



User Guide

AES4002

48 x GE | 6 x 10 GE SFP+ | L3



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This manual is applicable to AES4002. Unless otherwise specified in the manual, the product diagram shows AES4002 as an example.

Chapter 2 Product Appearance Description

2.1 Front Panel

Introduction of switch front panel:



Figure 2-1 Switch front panel diagram

➤ 10M/100M/1000Mbps RJ45 Ports

Support 10M/100M/1000Mbps rate adaptation function, support Auto-MDI/MDIX function. Each port has a corresponding indicator light, namely the port 1-48 indicator light shown in the panel above.

➤ 10Gbps SFP+ Slots

SFP slots are independent SFP slots on the right of the panel. Each port has a corresponding indicator, that is, the indicator 49-54 on the panel in the figure above.

➤ Reset Switch

Reset Switch is simply a Switch that can reset automatically. After long press the reset Switch for 5 seconds, the initial state will be restored when the hand is released.

➤ Console Port

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

2.2 LED Indicator

The LED indicator light of the switch is shown in the following table. Users can easily and quickly monitor the work and operation status of the switch through the following indicator light:

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
- Power Cord*1
- Console Cable*1
- Accessories (Rack Mount Kit*2, Rubber Feet*4, Screw*8)

⚠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

AES4002 is a 10Gbps L3 management switch independently developed by our company. It has 48*10/100/1000Mbps RJ45 ports, 6*10Gbps SFP+ optical module expansion slots, and 1 Console port. Supports static routing, provides complete security policies, QoS policies, and diversified VLAN functions, and is easy to manage and maintain, meeting the networking and access requirements of enterprises, communities, hotels, office networks, and campus networks.

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LED	Color	Function
PWR	Green	Off: No power supply. Light: Indicates the Switch has power.
DATA	Green	Off: No device is connected to the corresponding port. Light: Indicates the link through that port is successfully established at 10/100/1000Mbps. Blink: Indicates that the Switch is actively sending or receiving data over that port.
SYS	Green	Blinking: The system is working properly Off: The system is being started or is abnormal

2.3 Rear Panel

The rear panel of the switch is introduced:



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

➤ AC Power Socket

This is an AC power socket, connect the negative plug of the power cord to this interface, and connect the positive plug to the AC power supply.

➤ Grounding Column

Located on the left side of the power interface, please use a wire to ground in case of lightning.

⚠ 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;
- Environment requirements: The operating temperature ranges from 0°C to 40°C (32°F to 104°F) and the working humidity is 5% ~ 90%.

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3.3 Installation

Rack mounted

- Check the grounding and stability of the 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.

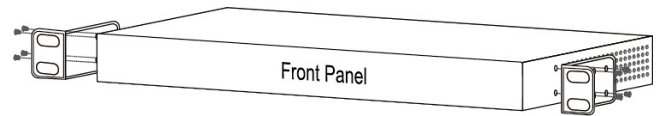


Figure 3-1 Diagram 1 of rack installation

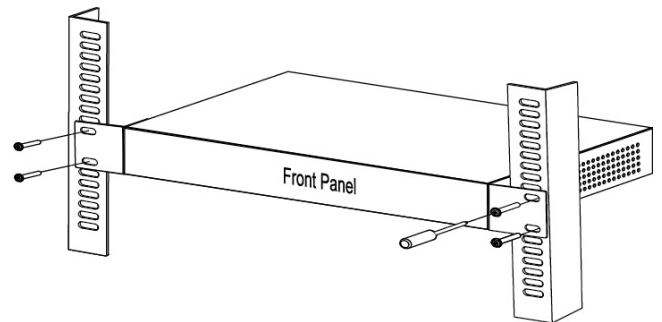


Figure 3-2 Diagram 2 of rack installation

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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.

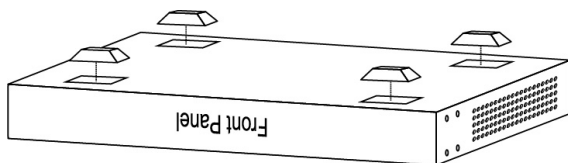


Figure 3-3 Desktop installation diagram

3.4 Enabling the Switch

Connect the switch to the power socket using the packaged power cable or power adapter (if available). After the switch is powered on, the switch automatically initializes. If all port indicators are on and off, the system is reset successfully. The power LED indicator is always on.

Note: Before powering on the device, ensure that the power supply voltage is consistent with that marked on the switch. Otherwise, the device will be damaged.

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Appendix: Technical Specifications

Model	AES4002
Standard	IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z, IEEE 802.3x, IEEE 802.1X, IEEE 802.1q, IEEE 802.1p, IEEE 802.1d, IEEE 802.1w, IEEE 802.3ad
Network Media (Cable)	100BASE-TX: UTP category 5, 5e cable (≤100m) 1000BASE-T: UTP category 5e, 5 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	32K, Auto-learning, Auto-update
Packet Buffer	16Mbit
Transfer Mode	Store-and-Forward
Jumbo Frames	12K Byte
Switching Capacity	216Gbps
Packet Forward Speed	160.71Mpps
Dimensions (L*W*H)	440*260*44mm
Fan	1pcs
Input Voltage	AC 100-240V 50/60Hz
Power Supply	60W
Operating Temperature	0°C ~ 40 °C (32°F ~ 104°F)
Storage Temperature	-40 °C ~ 70°C (-40°F ~ 158°F)
Operating Humidity	10% ~ 90% non-condensing
Storage Humidity	5% ~ 90% non-condensing

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