

# 1 Packing List

Please check the following items after unpacking, if any missing, please contact your local dealer.

No.	Items	Quantity
1	Switch	1 pc
2	AC Power Cable	1 pc
3	Mounting Accessory	1 set
4	Quick Installation Guide	1 pc

# 2 Safety Information

Before performing an operation, read the following operation instructions and precautions to be taken, and follow them to prevent accidents.

## 2.1 General Requirements

- Only qualified and skilled personnel must install, configure, and unmount the device. The device must not be disassembled.
- When operating the device, obey the local safety regulations. The safety precautions provided in the document are supplementary and shall be in compliance with the local safety regulations.
- When operating the device, in addition to the precautions (please see the notes below), follow the specific safety instructions.
- The installation and maintenance personnel need to understand the basic safety precautions to be taken.
- Do not block the ventilation while the device is running. Keep a minimum distance of 5 cm from the ventilation to the walls or the other objects that block the ventilation.
- Do not operate the device in an area that exceeds the maximum recommended ambient temperature of 50°C.
- Do not place the device in the environment that has inflammable and explosive air or fog. Do not perform any operation in this environment.

## 2.2 Electric Safety

- During the installation of the AC power supply facility, follow the local safety regulations. The personnel who install the AC facility must be qualified to perform high voltage and AC operations.
- Before touching the device or hand-operating parts, wear a grounded electrostatic discharge (ESD) wrist strap. It can prevent the sensitive components from damage by the static electricity in the human body.

## 2.3 Optical Safety

- When handling optical fibers, do not stand close to, or look at the optical fiber outlet directly with unaided eyes.
- Cutting and splicing fibers must be performed by the trained personnel only.
- Before cutting or splicing a fiber, ensure the fiber is disconnected from the optical source. After disconnecting the fiber, use protecting caps to protect all the optical connectors.

# 3 Product Introduction

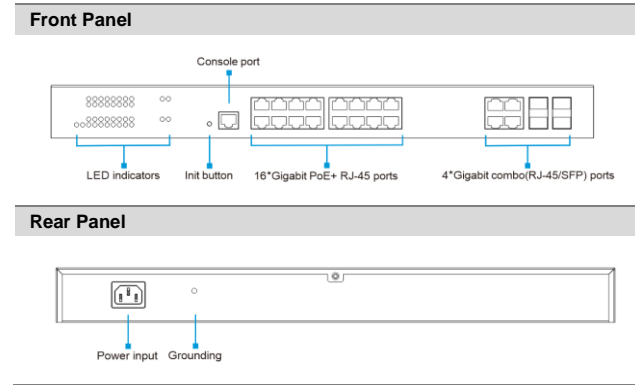
## 3.1 Overview

The product of this series is 16-Port/24-Port Gigabit PoE+ 4-Port Gigabit Combo L2 Managed Ethernet Switch. This series switches provide 16/24\*10/100/1000Mbps Ethernet RJ-45 ports, 4\*100/1000Mbps combo(RJ-45/SFP) ports. It meets IEEE 802.3af/at standard. All downlink RJ-45 ports support Power-over-Ethernet(PoE+), which can deliver up to 30W power per port. The switch has extensive L2 management functions, such as 802.1Q VLAN, ACL, LAG, loop detection and SNMP. It can be easily managed via a WEB GUI, or CLI (telnet/console). It is easy to use, Plug-and-Play, can be widely used in video security monitoring system, network project, etc. This series contains three types:

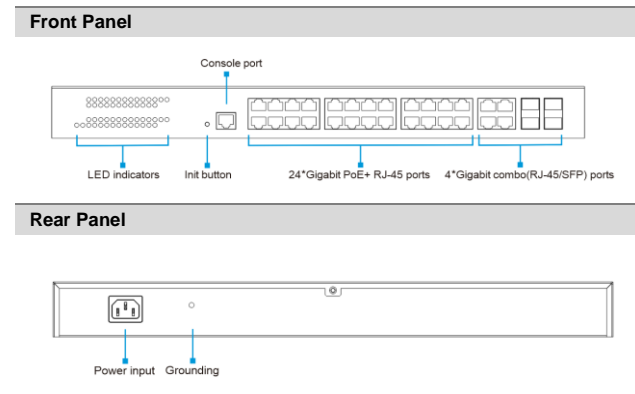
- 16-Port Gigabit PoE+ 4-Port Gigabit Combo L2 Managed Ethernet Switch
- 24-Port Gigabit PoE+ 4-Port Gigabit Combo L2 Managed Ethernet Switch(Power Consumption: 280W)
- 24-Port Gigabit PoE+ 4-Port Gigabit Combo L2 Managed Ethernet Switch (Power Consumption: 450W)

## 3.2 Hardware Introduction

16-Port Gigabit PoE+ 4-Port Gigabit Combo L2 Managed Ethernet Switch



24-Port Gigabit PoE+ 4-Port Gigabit Combo L2 Managed Ethernet Switch



### Led Indicators Instructions

Indicators	Status	Descriptions	
PWR	Power supply indicator	Solid on Off	Power Supply is on. Power Supply is off.
	SYS	System working indicator	Solid on
Blink			The system works normally
Off			No PoE Power output.
Link	Port state indicator	Solid on	The port is linking normally.
		Blink	The port is transmitting or receiving data.
		Off	The port links down.
PoE	PoE state indicator	Solid on	The port is supplying PoE power normally.
		Off	The port stops supplying PoE power.

### Init Button

By pressing the button over 10s, the switch will be restored to the original factory default setting.

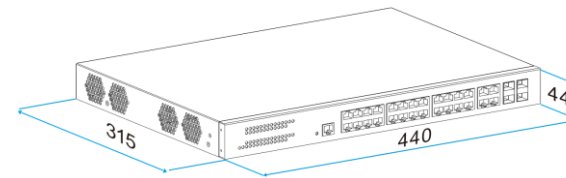
# 4 Installations

This series switch supports three installation modes:

- Rack mounted installation
- Desktop installation
- Wall mounted installation

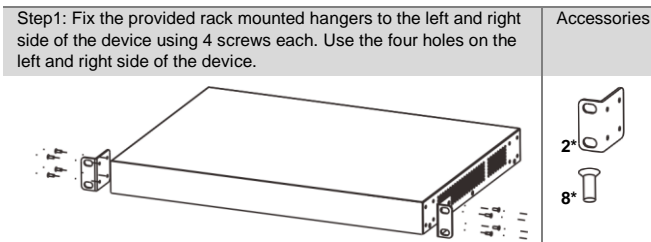
The dimension of this series is the same in terms of switches and accessories.

### Dimensions (mm)

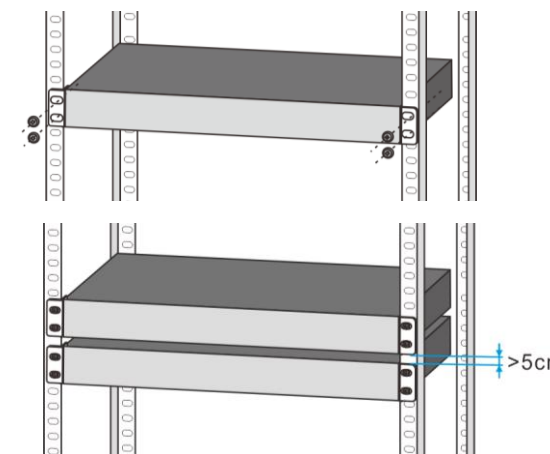


## 4.1 Rack Mounted Installation

This switch supports 19" rack mounted installation. Following with the installation steps below.



Step 2: Install the switch to the rack. The distance between the devices in the rack should be more than 5cm.



## 4.2 Desktop Installations

This series of switches support desktop installation. Users can put this product on clean, stable, grounded workbench.

Please follow the steps below:

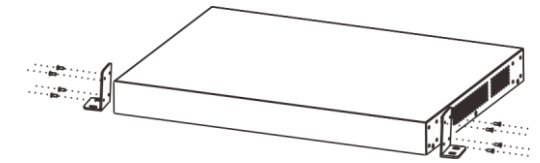
- Carefully put the device upside down, clean the grooves on the chassis backplane with soft cloth to make sure there is no oil or dust in it.
- Remove the stickers on the foot pad, paste the foot pad on the four corners at the bottom of the switch.
- Carefully put the device upright on the workbench.

## 4.3 Wall-mounted Installations

Drill 4 holes on the wall where the device is installed according to the dimensions of the switch and accessories. Insert an expansion anchor into each hole drilled in the wall, and beat the top of it with a rubber hammer until all the anchor is inserted into the wall.

Please follow the steps below:

Fix the provided rack mounted hangers to the left and right side of the device using 4 screws each. Use the four holes on the left and right side of the device. Fix to the switch to the wall.



# 5 Connect the Power Supply

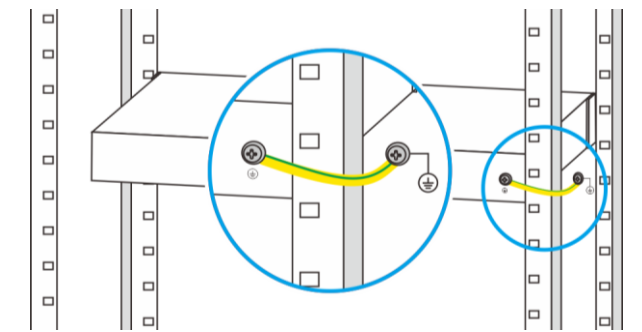
### Note:

Ground the switch housing with the grounding screw on the side of the housing! Always make the ground connection first and disconnect it at the end.

Use one end of PGND cable to connect the M4 grounding connector of the switch, the other end to a ground point. The PGND of the switch is shorted to the copper protection ground bar provided by the user. The PGND cable used should be an alternating yellow and green plastic insulating one with copper core, with cross-sectional area greater than 2.5mm².

The figure below takes rack-mounted installation as example.

### Ground the switch housing



This series switch supports 100~220V AC power supply.

### 100~240V AC Supply

Use an AC power cable to connect the AC power connector of the switch. It is recommended to use the AC power cable provided in the package. Connect the mains supply to the building's power supply network.

Please observe the following specifications:

Items	Specifications
Input Voltage	100~240V AC, 50~60Hz

## 5.1 Starting Up

After connection to the power supply, the switch starts automatically. LED indicators "PWR" turns green, and after about 90s, the system is ready.

# 6 Factory Settings

### Note:

Please note that the factory settings may change with future firmware versions. For this reason we recommend that you check the release notes for information about any changes to the factory settings before carrying out a firmware update.

The switch starts with its factory settings:

Items	Specifications
<b>IP Configuration</b>	
Default Static IP Address	192.168.1.200
Default Subnet Mask	255.255.255.0

# 7 Access Network Management

After starting up successfully, connect the switch to your local network segment using a suitable cable to access the switch network management system. For details, please refer to the following document:

- Web Configuration Guide

Describes Web network management system configuration instructions.

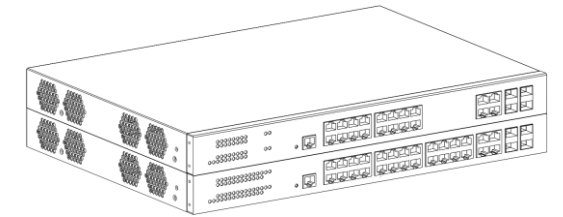
## 8 Specifications

Items	20-Port L2 Managed Ethernet Switch
Hardware Specifications	
Downlink Port	16*10/100/1000 Base-T PoE+ RJ-45 (Auto-MDI/MDI-X)
Uplink Port	4*1000M Combo (RJ-45/SFP)
Console port	1*RJ-45
LED Indicators	1*PWR, power supply indicator
	1*SYS, system working indicator
	20*Link, port state indicators
	16*PoE, port PoE state indicators
Dimensions (W*D*H)	440mm*315mm*44mm
Input Voltage	100~240V AC, 50~60Hz
Power Consumption	≤280W (Full load including PoE)
Material	Metal shell
Installation	Rack/desktop/wall mounted
Switch Property	
Standards	IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.3af, IEEE802.3at
Forwarding Modes	Store and Forward
MAC Table	8k, support auto learning
Switching Capacity	40Gbps/non-blocking
Packet Forwarding Rate	29.7Mpps
Jumbo Frame	9kB
Power Supply	
PoE Standard	IEEE 802.3af/at
PoE Power Supply Type	End-span
PoE Pin Assignment	4/5(+), 7/8(-)
PoE Budget	30W max for each port, 250W max for whole switch
Reliability	
Surge Immunity	IEC61000-4-5,line to earth: 4kV
ESD Protection	IEC61000-4-2, Level 3: Contact Discharge: +6kV, Air Discharge: +8kV
Operating	0°C~45°C, 10%~90% (Non-condensation)
Storage	-40°C~70°C, 5%~90% (Non-condensation)

Items	28-Port L2 Managed Ethernet Switch(280W)	28-Port L2 Managed Ethernet Switch(450W)
Hardware Specifications		
Downlink Port	24*10/100/1000 Base-T PoE+ RJ-45 (Auto-MDI/MDI-X)	
Uplink Port	4*1000M Combo (RJ-45/SFP)	
Console port	1*RJ-45	
LED Indicators	1*PWR, power supply indicator	
	1*SYS, system working indicator	
	28*Link, port state indicators	
	24*PoE, port PoE state indicators	
Dimensions (W*D*H)	440mm*315mm*44mm	
Input Voltage	100~240V AC, 50~60Hz	
Power Consumption	≤280W (Full load including PoE)	≤450W (Full load including PoE)
Material	Metal shell	
Installation	Rack/desktop/wall mounted	
Switch Property		
Standards	IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.3af, IEEE802.3at	
Forwarding Modes	Store and Forward	
MAC Table	8k, support auto learning	
Switching Capacity	56Gbps/non-blocking	
Packet Forwarding Rate	41.6Mpps	
Jumbo Frame	9kB	
Power Supply		
PoE Standard	IEEE 802.3af/at	
PoE Power Supply Type	End-span	
PoE Pin Assignment	4/5(+), 7/8(-)	
PoE Budget	30W max for each port, 250W max for whole switch	30W max for each port, 400W max for whole switch
Reliability		
Surge Immunity	IEC61000-4-5,line to earth: 4kV	
ESD Protection	IEC61000-4-2, Level 3: Contact Discharge: +6kV, Air Discharge: +8kV	
Operating	0°C~45°C, 10%~90% (Non-condensation)	
Storage	-40°C~70°C, 5%~90% (Non-condensation)	

## 16-Port/24-Port Gigabit PoE+ 4-Port Gigabit Combo L2 Managed Ethernet Switch

## Quick Installation Guide



### Announcement

The information in this document is subject to change without notice.

The document is only used as operation guide, except for other promises. No warranties of any kind, either express or implied are made in relation to the description, information or suggestion or any other contents of the manual.

The images shown here are indicative only. If there is inconsistency between the image and the actual product, the actual product shall govern.

### Version

V1.1. Released on 2023.10.12.

### Change History

Updates between document issues are cumulative. Therefore, the latest document issue contains all updates made in previous issues.

Version	State	Release Date	Description
V1.0	Released	2022.9.27	Initial commercial release.
V1.1	Released	2023.10.12	Change the PoE Pin Assignment, increase the protection standard