3	Fan Window

A: Power: Connect the AC Power Cord to the MODEL and then to a power outlet.

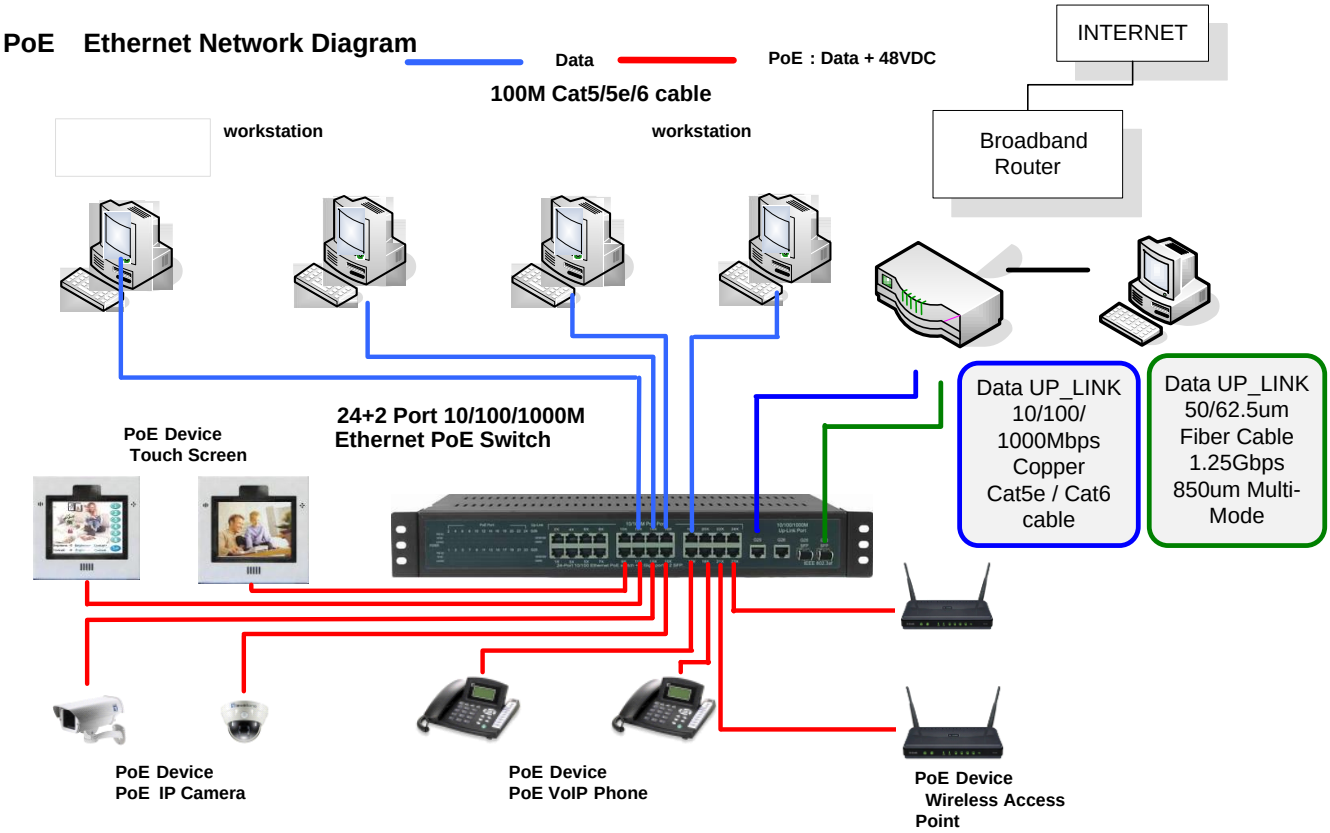


B: Up-Link Connect a CAT-5, 5e 6 RJ-45 network cable or 50/62.5um Fiber cable from the Computer or Router to an Up-Link port.



Connecting Ethernet Cables and Fiber Cable

PoE Ethernet Network Diagram



7. **Technical Specifications**

Standard	IEEE 802.3 10BASE-T Ethernet.
	IEEE 802.3u 100BASE-TX Fast Ethernet.
	IEEE 802.3x Full Duplex Flow Control.
	IEEE 802.3af Power over Ethernet.
	IEEE 802.3ab 1000Base-T Gigabit Ethernet (twisted-pair copper).
Protocol	CSMA/CD.
Data Transfer Rate	Ethernet: 10Mbps (half-duplex), 20Mbps (full-duplex).
	Fast Ethernet: 100Mbps (half-duplex), 200Mbps (full-duplex).
	Gigabit Ethernet: 2000Mbps (full duplex).
Network Cables	10Base-T: 2-pair UTP Cat 3, 4, 5 up to 100 meters.
	100Base-T : 2-pair UTP Cat 5, 5e up to 100 meters.
	1000Base-T: 4-pair UTP Cat5e 6, up to 100meters.
	50/62.5um LC signal model or Multi model fiber cable.
Number of Ports	24 x 10/100Mbps auto-MDIX RJ-45 ports with 24 PoE enabled ports.
PoE power on RJ-45	Power +: pin 3 & pin 6 ; Power –: pin 1 & pin 2.
Power Supply	Input: 100V ~ 240VAC, 50Hz ~ 60Hz. Output: 48VDC 7.3A(350W).

Power Consumption	15.0 watts (max with no PD device connected).
	335 watts (350W Power).
Temperature	Operation: 0℃ ~ 40 ℃ or 32℉ ~ 104 ℉.
	Storage Temperature: -10℃ ~ 70 ℃ or 14℉ ~ 158 ℉
Humidity	Relative Humidity: 5% - 95% .
Dimensions	430mm W x 256mm D x 66.4mm H.
EMI	FCC Class B, CE Mark Class B.
Safety	110VAC to 240VAC power supply UL listed.
RAM buffer	2.75Mb bytes per device.
Filtering Address Table	4K entries per device.
Packet Filtering Forwarding Rate	10Mbps Ethernet: 14,880/pps. 100Mbps Ethernet: 148,800/pps. 1000MBase-T Ethernet: 1,488,000/pps.
MAC address Learning	Automatic update.
Transmission Method	Store – and – Forward.

8. **Troubleshooting**

1> After connecting the Switch to a power outlet, the LEDs do not turn on.

Check the connection of the power cord to the **PoE Switch** and the power outlet. Check that the power outlet is receiving power.

2> When I connect a computer to the Switch's port, the Link/ACT LED turns on, but the 100Mbps LED remains off.

When the 100Mbps LED is off, the computer's connection speed is 10Mbps.

3> After I connect my PCs to the Switch, I am unable to share files.

1. Check the LEDs on the Switch. Make sure the **Link/ACT LED** is on.
2. Check the network cable. The minimum length of the cable is 1.5 meters and the maximum length of the cable is 100 meters.
3. Disable any software firewall program.
4. Verify that you have file sharing enabled. Please contact your Operating System support for more information.

4> After I connect my PCs to the Switch, I can only get onto the Internet from one computer.

The Switch is not designed to share Internet between multiple computers. You need to get an Internet router**.**

5> Where is the uplink port located on the Switch?

Since all the ports on the Switch are Auto-MDIX, any of the ports can be used as an uplink port. If you still encounter problems or have any questions regarding this PoE switch please contact your local Technical support department.