



User Guide

AES4010

16 x GE SFP | 8 x GE Base-T/SFP Combo | 4 x 10 GE SFP+ | L3



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This document applies to AES4010 Industrial Switch. Unless otherwise specified, AES4010 is used as an example in the product diagram.

Chapter 2 Product Appearance Description

2.1 Front Panel

The front panel consists of 16*1000Mbps SFP slots, 8*1000Mbps Combo ports, 4*10Gbps SFP+ optical module expansion slots and related indicators, as shown in the following figure:

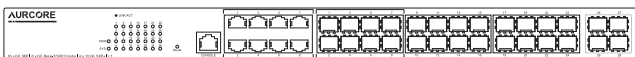


Figure 2-1 Switch front panel diagram

Port description:

> 1000Mbps, 10Gbps SFP+ Slots

The SFP ports are located on the right side of the panel, which are independent SFP ports. 25-28 ports are 10Gbps SFP+ optical modules, which can meet the higher rate requirements of data centers and realize the network expansion and conversion of data centers. Each port has a corresponding indicator, i.e. 1S-8S, 9S-28S port indicators shown in the panel above.

> 1000Mbps Combo Ports

Combo port is located on the right side of the panel, it is an optical multiplex port, which refers to two Ethernet interfaces (usually one is a SFP port and one is a RJ45 port) on the device panel, and there is only one forwarding interface inside the device. Users can choose one of them according to the actual networking situation, but the two cannot work at the same time. Each port has a corresponding indicator, that is, port indicator 1T/5-8T/S as shown 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.

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*2
- > Console Line*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

AES4010 is our self-developed Fiber Managed Switch with 16*1000Mbps SFP slots, 8*1000Mbps Combo ports and 4*10Gbps SFP+ fiber module expansion slots. Dual power supply design, supporting AC or DC 1+1 backup, reducing the risk of equipment power failure and business interruption .It supports static routing function, provides complete security policy, perfect QoS policy and rich VLAN function, easy to manage and maintain, and meets the networking and access requirements of enterprise, community, hotel, office network and campus network.

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	Off: The network is not connected. Light: A 10/100/1000Mbps 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 connector, DC power connector.

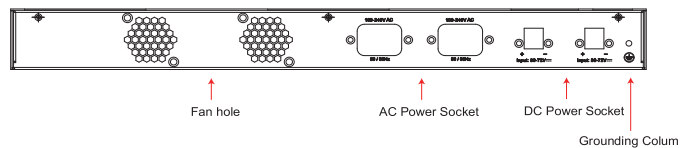


Figure 2-2 Diagram of the rear panel of the switch

AC power port

This is an AC power outlet with a power input range of 100-240V AC, 50/60Hz, connect the female plug of the power cord to this connector and the male plug to the AC power supply

DC power port

This is a DC power outlet, DC input range of 36-72V, the power cord negative plug to this interface, the male plug to the AC power.

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.
- All power must be disconnected when the switch is taken out of service.
- 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

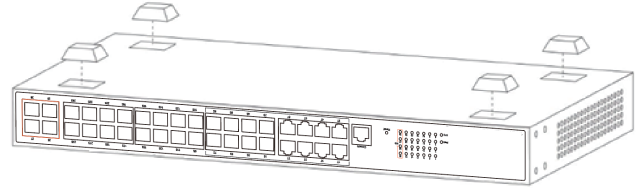
Before installation, make sure that the proper working environment is available, including power requirements, adequate space, proximity to other equipment to be connected, and other equipment in place. Please confirm the following installation requirements:

- 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 (32°F to 104°F) 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.



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.

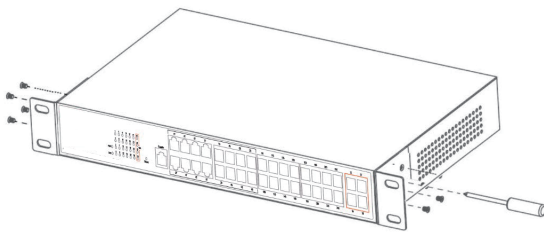


Figure 3-2 Diagram 1 of rack installation

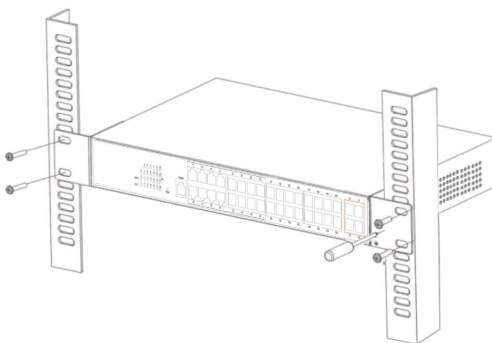


Figure 3-3 Diagram 2 of rack installation

3.4 Enabling the Switch

Plug it in first, then connect the power cord and turn on the power. After power on, the switch will automatically initialize and all port LEDs will be fully illuminated and then go out, indicating a successful system reset. The power LED is always on. Please disconnect all power supplies when you stop using the switch.

Note: Please check that the voltage is correct before powering up, otherwise the unit will be damaged. (AC power input range 100-240V AC 50/60Hz, DC power input range 36-72V).

Appendix: Technical Specifications

Model	AES4010		
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)		
Optical Module Rate	0~2M, 2~10M, 2~84M, 155M, 622M, 1.25G, 2.5G, 3.125G, 4.25G, 5G, 6G, 8G, 10G		
MAC Address Table	16K, Auto-learning, Auto-updating		
Packet Buffer	12Mbit		
Transfer Mode	Store-and-Forward		
Jumbo Frames	12K Byte		
Switching Capacity	128Gbps		
Packet Forward Speed	95.23Mpps		
Dimensions (L*W*H)	440*260*44mm		
Fan	2pcs		
Power Supply	AC+AC 100-240V	DC+DC 36-72V (Optional)	AC+DC 100-240V/36-72V (Optional)
Temperature	Operating Temperature: 0°C ~ 40 °C (32°F ~ 104°F) Storage Temperature: -40 °C ~ 70°C (-40°F ~ 158°F)		
Humidity	Operating Humidity: 10% ~ 90% non-condensing Storage Humidity: 5% ~ 90% non-condensing		
MTBF	>100000 hours		