4 Gigabit PoE Ethernet Switch

IP4GESP

User Manual

Please read these instructions carefully before operating the unit and keep for further reference.

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The 4 Ports Full Gigabit PoE Switch is specially designed for the application of high definition network security surveillance system. The PoE switch provides 4 Gigabit downlink PoE ports support 802.3at and dual Gigabit uplink ports. It's widely used in surveliance monitoring and Ethernet network solutions.

1. Key Features

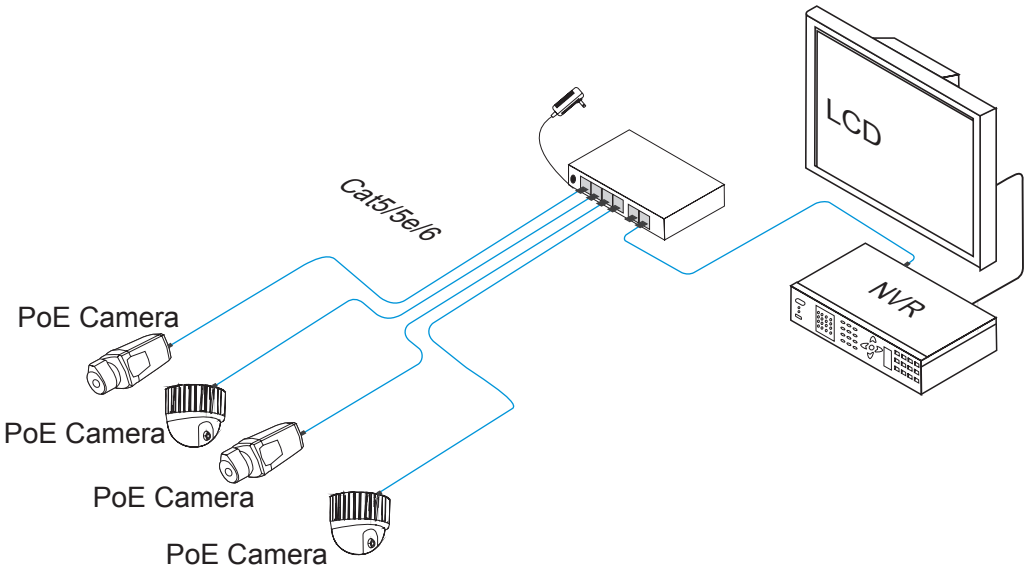
- Main Ports: 4x Downlink Gigabit PoE Ethernet Ports, 2x Uplink Gigabit Ethernet Ports
- One Key CCTV Mode, which can restrain Network Storm, Real VLAN Function and 1~4 Downlink Ports (Only able to communicate with Uplink Ports in CCTV Mode).
- 0~100m Transmission Distance
- Standard:IEEE802.3, IEEE802.3u, IEEE 802.3ab, IEEE802.3 af, IEEE802.3at, PoE adopts End-Span
- Superior Lightning Protection (6KV), ESD Protection and Anti-Interference ability
- Stable and delicate structure, easy to install
- Plug and play, No settings needed

2. Technical Specification

Model Number	IP4GESP
Power Supply	Power Adaptor
Voltage Range	DC48V~57V
PortsEthernet	1~4 Downlink Ports:10/100/1000Mbps PoE Ethernet Ports 5~6 Uplink Ports:10/100/1000Mbps Ethernet Ports
Transmission Distance	0~100m
PoE Standard	IEEE802.3 af, IEEE802.3 at, End-span
PoE Power Supply	Each Port ≤30W, Total <60W
Network Standard	IEEE 802.3,IEEE 802.3u,IEEE 802.3ab
Packet Forwarding Rate rate	8.93Mpps
Switching Capacity	12G
Packet Data Cache	1Mb
MAC Table	8K
Mode Function	A) All Downlink Ports Can Only Communicate with Uplink Ports, Can't communicate each other B) Restrain Network Storm under 2M
Power Input	1x Red Light
One Key CCTV	1x Green Light, Solid on after CCTV Mode On
Downlink Ports	Link: Green LED(On RJ45) PoE: Yellow LED (On RJ45)
Uplink Ports	Link:Green LED (On RJ45) Acting:Yellow LED (On RJ45)
Lightning Protection	6KV, Per: IEC61000-4-5
ESD Protection	Level 3, 1a Contact Discharge Level 3, 1b Air Discharge Per: IEC61000-4-2
Operation Temperature	-10°C ~ +45°C
Storage Temperature	-40°C ~ +85°C
Humidity(Noncondensing)	0~95%
Material / Colour	Metal / Black
Dimensions	135 (L) x 86 (W) x 27 (H) mm
Weight	343g

*Design and Specifications are subject to change without notice.

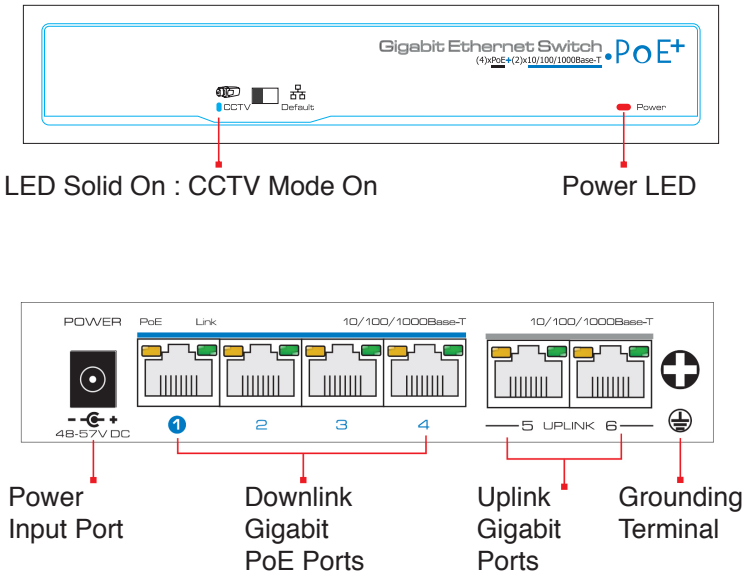
3. Application



NOTICE

1. The Transmission distance depends on the signal source and cable quality. Standard Cat5e/6 Ethernet cable is strongly suggested for reaching the maximum transmission distance.
2. If running in CCTV Mode, please note communication between Downlink Ports is blocked. This is a security feature of the switch.

4. Board Diagram



NOTICE

1. Device must be connected with Lightning Protection Grounding otherwise protection level will be greatly reduced. Please use above No.20 Wire to connect the Grounding Terminal.
2. The device requires power cycling after the Mode Switch has been changed.

5. Installation Steps

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

- 1x Ethernet Switch
- 1x Power Adapter
- 1x AC Power Cable
- 1x Accessory (Mounting Bracket & Rubber Feet)
- 1x User Manual

Please follow installation steps as below:

1. Turn off the power of all the related devices before the installation otherwise the device may get damaged.
2. Connect PoE IP Cameras and 1~4 Downlink Ports with Ethernet cable.
3. Connect Uplink Port with Storage device, like NVR or PC, with Ethernet cable.
4. Connect Power adapter.
5. Double check the installation and connection of equipments are correct and the equipment is working properly. Then power on the system.
6. Make sure the devices are powered and working properly.

6. Trouble Shooting

Find the following solution when the device doesn't work:

- Please confirm if the installation is correct
- Please confirm if the RJ45 cable order is in accordance with the EIA/TIA568A or 568B industry standards.
- The power supply of each PoE port is no more than 30W. Please do not connect the PoE device which exceeds the maximum PoE power supply.
- Please replace a failure device with a properly functioning one to check if the device is broken.
- If the problem still exists, please contact the factory.

7. RJ45 Connections

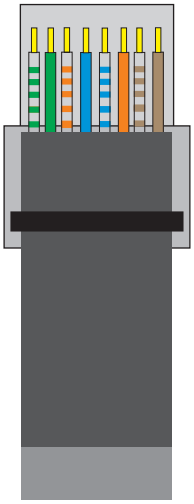
Tools to make RJ45:

- Wire Crimper
- Network Tester.

Wire sequence of RJ45 plug should conform with EIA/TIA568A or EIA/TIA568B standard.

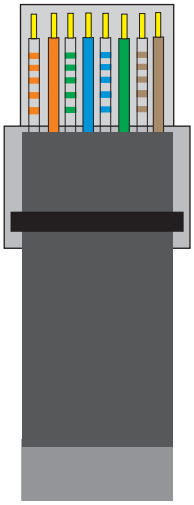
1. Strip off the 2cm insulating layer to expose the 4 pairs UTP cable.
2. Seperate the 4 pairs of UTP cable and straighten them.
3. Line up the 8 separated pieces of cables per EIA/TIA 568A or 568B.
4. Cut the cables to leave 1.5cm bare wire and make sure 8 thread ends are flat and neat.
5. Insert 8 cables into RJ45 plugs, make sure each cable is inserted in each pin.
6. Then use wire crimper to crimp the RJ45.
7. Do the above 5 steps again to make the another end of the twisted pair and make sure consistent cable order between two ends.
8. Using network tester to test the cable.

Pin	Colour
1	white/green
2	gree n
3	white/orange
4	blue
5	white/blue
6	orange
7	white/brown
8	brown



EIA/TI A 568A

Pin	Colour
1	white/orange
2	orange
3	white/green
4	blue
5	white/ blue
6	green
7	white/brown
8	brow n



EIA/TI A 568B

NOTICE
1. Make sure both ends use EIA/TIA568A connection method when using RJ45 port.
2. Make sure both ends use EIA/TIA568B connection method when using RJ45 port.

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