1 Packing List

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

No.	Items	Quantity
1	Switch	1
2	Power Cable	1
3	Console cable	1
4	Grounding cable	1
5	Rack mount brackets	2
6	Rubber pads	4
7	Screw package	1
8	Quick Installation Guide	1
9	Warranty card	1
10	QC card	1

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.
- 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

This series of switches is enterprise-class stackable routing switch with fixed, built-in 10GbE uplink ports. It has great performance on availability, scalability, security and energy efficiency. This fully managed switch provides high switching capacity, supports wire-speed L2/L3 forwarding and high routing performance for IPv4 and IPv6 protocols. Thanks to the VSF (Virtual Switch Framework), the management work for the network administrator is simplified. Multiple switches can be virtualized into one logical device, achieving the sharing of information and data tables between different switches, which provides more reliability. It delivers high-performance, hardware-based on IP routing. RIP, OSPF, and BGP provide dynamic routing by exchanging routing information with other Layer 3 switches and routers. It is ideal for aggregation or access layer for campus, enterprise, government and internet service provider networks.

3.2 Hardware Introduction

28-Port Switch

28-Port PoE Switch

52-Port Switch

52-Port PoE Switch
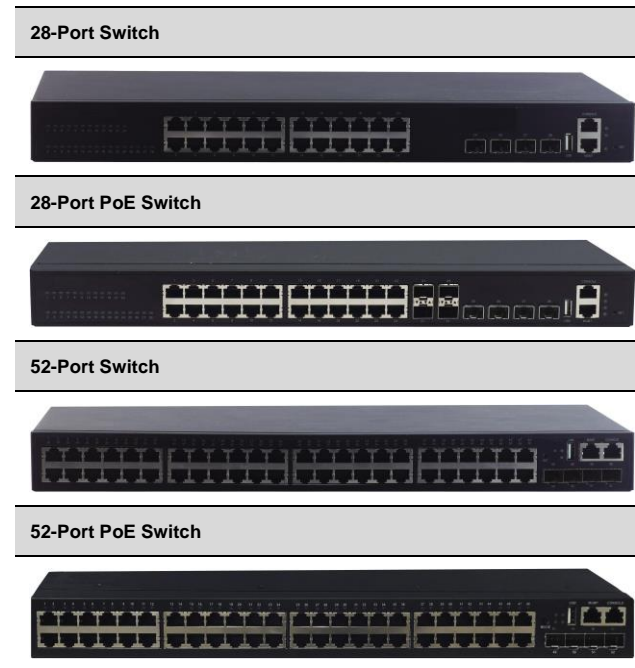
LED Indicators Instructions

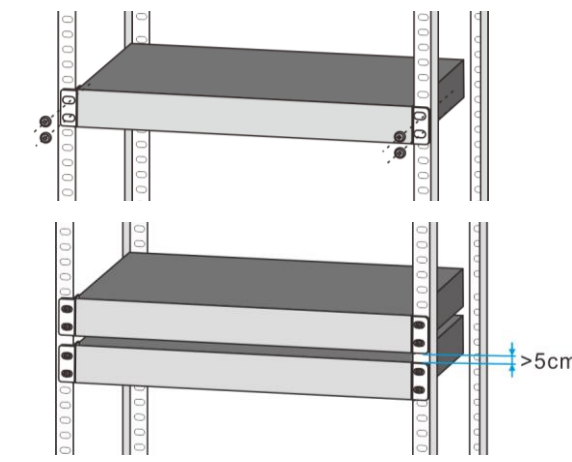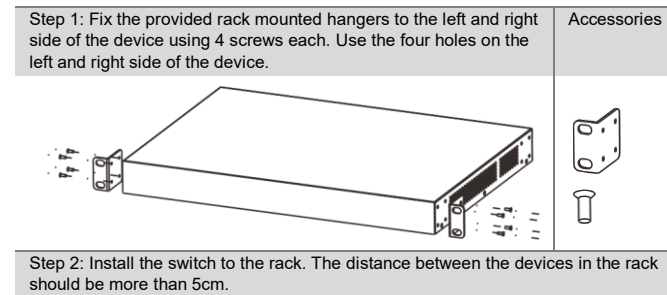| LED Symbol	Status	Description
PWR	On (Green)	Power is operating normally
	Off	Power is not operating
DIAG	On(Green, blink)	System is loading
	On (Green)	System is operating normally
RPS	On (Green)	DC power is operating normally
	Off	DC power is not operating
PoE	On (Green)	PoE is operating normally
	Off	PoE is not operating
MGMT	On (Green)	Network management port 10M / 100M / 1G is linking
	Off	Network management port is not linking
	Blink	Data forwarding

4 Installations

This series switch supports three installation modes:

- Rack mounted installation
- Desktop installation
- Wall mounted installation

4.1 Rack Mounted Installation

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

Step 1: 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.	Accessories

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

>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.
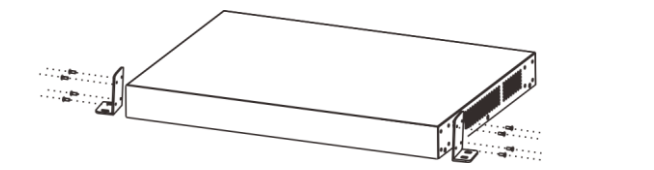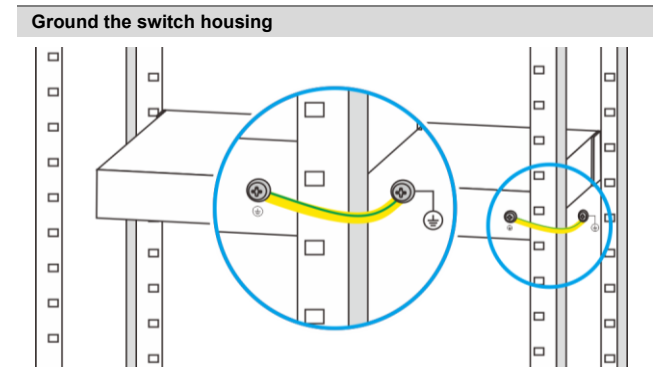

5 Connect the Power Supply

> **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 100~240V AC power supply.

100~240 V 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.

> **Note:**
> To switch off the device, always disconnect both the main and redundant power supply.

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
Management Interfaces	
Console Port	Enabled Baud rate: 115200 bit/s Data bits: 8 Parity: none Stop bits: 1 Flow control: none
Web Manager	Enable Default static IP address: 192.168.1.200 Default subnet mask: 255.255.255.0 User: admin Password: admin
Telnet	Disable, to enable the Telnet, users should configure the IP addresses for the switch and start the Telnet Server function on the switch.

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:

- Management Configuration Guide

  Describes network management system configuration instructions.

8 Specifications

Items	28-Port Switch	28-Port PoE Switch
Hardware Specifications		
Downlink Port	24*10/100/1000BASE-T RJ-45 ports	20*10/100/1000BASE-T PoE+ RJ-45 ports 4*1000Mbps Combo (RJ-45/SFP)
Uplink Port	4*1/10GBASE-X SFP+	
Management Port	1*RJ-45 Ethernet management port	
	1*Console port	
	1*Reset port	
	1*USB2.0 interface	
Cable	Cat5 or better	
Dimensions (W*D*H)	440mm*320mm*44mm	440mm*320mm*44mm
Single Package Weight	3.45kg	5.4kg
Single Package Dimensions	530mm*322mm*98mm	530mm*480mm*110mm
Power Supply	AC: 100~240VAC, 50~60Hz	AC: 100~240VAC, 50~60Hz
Power Consumption	<30W (Full load)	<471W(Full load, include PoE)
Material	Metal shell	

Switch Property		
Forwarding Modes	Store and Forward	
Switching Capacity	128Gbps, non-blocking	
Packet Forwarding Rate	95Mpps	
Jumbo frame	10K	
MAC Table	16K, supported auto learning	
ARP Table	4K	
Routing Table	1K	
ACL Table	1K	
PoE		
PoE Standard	N/A	IEEE 802.3af/at
PoE Budget	N/A	30W max for each port, 370W max for whole switch
Environments		
Operating	Temperature: 0℃ ~50℃	
	Relative Humidity: 10%~90% (Non-condensation)	
Storage	Temperature: -40℃ ~70℃	
	Relative Humidity: 10%~95% (Non-condensation)	

Items	52-Port Switch	52-Port PoE Switch
Hardware Specifications		
Downlink Port	48*10/100/1000BASE-T RJ-45 ports	48*10/100/1000BASE-T PoE+ RJ-45 ports
Uplink Port	4*1/10GBASE-X SFP+	
Management Port	1* RJ-45 Ethernet management port	
	1* Console port	
	1* Reset port	
	1* USB2.0 interface	
Cable	Cat5 or better	
Dimensions (W*D*H)	440mm*240mm*44mm	440mm*320mm*44mm
Single Package Weight	4.25kg	7.235kg
Single Package Dimensions	530mm*322mm*98mm	555mm*483mm*168mm
Power Supply	AC: 100~240VAC, 50~60Hz	AC: 100~240VAC, 50~60Hz
		DC: -52V~-57V
Power Consumption	<50W (Full load)	<897W (Full load, include PoE)
Material	Metal shell	
Switch Property		
Forwarding Modes	Store and Forward	
Switching Capacity	176Gbps, non-blocking	
Packet Forwarding Rate	131Mpps	
Jumbo frame	10K	
MAC Table	16K, supported auto learning	
ARP Table	4K	512
Routing Table	1K	512
ACL Table	1K	512
PoE		
PoE Standard	N/A	IEEE 802.3af/at
PoE Budget	N/A	30W max for each port, 740W max for whole switch
Environments		
Operating	Temperature: 0℃ ~50℃	
	Relative Humidity: 10%~90% (Non-condensation)	
Storage	Temperature: -40℃ ~70℃	
	Relative Humidity: 10%~95% (Non-condensation)	

24-Port Gigabit 4-Port 10G SFP+ L3 Managed Ethernet Switch

20-Port Gigabit PoE+ 4-Port Gigabit Combo 4-Port 10G SFP+ L3 Managed Ethernet Switch

48-Port Gigabit 4-Port 10G SFP+ L3 Managed Ethernet Switch

48-Port Gigabit PoE+ 4-Port 10G SFP+ L3 Managed Ethernet Switch

Quick Installation Guide