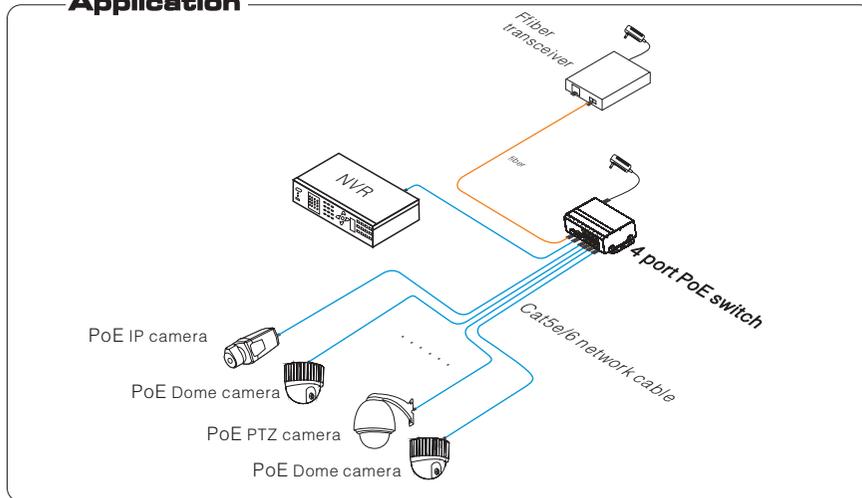


# 4 Ports PoE Ethernet Switch User Manual

VerB 1.2

The un-managed industrial ethernet switch provides one uplink ethernet port and one uplink optical port (100Mbps), four 100Mbps PoE ethernet ports which supporting af/at power supply standard. This product is designed for high definition IP camera network access; which supports one key CCTV model, can achieve VLAN, restrain the Netstorm, protect the information security and prevent the virus spread and Ethernet attack; it also integrates optical interface to achieve the perfect performance which blended with fiber optical transceivers and network switches, to solve the problem of long-distance transmission. The product could be used in network security video surveillance, network project etc.

## Application



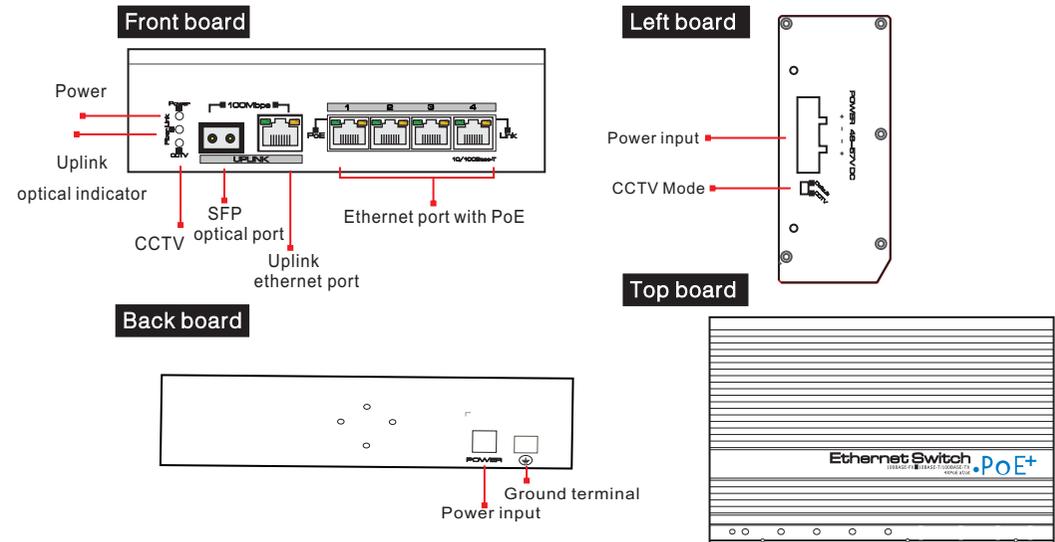
## Feature

- The PoE ethernet port supports IEEE802.3 af/at standard and can provides up to 30W power consumption which can supply high power for Infrared Camera;
- Provide two uplink ports, 100Mbps optical port and ethernet port. uplink optical port reserves SFP port for users to select SFP fiber modules of different performance to solve long distance transmission issue;
- Each PoE ethernet port have button restart function, which allow users to solve network camera crashes and other failures with no need to plug out the network cable. The restart button is set on the slant side, so that users can use it from multiple angles;
- Ethernet port can reach maximum transmission distance up to 150m, breaking the 100m limit;
- One key CCTV model; 1 ~ 4 downlink ports can only communicate with uplink ports and in real-time; the furthest transmission distance could reach 250m
- Redundant power design, support Hot Backup Power;
- Industrial products, fan-free heat folds metal design;
- Excellent circuit for isolation protection, Anti-thunder ability up to 6KV;
- Fast installation, easy operation, convenient for wall-hung, din rail and desktop installation.

## Caution

- 1) Transmission distance is related to the connecting cable. We suggest to use standard Cat5e/6 network cable to get 150m transmission distance.
- 2) If using optical port, customer need to purchase SFP module additional.

# 4 Ports PoE Ethernet Switch Board diagram



## Caution

- 1) The equipment must connect anti-thunder ground, otherwise the protection level of the equipment will be greatly reduced please use 20th or over wire connect ground terminal to the ground ;
- 2) Slide the dial switch, the equipment can enter corresponding surveillance module after reloading the power supply.

## Instruction:

- 1) The front board has 4 ethernet ports; RJ 45 left side yellow light indicating PoE status, green light indicating network status; there have 2 uplink ports: 1 SFP port (Reservation, according to the customer need to configure the optical module) and 1 ethernet port, The lower left side green light indicating optical working status; CCTV green light indicates CCTV mode;
- 2) Two DC 48V-57V power input be designed at left and back flat board.

## Installation step

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

- |                               |      |
|-------------------------------|------|
| ● 4 ports POE Ethernet switch | 1PC  |
| ● Power adapter               | 1PC  |
| ● Hanger                      | 2PCS |
| ● Guide hangers               | 1PC  |
| ● User manual                 | 1PC  |

## Please follow the following installation steps

- 1) Please turn off the signal source and the device's power, installation with power on may damage the device;
- 2) Use 4 network cables to connect 4 IP cameras with switch's 1~4 port;
- 3) Use another network cable or (optical fiber) to connect ethernet switch's UPLINK port with NVR or computer;
- 4) Power on the switch;
- 5) Check if the installation is correct and device is good, make sure all the connection is reliable and the network system is powered on;
- 6) Make sure every network device has power supply and work normally.

### ■ Specification

Item		4 Ports PoE Ethernet Switch
Power	Power supply	Power adapter
	Voltage range	DC48V~57V
	Consumption	< 5W
Ethernet port parameter	Network port	1 ~ 4 port:10/100BASE-TX(Default); 10BASE-T(CCTV) UPLINK port : 10/100BASE-TX SFP:100BASE-FX SFP
	Transmission distance	Downlink Ethernet port:0 ~ 150m(Default); 0 ~ 250m(CCTV) SFP:depend on the optical module transmission performance
	Transmission medium	Cat5e/6 standard network cable
	PoE agreement	IEEE802.3af/at agreement
	PoE power supply	End-span
	PoE power	Single port PoE output≤30W; Whole< 60W;
Ethernet exchange specification	Network standard	IEEE802.3 10BASE-T,IEEE802.3u 100BASE-TX, IEEE802.3u 100BASE-FX,IEEE802.3 X
	Switch Capacity	1.2Gbps
	Packet Forwarding Rate	0.89Mpps
	Packet Buffer	512K
	MAC address list	2K
Status indicator	Power indicator	one red front board, one red oblique board
	Optical port LED indicator	1 SFP port working status, green
	Uplink ethernet port LED	1 Ethernet working status, RJ 45 port green light
	PoE ethernet port LED	4 PoE status indicator, RJ 45 port yellow light; 4 network status indicator, green light
	CCTV LED Indicator	Green Light indicate CCTV mode
Button	PoE reset button	Four button ,corresponding to 1 ~ 4 port, for PoE restart
	Reset button	After pressing , the machine restart
Protection level	Communication port lighting	6KV, standard: IEC61000-4-5
	ESD	6KV/8KV, standard:IEC61000-4-2
Operation environment	Working temperature	-40℃~75℃
	Storage temperature	-40℃~85℃
	Humidity ( non-condensing )	0~95%
Mechanical	Dimension ( L×W×H )	159mm×110mm×46.5mm
	Material	Aluminum
	Color	Black
	Weight	540g

Product are subject to change without prior notice

### ■ Trouble Shooting

Please 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 maximum consumption of every PoE port can not exceed 30W, please do not use the PoE device with consumption over 30W;
- Please replace a failure device with a normally working one to check if the device is broken;
- If the problem still exist, please contact the factory.

### ■ RJ 45 Making Method

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) Separate 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) Test network cable with network tester.

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 choose RJ-45 make sure if one end is EIA/TIA568A, the other end should also be EIA/TIA568A.
- When choose RJ-45 make sure if one end is EIA/TIA568B, the other end should also be EIA/TIA568B.