

1. Package Contents

Thank you for purchasing PLANET **IEEE 802.3at PoE+ Extender, POE-E201**.

Open the box of the PoE+ Extender and carefully unpack it. The box should contain the following items:

IEEE 802.3at PoE+ Extender x 1	User's Manual x 1
	

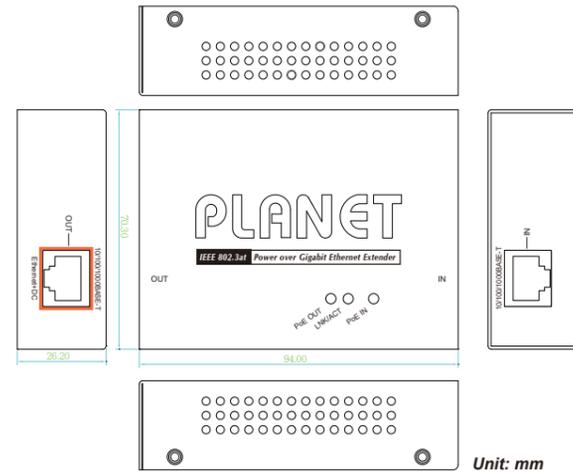
If any of these are missing or damaged, please contact your dealer immediately; if possible, retain the carton including the original packing material for future use in case there is a need to return it to us for repair.

2. Product Features

- Compliant with IEEE 802.3at Power over Ethernet Plus PSE and PD standard
- Backward compatible with IEEE 802.3af PoE
- Complies with IEEE 802.3/802.3u/802.3ab 10/100/1000BASE-T
- Extends the range of PoE by an additional 100 meters (328ft.)
- Automatically detects and protects PoE equipment from being damaged by incorrect installation
- Multiple units allowed with daisy-chain installation support
- Forwards both Ethernet data and PoE power to remote device
- No external power cable installation required
- Compact size, wall-mountable design
- Plug-and-Play installation

3. Hardware Introduction

3.1 Product Outlook



3.2 Ports Connection

IN Port	<p>Connect the PoE IN port of the POE-E201 to any of the following 802.3af/802.3at/802.3bt PSE devices like in this case a PoE injector through a CAT-5/5e/6 UTP cable:</p> <ul style="list-style-type: none"> • PoE injector • PoE Injector hub • PoE Ethernet switch
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OUT Port	<p>Connect the PoE OUT port of the POE-E201 to the any of the following 802.3af/802.3at PD devices or connect to the other POE-E201 unit through a CAT-5/5e/6 UTP cable:</p> <ul style="list-style-type: none"> • PoE IP camera • PoE VoIP phone • PoE wireless AP • PoE splitter
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3.3 LED Definition:

LED	Color	Function	
PoE IN	Green	Lit	To indicate the port is receiving 52~56V (802.3at/802.3bt) / 48V (802.3af) DC in-line power.
		Off	The remote device is not an IEEE 802.3af/at/bt PoE PSE.
LNK/ACT	Green	Lit	To indicate the port is linked up at 10/100/1000Mbps.
		Blink	To indicate that the extender is actively sending or receiving data over IN port.
PoE OUT	Amber	Lit	To indicate the port is providing 52~56V (802.3at) / 48V (802.3af) DC in-line power to remote 802.3af/at PoE PD.
		Off	To indicate the connected device is not a PoE powered device (PD).

4. Hardware Installation

This section describes the hardware features of the POE-E201. Before connecting any network device to the POE-E201, read this chapter carefully.

4.1 Before Installation

Before your installation, it is recommended to check your network environment. If there are any far-away IEEE 802.3at/802.3af devices that need to be powered on, the POE-E201 can provide you with a way to supply power to this Ethernet device conveniently.

The POE-E201 is installed between the **PSE** (power source equipment) and the **PD** (powered device); it is powered by PSE and forwards the Ethernet data and remaining POE power to the PD. The POE-E201 doesn't require an external power supply and it can be installed easily by means of plug and play, meaning the operator does not need to configure the POE-E201. The POE-E201 injects power to the PDs without affecting the data transmission performance. It offers a cost-effective and quick solution to extend power and data by an additional 100 meters.

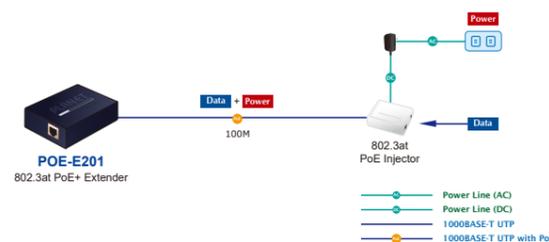
Note	<ol style="list-style-type: none"> 1. To provide you with a better PoE power and data extension quality, we strongly recommend you to use "Solid UTP Cable" when installing the POE-E201. 2. The POE-E201 can be installed with a third-party device if the device is compliant with the IEEE 802.3at/802.3af standard.
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4.2 Connecting POE-E201 to the Power Source Equipment (PSE)

There are 2 RJ45 ports in the PoE-E201, of which the **"IN"** port functions as **"PoE (Data and Power) input"** and the **"OUT"** port on the other side functions as **"PoE (Data and Power) output"**.

Step 1: Connect a standard Cat.5/5e/6 UTP cable from a **PSE**, such as PoE switch, PoE injector hub or single port PoE injector, to the **"IN"** port of the POE-E201.

Step 2: The PSE delivers both Ethernet data and PoE power over UTP cable to the POE-E201 and the **"PoE IN"** LED will be steady on.



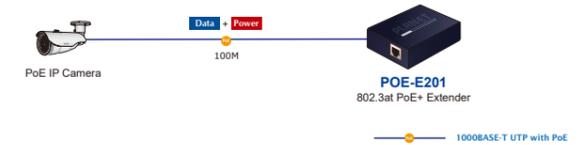
Note	<ol style="list-style-type: none"> 1. The green POE IN LED means the POE-E201 is being powered successfully with PoE class 0. 2. If the POE IN LED does not light up, check whether the cable connecting to a remote PSE, or the cable with a PC or a network device is correct or not. Or check whether the wattage of power to an IEEE 802.3at/802.3af powered device is right or not.
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4.3 Connecting POE-E201 to the Powered Device (PD)

Step 3: Connect the additional Cat.5/5e/6 cable from the **"OUT"** port of the POE-E201 to a remote **PoE PD**.

Step 4: The **"OUT"** port is a power injector that transmits data and power simultaneously between the PSE and PD.

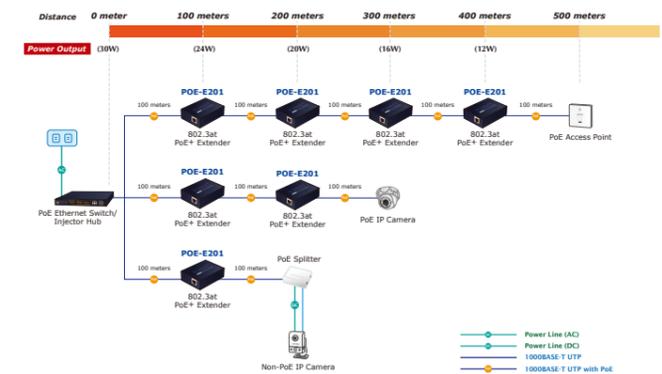
Step 5: Once the POE-E201 detects an IEEE 802.3at/802.3af PoE PD device, the **"PoE OUT"** LED indicator will light up in amber to show it is providing power.



Note	<ol style="list-style-type: none"> 1. If the connected device does not fully comply with the IEEE 802.3at/802.3af standard or in-line power device, the PoE OUT LED indicator of the POE-E201 will not be turned on. 2. According to the IEEE 802.3at/802.3af standard, the POE-E201 will not inject power if the PD is not the said standard.
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4.4 Multiple PoE Extender Installation

The POE-E201 PoE+ Extender supports multiple units with daisy-chain installation. They can be employed in series for even longer distances based on remote PoE IP Camera or PoE Wireless Access Point power re-requirement.



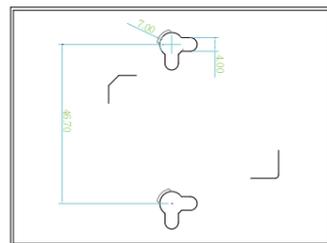
Note	<ol style="list-style-type: none"> 1. Each POE-E201 can withstand a maximum of 2.6 watts. Check the total power consumption of your IEEE 802.3at/af PD and the POE-E201 before you make the daisy-chain connection. If the overall power consumption is overloaded, the local PSE could shut down the whole power system. 2. Each POE-E201 provides an extended distance of 100 meters over the Cat.5/5e/6 UTP cable. Use of other non-standard cable could result in unstable connection.
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4.5 Wall-mount Installation

To install the POE-E201 on the wall, please follow the instructions described below.

Step 1: Find the wall that you want to mount the POE-E201 on.

Step 2: Refer to the picture below to screw the two screws on the wall. The distance between the 2 screws is **46.7mm** and the line through them must be horizontal



Step 3: Hang the POE-E201 on the screws from the wall.

4.6 Optional - DIN-rail Mounting

There are two DIN-rail holes on the left side of the POE-E201 that allows it to be easily mounted on the DIN rail. If the DIN-rail mounting is opted, the DIN-rail mounting kit (RKE-DIN) has to be ordered as it is not included in the package. The following steps for DIN-rail mounting are shown below:

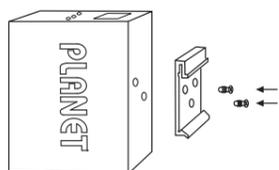


Caution You must use the screws supplied with the mounting brackets. Damage caused to the parts by using incorrect screws would invalidate your warranty.

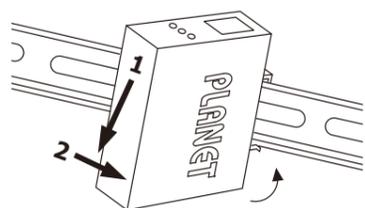
5. Product Specifications

Model	POE-E201
Interfaces	
LAN IN	1 x 10/100/1000BASE-T Ethernet with IEEE 802.3at/802.3af PoE "Data + DC" in Auto MDI/MDI-X, auto-negotiation RJ45 connector
LAN OUT	1 x 10/100/1000BASE-T Ethernet with IEEE 802.3at/802.3af PoE "Data + DC" out Auto MDI/MDI-X, auto-negotiation RJ45 connector
Power over Ethernet	
PoE Standard	IEEE 802.3at Power over Ethernet Plus Backward compatible with IEEE 802.3af Power over Ethernet
PoE Power Supply Type	End-span/Type A
Power Pin Assignment	1/2 (+), 3/6 (-)
PoE Power Output	44~52V DC, 510mA; max. 26 watts

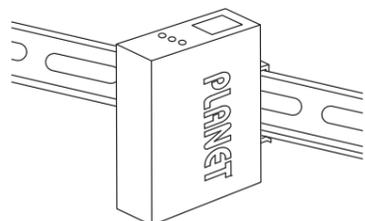
Step 1: Screw the DIN-rail bracket on the POE-E201.



Step 2: First put the upper DIN-rail bracket on to the rail shown below and then the lower bracket on to the rail to finish the mounting.



Step 3: Make sure the POE-E201 unit is tightly fixed on the track.



Maximum Distance	500 meters with daisy-chain installation of 4 units (Refer to section 4.4)
Hardware Specifications	
Data Rate	10/100/1000Mbps
Switch Architecture	Store-and-Forward
Switch Throughput	10Mbps: 14880pps@64Bytes 100Mbps: 148810pps@64Bytes 1000Mbps: 1488000pps@64Bytes
Maximum Frame Size	9K bytes
Flow Control	Back pressure for half duplex IEEE 802.3x pause frame for full duplex
LED Indicators	<ul style="list-style-type: none"> 1 x PoE IN (Green) 1 x LAN Data (Green) 1 x PoE OUT (Amber)
Protection	ESD (Ethernet): 2KV Surge (EFT for power): 2KV
Dimensions (W x D x H)	94 x 70 x 26 mm
Weight	189g
Power Requirements	IEEE 802.3at PoE+ compliant with voltage within 52~56V DC IEEE 802.3af PoE compliant with voltage within 48~51V DC
System Power Consumption	2.6 watts (System on)

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Power over Gigabit Ethernet Extender

▶ POE-E201



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Warning:
This device is compliant with Class A of CISPR 32.
In a residential environment this device may cause radio interference.
2350-AF0330-002



Case	Metal
Installation	Wall or DIN-rail mounting
Network Cable*	10BASE-T: 4-pair UTP Cat. 5 up to 100m (328ft) 100BASE-TX: 4-pair UTP Cat. 5 up to 100m (328ft) 1000BASE-T: 4-pair UTP Cat. 5e, 6, 7 up to 100m (328ft) EIA/TIA-568 100-ohm STP (100m or 328ft)
Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Standard Compliance	IEEE 802.3 10BASE-T Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3x Flow Control
Environment	
Temperature	Operating: -10~60 degrees C Storage: -40~85 degrees C
Humidity	Operating: 5% to 95%, Storage: 5% to 95% (non-condensing)

*** Remarks :**

The actual distance of 100 meters could not measure up owing to voltage drop on the wire. In addition, the distance can be compromised based on the quality of the UTP cable and environment.

6. Customer Support

Thank you for purchasing PLANET products. You can browse our online FAQ resource on PLANET web site first to check if it could solve your issue. If you need more support information, please contact PLANET support team.

PLANET online FAQs :
<http://www.planet.com.tw/en/support/faq>

Support team mail address :
support@planet.com.tw