

User Guide

16GE+8G Combo+4*10G SFP+ L3 Managed Switch

This document applies to the 16GE+8G Combo+4*10G SFP+ L3 Managed Switch. The 16GE+8G Combo+4*10G SFP+ is used as an example in the product figure unless otherwise specified.

Packing List

When using the Switch for the first time, carefully open the packing box. The packing box should contain the following items:

- Switch *1
- User Manual *1
- AC Power Cord *1/2(Optional)
- Accessories(Rack Mount Kit *2, Feet *4, Screw *8)

*AC+DC power supply version equipped with an AC power cable, dual AC power supply version equipped with 2 AC power cables, DC power supply does not come with a power cable by default



Note: Precision devices are built in the device, please handle them carefully to avoid violent vibration, which may affect the performance of the device. If you find that the equipment is damaged or any parts are lost in the process of transportation, please inform us, we will give you a proper solution as soon as possible.

Chapter 1 Product Introduction

1.1 Product Overview

16GE+8G Combo+4*10G SFP+ is our self-developed Layer 3 10G Uplink Managed Switch with 16*10M/100M/1000Mbps RJ45 ports, 8 *Combo ports and 4*1000M/2.5G/10Gbps SFP+ fiber module slots and 1* Console port. Layer 3 routing protocol control, adapted to multiple services, efficient and secure information transmission. Dual power supply design, support AC or DC 1+1 backup, reduce the risk of power failure and business interruption. Support static routing function, provide complete security policy, perfect QoS policy and rich VLAN function, easy to manage and maintain, meet the networking and access requirements of Enterprise, Community, Hotel, Office Network and Campus Network.

Chapter 2 Product Appearance Description

2.1 Front Panel

The front panel consists of 16*10M/100M/1000Mbps RJ45 ports, 8*1000Mbps Combo ports and 4*1000M/2.5G/10Gbps SFP+ fiber modules and 1 Console port with associated indicators, as shown in the following figure:

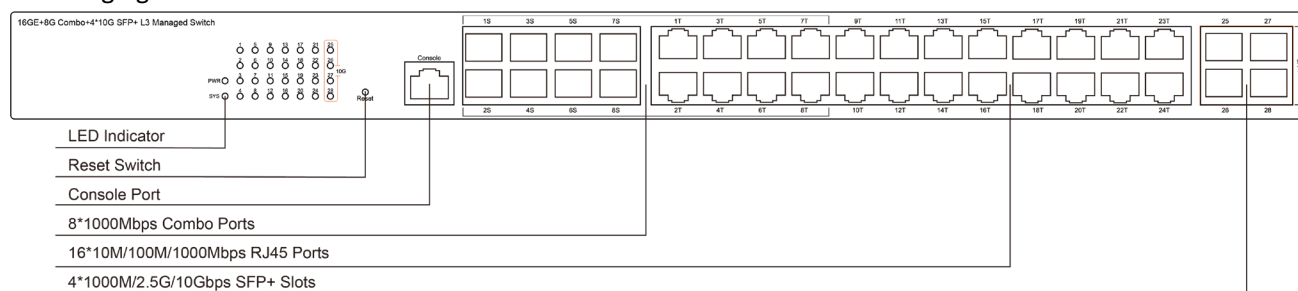


Figure 2-1 Switch front panel diagram

Port description:

➤ 10M/100M/1000Mbps RJ45 Ports

Support 10Mbps, 100Mbps and 1000Mbps rate adaptive function, support Auto-MDI/MDIX function. Among them, 1-8T/S are optical multiplex ports share 1-8 port indicators, the rest of the ports have corresponding indicators, namely 9-24 port indicators shown on the panel above.

➤ 10Gbps SFP+ Slots

10 Gigabit uplink optical port is backward compatible with 1000M/2.5Gbps transmission rate, need to use 10Gbps SFP+ 10 Gigabit optical module, support SR/LR/LRM/ER/ZR and other models, corresponding to 25-28 port indicator.

➤ Console Port

The Console port is used to connect to the serial port of a computer or other terminal device and to manage or configure the switch.

➤ Reset Switch

A switch that can be automatically reset, long press for 5 seconds and then release, that is, to restore the factory settings.

2.2 LED Indicator

The LED indicators of the Switch are shown in the following table. Users can monitor the work and running status of the Switch conveniently and quickly through the following indicators:

LED	Color	Function	
PWR	Green	Off: No Power supply. Light: Indicates the Switch has power.	
LNK/ACT	Green	RJ45 Port (Combo Port)	Off: The network is not connected. Steady on: A 10M/100M/1000Mbps network device is connected. Blinking: Data is being transferred.
		SFP+ Slot	Off: The network is not connected. Steady on: A 1000M/10Gbps network device is connected. Blinking: Data is being transferred.
SYS	Green	Blinking: The system is working properly. Off: The system is being started or is abnormal.	

2.3 Rear panel

This model is designed for dual power supply, disconnect all power when you stop using. Rear panel diagram: AC power interface, DC power interface, lightning protection grounding column.

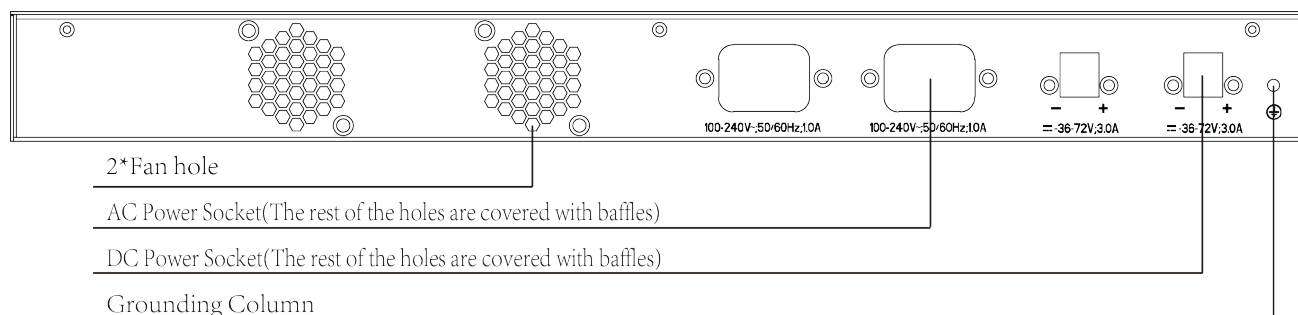


Figure 2-2 Diagram of the rear panel of the switch

AC power port

AC power outlet with power input range of AC: 100-240V, 50/60Hz, connect the negative plug of the power cord to this interface and the positive plug to AC power.

DC power port

DC power socket, DC input range 36~72V, connect the positive and negative terminals of the external power supply to the 2Pin terminals according to the label, and the other end of the power supply to the AC power supply.

Grounding Column

It is located to the right of the power interface. Please use wire grounding to prevent lightning strike.



Precautions: The product has provision for a permanently connected protective grounding conductor, this conductor need to install to building earth by a skilled person.

Chapter 3 Installation Guide

This chapter helps users correctly install and safely use Switches.

3.1 Installation Precautions



Precautions: To avoid equipment damage and personal injury, observe the following precautions:

- The Switch room should be dry and ventilated, free from corrosive gases and strong electromagnetic interference;
- The humidity of the Switch equipment room should be lower than 90%. Install proper devices when possible;
- The grounding of the Switch shall comply with the grounding requirements described in this manual, and shall be separately and well grounded;
- The Switch voltage should be stable to prevent abnormal operation of the Switch caused by power supply voltage mutation, fluctuation and other phenomena;
- Keep a proper distance between the Switch and other devices. Do not stack other devices with the Switch;
- The connection cable between the Switch and the distribution frame should be standardized and reasonable, and the distribution frame (box) jumper wire should be concise and clear to prevent the phenomenon of parallel lines and wires;
- To avoid the danger of electric shock, do not open the chassis without authorization; If any fault occurs, contact professional maintenance personnel.



Safety Tips:

- Use a three-hole socket with safe grounding, and ensure that the PGND cable of the power socket is properly grounded;
- Ensure sufficient space for heat dissipation and ventilation of the Switch. Do not place heavy objects on the Switch.

3.2 Installation Environment

Before installation, make sure that the proper working environment is available, including power requirements, adequate space, proximity to other equipment to be connected, and other equipment in place. Please confirm the following installation requirements:

- Ensure the stability of the workbench and good grounding;
- Check whether cables and connectors required for installation are in place (less than 100m);
- Environment requirements: The operating temperature ranges from 0°C to 40°C and the relative humidity

ranges from 5% to 90%.

3.3 Installation

Desktop installation

- Place the bottom of the Switch face up on a large enough stable desktop;
- Tear off the attached sticky paper on the surface of the footpad and paste the footpad into the groove at the bottom of the chassis of the Switch to prevent external vibration;
- Carefully position the Switch upright on the workbench.

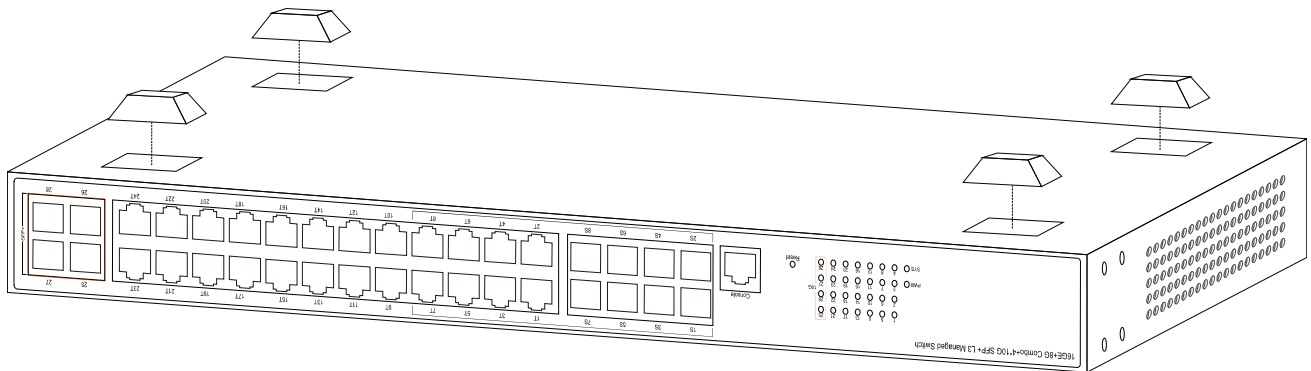


Figure 3-1 Desktop Installation Diagram

Rack mounted

- Check the grounding and stability of the EIA-19inch cabinet;
- Fix mounting ears to both sides of the front panel of the Switch using screws. Place the Switch on a bracket of the cabinet and move the Switch along the guide rails of the cabinet to a proper position;
- Use screws to fix mounting ears to the guide rails at both ends of the cabinet to ensure that the Switch is securely installed on the brackets in the cabinet slots. The mounting ear of the device is not used for weight bearing, it is only used for fixation;
- When installing devices in a cabinet, brackets (fixed on the cabinet) are provided below the device chassis to support devices.

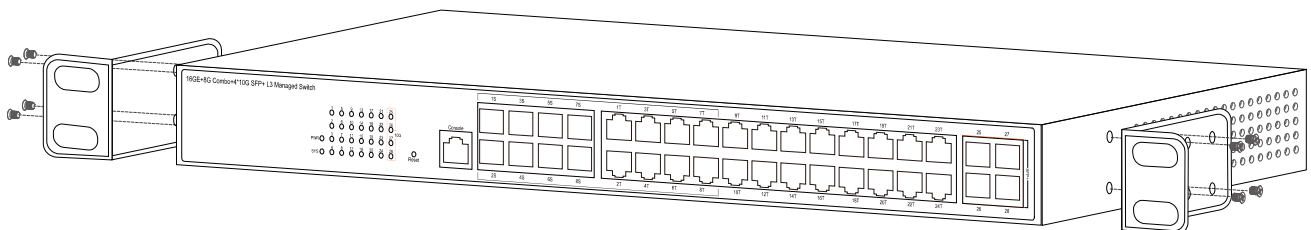


Figure 3-2 Diagram 1 of rack installation

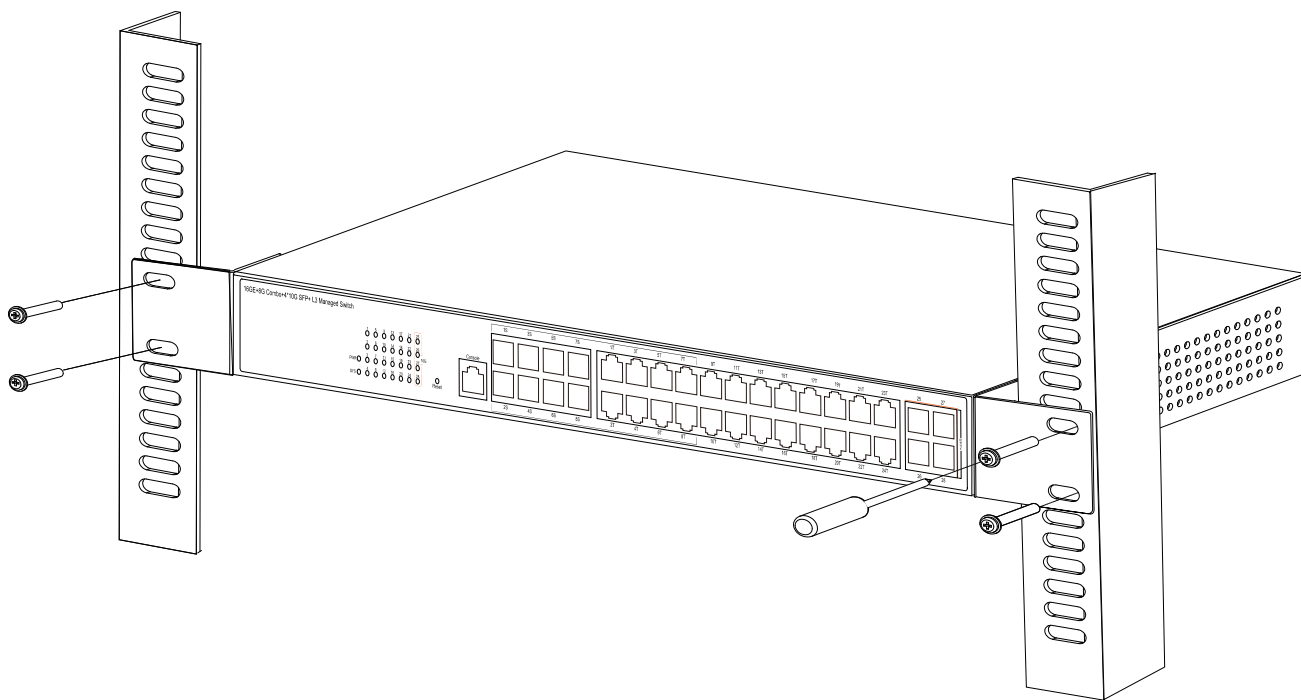


Figure 3-3 Diagram 2 of rack installation

3.4 Enabling the Switch

Connect the power cord, plug in, and turn on the power. After the Switch is started, the Switch automatically initializes. If all port indicators are on and off, the system is successfully reset. The power LED indicator is steady on.

Note: Please make sure the voltage is correct before powering up, otherwise the device will be damaged. Please disconnect all power after stopping use. (AC: 100-240V, 50/60Hz, DC: 36~72V)

Appendix: Technical Specifications

Model		16GE+8G Combo+4*10G SFP+ L3 Managed Switch
Standard		IEEE802.3, IEEE802.3u, IEEE802.3ab, IEEE802.3z, IEEE802.3x, IEEE802.3ad, IEEE802.3bz, IEEE802.3ae, IEEE802.1X, IEEE802.1Q, IEEE802.1p, IEEE802.1d, IEEE802.1w
Network Media(Cable)		10BASE-T: UTP category 3, 4, 5 cable(≤100m) 100BASE-TX: UTP category 5, 5e cable(≤100m) 1000BASE-TX: UTP category 5e, 6 cable(≤100m) 1000BASE-X: MMF, SMF 10GBASE-X: MMF, SMF 10GBASE-SR: OM1/OM2/OM3 or above MMF (2m~300m) 10GBASE-LR: IEC's B1.1 and B1.3 SMF (2m~10000m)
MAC Address Table		16K, Auto-learning, Auto-updating
Jumbo Frames		12KBytes
Packet Buffer		12Mbit
Transfer Mode		Store-and-Forward
Switching Capacity		128Gbps
Packet Forward Speed		95.23Mpps
Input Voltage	AC	Operating voltage: 100-240V, 50/60Hz, 2A Max Maximum voltage: 90V-240V, 47~63Hz
	DC	Maximum voltage range: 36~72V, 3A Max
Total power supply	AC	12V/5A, 60W
	DC	12V/6.25A, 75W
Dimensions (L*W*H)		440*260*44mm, Black
Operating Temperature		0°C ~ 40°C
Storage Temperature		-40°C ~ 70°C
Operating Humidity		10% ~ 90% non-condensing
Storage Humidity		5% ~ 90% non-condensing