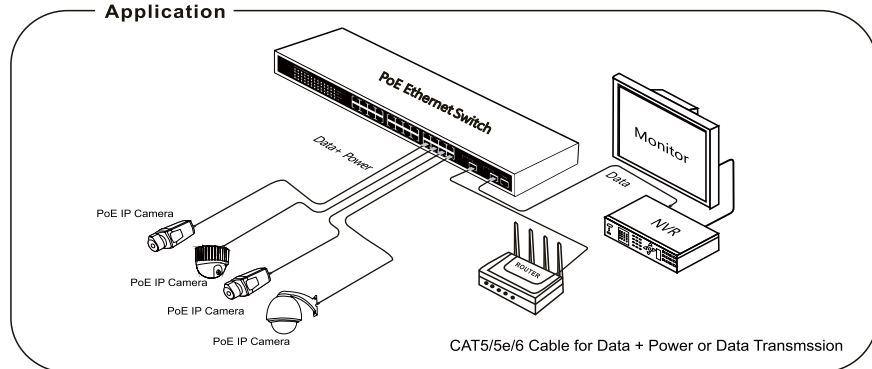


16 Ports Gigabit PoE Switch User Manual

The **16 Ports Gigabit PoE Switch** is fully integrated to support security monitoring, providing high-performance packet forwarding and gigabit Ethernet transfer rates. Adaptive ports use the appropriate bandwidth to ensure clear images and smooth transmission for any application, including high definition video recording or streaming. The AI DIP switch enables PoE Watchdog, QoS, Extend and VLAN modes to further increase performance and security.

Application



Features

- The AI DIP switch includes four modes:
 - VLAN:** Ports 1-16 do not communicate with each other; they communicate only with uplink ports. This controls broadcast storm and strengthens security.
 - Extend:** Ports 1-16 communicate with each other and with uplink ports. Ports 1-16 can transmit up to 250m with Cat5e/6 rated cable or higher.
 - PoE Watchdog:** If a linked network port receives no data for 2-3 minutes, PoE Watchdog cuts and restores power to that port, causing the linked device, such as an IP camera, to restart.
 - QOS:** QOS is the specified port with port data priority, priority is higher than other ports, other ports data priority is equal. 1-2 ports specify the priority, then the data forwarding of these two ports has a higher priority than the other ports, so the data of these two ports are preferentially forwarded.
- Conforms to IEEE802.3, IEEE 802.3i, IEEE 802.3u, IEEE802.3ab, IEEE 802.3z, IEEE802.3af/at/bt
- Provides 16 10/100/1000Base-T ports + 2 Gigabit RJ45 + 2 Gigabit Combo
- Provides 16 PoE(4 bt + 12 at) injector and 250W Built-in power supply
- High back-plane bandwidth 36 Gbps
- IEEE802.3x Flow control
- Surge protection for power port and data ports



Notice

The transmission distance is related to the connected cable. We suggest standard Cat5e / 6 network cable or higher quality Ethernet cable and quality of camera so the transmission distance can up to furthest!

Board Diagram

16xGbE PoE + 2xGbE RJ45+ 2xGbE Combo Switch

Front board



Back board



Power input port
INPUT:100-240VAC

Installation Steps

Please check the following items before installation, if it is missing, please contact the dealer.

● 16xGbE PoE + 2xGbE RJ45+ 2xGbE Combo Switch	1 pcs
● Accessory	1 pcs
● AC power cable	1 pcs
● User manual	1 pcs

Please follow the below installation steps:

- Ensure that all devices are powered off before installation.
NOTE: Installing with the power on will damage the equipment.
- Use network cable to connect PoE IP cameras or other devices to ports 1-16 of the PoE Switch.
- Use network cable to connect equipment to the uplink port and NVR or computer.
- Connect the AC power cable to the unit.
- Confirm that the installation is correct, the equipment is in good condition and the connection is stable; then connect power to the system.
- Ensure the PoE Switch has power and works properly.

Specifications

Item			Description
Power	Power Supply		Built-in Power Supply
	Voltage Range		100–240 VAC
	PoE Budget		250W for PoE
	POE output for each port		Port 1- 4 support for IEEE802.3 af/at/bt and power up to 90W Port 5-16 support for IEEE802.3af/at and power up to 30W
Ethernet	Speed		Ports 1 to 16: 10/100/1000 Mbps Ports 17 to 18: Gigabit RJ45 Ports 19 to 20: Gigabit Combo
	Transmission Distance		RJ45: 328 ft. (100 meters) SFP Port: Transmission distances vary with type of SFP module used. SFP module not included.
Network Switch	Ethernet Standards		IEEE 802.3 / 802.3i / 802.3u / 802.3ab /802.3z / 802.3af / 802.3at / 802.3bt
	Switching Capacity		40 Gbps
	Transfer Rate	14,880 pps for 10 Mbps	
		148,800 pps for 100 Mbps	
		1,488,000 pps for 1000Mbps	
MAC Address		8K MAC address table	
LINK/ACT Indicator	On	Green	The port is connected
	Blinks	-	The port is receiving or transmitting data
	Off	-	The port is not linked successfully with the device
Special Features	PoE Watchdog		PoE Watchdog monitors the connection between the PoE port and IP camera or other powered device. If no data transmission is detected for 2-3 minutes, PoE Watchdog reboots the affected port.
	QOS		QOS is the specified port with port data priority, priority is higher than other ports, other ports data priority is equal. 1-2 ports specify the priority, then the data forwarding of these two ports has a higher priority than the other ports, so the data of these two ports are preferentially forwarded.
	Extend		Downlink port speeds slow to 10 Mbps, enabling a transmission distance of up to 820 feet (250 meters).
	VLAN		VLAN isolates traffic for downlink ports to avoid snooping/tampering. In this mode, downlink ports will not communicate with each other and will only communicate with uplink ports.
PoE Indicator	On	Orange	Power Device is connected
	Off	-	Power device is not connected or power forwarding fails
	PoE Pin Assignment		bt 1-4 port: V+(RJ45 Pin1,2,4,5), V-(RJ45 Pin 3,6,7,8) at 5-24 port: V+(RJ45 Pin 1,2), V-(RJ45 Pin 3,6)
Environment	INDOOR USE ONLY		
	Working Temperature		0°C~40°C (32°F~104°F)
	Storage Temperature		-40°C~70°C (-40°F~158°F)
	Port surge		6KV
	Humidity Non-Condensing		5~90%
Mechanical	Dimension L x W x H		440 x 200 x 44mm

Specifications are subject to change without prior notice.

Troubleshooting

- Make sure the equipment is installed according to the manufacturer's installation guide.
- Confirm RJ45 cable order meets EIA/TIA 568A or 568B standard.
- PoE ports 1-4 can provide maximum power of 90W. Do not connect equipment requiring power over 90W to these ports.
- PoE ports 5-16 can provide maximum power of 30W. Do not connect equipment requiring power over 30W to these ports.
- Replace the equipment with a proper functioning PoE Ethernet Switch to check if the equipment is damaged.
- Please contact your vendor if trouble still exists.
- Total PoE power between all 16 PoE ports is limited to 250W.

Plug Producing Method

Instruments to be used: wire crimper and network tester. Wire sequence of RJ45 plug should conform with EIA/TIA568A or 568B.

1. Remove 2cm of the insulating layer and bare 8 pairs UTP cable.
2. Separate the 8 pairs of UTP cable and straighten.
3. Line up the 8 pieces of cables per EIA TIA 568A or 568B.
4. Cut off the cables to leave 1.5cm bare wire.
5. Plug 8 cables into RJ45 plug make sure each cable is in each pin.
6. Use the wire crimper to crimp.
7. Repeat above steps to make additional ends.
8. Use network tester to test the cable.

Pin	Color
1	White/Green
2	Green
3	White/Orange
4	Blue
5	White/Blue
6	Orange
7	White/Brown
8	Brown



EIA/TIA 568A

Pin	Color
1	White/Orange
2	Orange
3	White/Green
4	Blue
5	White/Blue
6	Green
7	White/Brown
8	Brown



EIA/TIA 568B



Notice

When choosing an RJ45, ensure that if one end is EIA/TIA568A, the other end is also EIA/TIA568A.
When choosing an RJ45, ensure that if one end is EIA/TIA568B, the other end is also EIA/TIA568B.