

## ES1009D-8POE-150W

### Unmanaged PoE Switches

#### User manual

#### Shenzhen 3onedata Technology Co.,Ltd

Address:3/B, Zone 1, Baiwangxin High Technology Industrial park, Song Bai Road,Nanshan District,ShenZhen,518055,China

Website:www.3onedata.com

Tel:+86 0755-26702688

Fax:+86 0755-26703485

#### 【Introduction】

ES1009D-8POE-150W are 10/100M unmanaged PoE Switches. The PoE switches are specifically designed to meet IEEE 802.3af standards for powering network devices, supports 8 POE port and 1 uplink port. Uplink ports can be connected other specifications switches, routers, ordinary PC and terminal can also be connected with the NVR security equipment, this design with the characteristics of security industry network construction, port utilization rate is extremely high. This product supports the 802.3af/at IEEE Ethernet power supply standard, provide the 48V national standard power supply, remote power feeding up to 100m, only for the 802.3af/at standard terminal equipment power supply. It can seamlessly connect IP network monitoring camera, network HD camera security monitoring equipment, etc. Compared with ordinary PoE products, ES1009D-8POE-150W products with high power, PoE power supply and lightning protection, it is an ideal choice for the security of network equipment.

#### 【Packing List】

The ES1009D-8POE-150W 100M Unmanaged PoE Switches is shipped with following items.

- PoE Switches × 1
- AC power line × 1
- Power adapter × 1
- User's Guide × 1
- Certificate of quality /Warranty card × 1

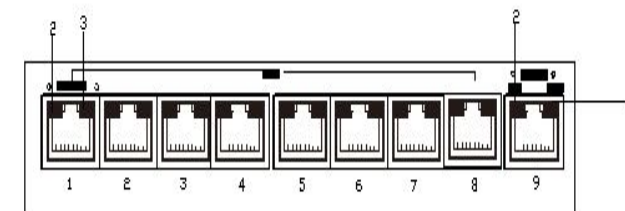
The equipment built-in precision devices, please note gently, avoiding excessive vibration to avoid affecting device performance. If you find the equipment was damaged in transit or any parts are missing, please inform our company or the dealer, we will give you proper solution as soon as possible.

#### 【Features】

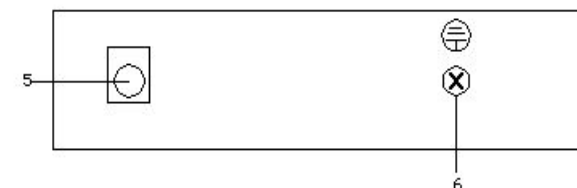
- Separate uplink ports designed to meet the security industry networking features.
- Supports IEEE802.3af standard, full-port full 15.4W power supply.

- Supports IEEE802.3at standard, single-port maximum 30W power supply.
- Supports port auto-flip (Auto MDI / MDIX), network transport 100 meters without interruption.
- All port 10 / 100M adaptive, wire-speed store and forward.
- Only IEEE 802.3af / at-compliant end device powered private standard PoE or PoE device access is not recognized, it will not be damaged.
- External power supply, the total power 96W .
- Metal shell, no fan, both sides of the cabinet have thermal design.
- High-quality components, high specification resistance design, equipment grounding screw, reducing the risk of lightning strikes.
- Per-port power LED indicator design, visual observation whether the access terminal, power supply is normal

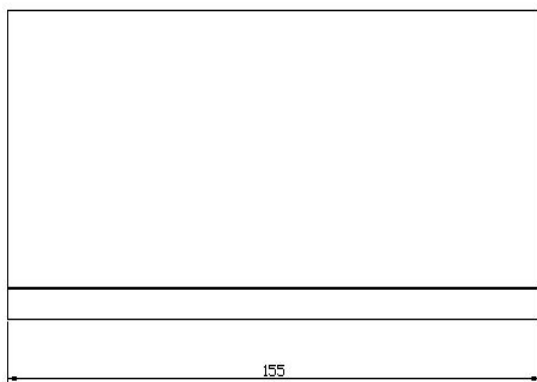
#### 【Panel Layout】



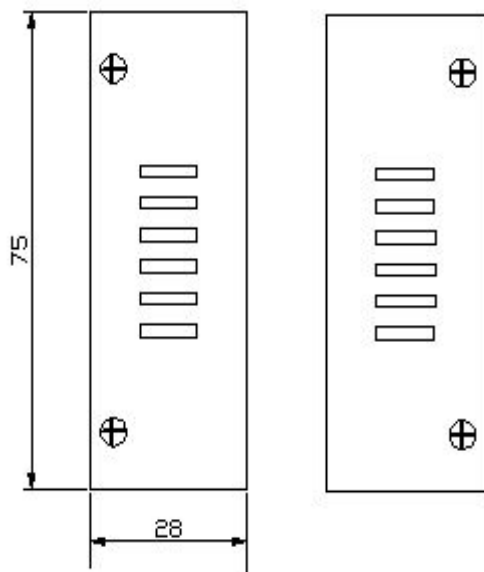
Front panel



Back panel



Top panel



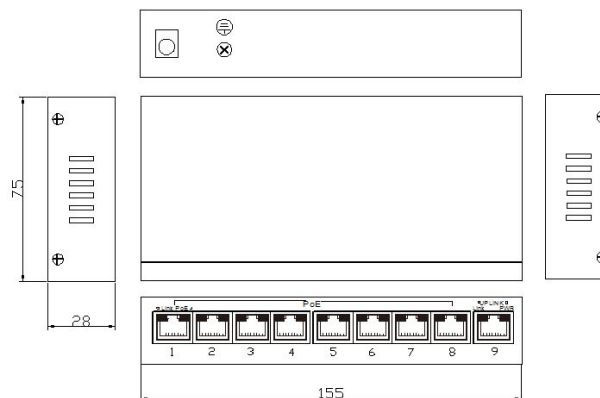
Vertical view

Back view

1. Power indicator
2. Port status indicator
3. POE status indicator
4. 10Base-T /100Base-TX port
5. Power input
6. Ground screw

## 【Dimension】

Unit(mm)



## 【Power Input】



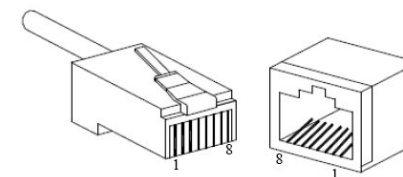
Input Power Supply : 48V/2A (96W),  
External DC power supply .

## 【Communication Connector】

All RJ-45 copper interfaces of the ES1009D-8POE-150W supports 10/100Mbps auto-negotiation for optimal speed detection through RJ-45 Category 6, 5 or 5e cables. It also supports standard auto-MDI/MDI-X that can detect the type of connection to any Ethernet device without requiring special straight or crossover cables

### 10/100BaseT(X) Ethernet port

The pin define of RJ45 port display as below, connect by UTP or STP. The connect distance is no more than 100m. 100Mbps is used 120  $\Omega$  of UTP 5 , 10Mbps is used 120  $\Omega$  of UTP 3,4,5.

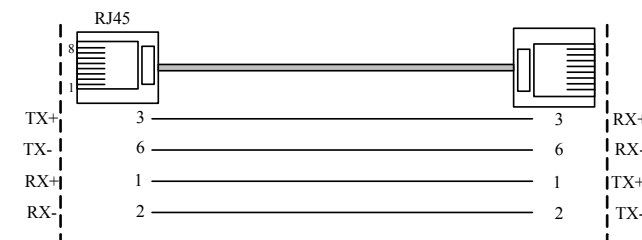


RJ 45 port support automatic MDI/MDI-X operation. can connect the PC, Server, Converter and HUB .Pin 1,2,3,6 Corresponding connection in MDI. 1→3,2→6,3→1,6→2 are used as cross wiring in the MDI-X port of Converter and HUB. 10Base-T/100Base-TX are used in MDI/MDI-X, the define of Pin in the table as below.

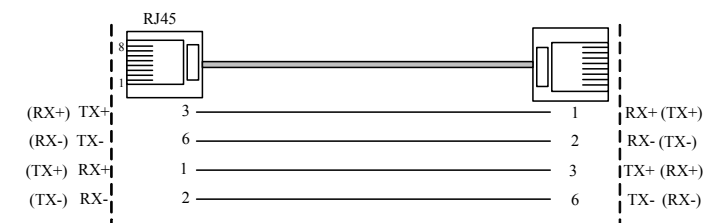
NO.	MDI signal	MDI-X signal
1	TX+	RX+
2	TX-	RX-
3	RX+	TX+
6	RX-	TX-
4, 5, 7, 8	—	—

Note: “TX±” Transmit Data±, “RX±” Receive Data±, “—” Not use.

### MDI (straight-through cable)



### MDI-X (Cross over cable)



## 【LED Indicator】

LED indicator light on the front panel of ES1009D-8POE-150W.

The function of each LED is described in the table as below.

System Indication LED			
LED	State	Description	Indicator position
<b>PWR</b> (Yellow)	ON	Power is being supplied to power input PWR input	Ninth right side
	OFF	Power is not being supplied to power input PWR input	
<b>POE</b> (Yellow)	Blinking	Working in POE mode	1~8port on the right side
<b>Link</b> (green)	ON	Port connection is active	1~9 port on the left side
	Blinking	Data is being transmitted	

## 【Installation】

Before installation, confirm that the work environment meet the installation require, including the power needs and abundant space. Whether it is close to the connection equipment and other equipments are prepared or not.

1. Avoid in the sunshine, keep away from the heat fountainhead or the area where in intense EMI.
2. Examine the cables and plugs that installation requirements.
3. Examine whether the cables be seemly or not (less than 100m) according to reasonable scheme.
4. Screw, nut, tool provide by yourself.
- 5.Power need: DC power inputs
6. Environment: -20°C to 50°C  
Relative humidity 10% to 95%

## Wiring Requirements

Cable laying need to meet the following requirements,

1. It is needed to check whether the type, quantity and specification of cable match the requirement before cable laying;
2. It is needed to check the cable is damaged or not, factory records and quality assurance booklet before cable laying;
3. The required cable specification, quantity, direction and laying position need to match construction requirements, and cable length depends on actual position;
4. All the cable cannot have break-down and terminal in the middle;
5. Cables should be straight in the hallways and turning;
6. Cable should be straight in the groove, and cannot beyond the groove in case of holding back the inlet and outlet holes. Cables should be banded and fixed when they are out of the groove;
7. User cable should be separated from the power lines. Cables, power lines and grounding lines cannot be overlapped and mixed when they are in the same groove road. When cable is too long, it cannot hold down other cable, but structure in the middle of alignment rack;
8. Pigtail cannot be tied and swerved as less as possible. Swerving radius cannot be too small (small swerving causes terrible loss of link). Its banding should be moderate, not too tight, and should be separated from other cables;
- 9.it should have corresponding simple signal at both sides of the cable for maintaining.

## 【Specification】

### Technology

Protocols Standards :

IEEE 802.3,10BASE-T

IEEE 802.3u,100 BASE-TX

IEEE 802.3af,Power Over Ethernet

IEEE 802.3at,Power Over Ethernet Plus

IEEE 802.3az,EEE(Energy Efficient Ethernet)

IEEE 802.3x, traffic control under Full-Duplex mode

PoE Standards: IEEE 802.3af/at

### Port

Fixed port : 9\*10/100 Base-T ports (9\*POE)

RJ45 port : 10/100BaseT(X) auto connection, Full /Half duplex or force work mode, and support MDI/MDI-X connection

### Exchange Properties

POE Pin-out : 1/2(+),3/6(-)

Switching Capacity :  $\geq 1.8$ Gbps

Forwarding mode : Full speed storage and forwarding

Packet Forwarding Capacity :

10M : 14880pps/port

100M : 148809pps/port

Cable line sequence : Support Auto-MDIX function, automatic identification straight-through cable and the crossover cable

Negotiation Pattern : Support port auto-negotiation function(automatically negotiate transmission rate and Duplex modes)

### Power requirements

Input Power Supply : 48V/2A (96W),External DC power supply

### LED Indicator

Interface light : Link/Act,POE Status

Power light : PWR

### Mechanical Properties

Weight : 0.96Kg

Dimensions(L×W×H) : 155mm×75mm×28mm

### Working Environment

Operating Temperature:-20~50°C

Storage Temperature : -40~70°C

Relative Humidity: 10%~95%(non-condensing)