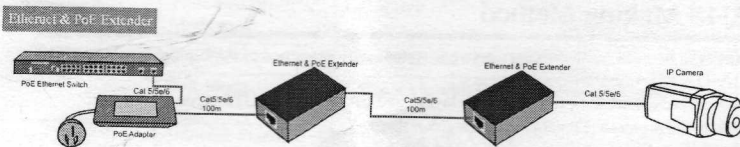# Ethernet & PoE Extender

◆ Description

Ethernet &PoE Extender is a network & power splitter which designed with IEEE 802.3af standard, it supply power to internet telephone , wireless network base station , webcam Etc.It translate data and power with CAT5/5E/6,the distance is up to 100M.

◆ Features

- No power , It translate data and power with CAT5/5E/6 ,the distance is up to 100m.and it can extend up to 300M when use 3 pcs.
- Meet standard of IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX, IEEE802.3af;
- With LED automatic detection lights, it will flash when the Ethernet is linking.
- Operation: Plug and play, no setting.

⚠ Notice

1. **Transmission distance is related to the connecting cable . To get better transmitting image, please use standard UTP Cat 5/5e/6 cable.**
2. **Network bandwidth decreases with increasing transmission distance.**

◆ Panel Diagram

ETHERNET & POE EXTENDER

power ⟹

10/100 LAN POE IN

10/100 LAN POE OUT

POWER ___ LINK

POE OUT

POWER ___ LINK

POE IN

Instruction:

1. **PoEIN: It is input port, please connect PoE Adapter.**
2. **PoE OUT : It is output port, please connect IP Camera.**
3. **Distance : the distance is up to 100m;**
4. **LED Status Indicator:**
   Power : yellow ,light on when power on;
   Ethernet: green, indicate network working status;

◆ Installation step

Please check below device and accessories before installation, if there are missing, please contact with your supplier.

1. Ethernet &PoEExtender   1pcs
2. User Manual   1pcs

Please follow the following steps

- ◆ Please turn off the system`s power before the installation;
- ◆ Please connect the PoE Ethernet Switch with PoE Adapter IN port;
- ◆ Please connect the PoE Adapter OUT port with device INPUT port;
- ◆Please connect the device OUTPUR port with IP Camera;
- ◆ Check if the installation is correct and device is good, make sure all the connection is reliable and power for the system;

◆ Specification

Item		Description
Power	Power Supply	Power Adapter
	Voltage Range	DC 48V-57V
	Consumption	<5W
Ethernet Port	Ethernet Port	POE IN / OUT Port:10/100Mbps
	Transmission Distance	100m
	Transmission Medium	Cat 5/5e/6
	PoE Protocol	Support IEEE802.3af, IEEE802.3at
	PoE Mode	Compatible with End-Span and Mid-Span
Network Switch	Network Standard	IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX/FX
	Network Delay	<20us
Protection	ESD	1a Contact Discharge 3 Level 1b Air Discharge 3 Level Per: IEC61000-4-2
	Communication port Lightning protection	Per: IEC61000-4-5 3 Level
LED Status Indicator	Power	yellow ,light on when power input;
	Ethernet	green, indicate network working status;
Environmental	Working Temperature	0℃~55℃
	Storage Temperature	-40℃~70℃
	Humidity (non-condensing)	0~95%
Mechanical	Dimension (L×W×H)	67mm×24mm×40mm
	Material	Aluminum
	Color	Black
	Weight	90g
Stability	MTBF	>30000h

◆ Problem Examination

Please remove the problem according to the following steps
- ◆ Please confirm if the device installation is correct;
- ◆ Please confirm if the RJ45 reach the standard of EIA/TIA568A OR 568B
- ◆ The maximum transmission distance depends on the signal source and cable quality, please do not over the maximum transmission distance:
- ◆ Please replace a normal device with a failure one to check if the device is broken;
- ◆ If the problem still exist , please contact the factory.

◆ RJ45 Making Method

Instruments to be used: wire crimper . network tester . wire sequence of RJ45 plug should conform with EIA/TIA 568A or 568B
- ◆ Please remove 2 cm long the insulating layer , and bar the 4 pairs UTP cable
- ◆ Separate the 4 pairs UTP cable and straighten them
- ◆ Line up the 8 pieces of cables per EIA/TIA 568A or 568B
- ◆ Cut off the cables to leave 1.5cm bare wire
- ◆ Plug 8 cables into RJ45 plug, make sure each cable is in each pin
- ◆ Use the wire crimper to crimp it
- ◆ Repeat above 5 steps to make the another end
- ◆ Using network tester to test the cable whether it is working

EIA/TIA 568A

		1 2 3 4 5 6 7 8
white/green	1	TxData+
green	2	TxData-
white/orange	3	RxData+
blue	4	
white/blue	5	
orange	6	RxData-
white/brown	7	
brown	8	

EIA/TIA 568B

		1 2 3 4 5 6 7 8
white/orange	1	TxData+
orange	2	TxData-
white/green	3	RxData+
blue	4	
white/blue	5	
green	6	RxData-
white/brown	7	
brown	8	

⚠ 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/TIA568**