

1. Overview

Thank you for purchasing PLANET **IEEE 802.3at Power over Ethernet Plus Splitters**. These PoE splitters will work with any Power Sourcing Equipment (PSE) that also supports the IEEE 802.3at standards. The models below are included:

| Model | PoE Standard | DC Power Out | Power Input | Pass-thru. Speed |
|----------|-----------------|--------------|-------------|------------------|
| POE-161S | IEEE 802.3at/af | 5V/12V | 52~56V DC | 10/100/1000Mbps |
| POE-162S | IEEE 802.3at/af | 12V/24V | 52~56V DC | 10/100/1000Mbps |

Unless specified, the term **"802.3at PoE+ Splitter"** in the following sections means the models listed above.

- 1 -

2. Package Contents

Open the box of the **802.3at PoE+ Splitter** and carefully unpack it. The box should contain the following items:

| POE-161S | POE-162S |
|--|--|
| <ul style="list-style-type: none"> The IEEE 802.3at Gigabit Power over Ethernet Plus Splitter x 1 User's Manual x 1 15cm UTP Straight Network Cable x1 DC Plug Cable x 2 <ul style="list-style-type: none"> - DC Plug Cable 5.5/2.5mm to 5.5/2.5mm x 1 - DC Plug Cable 5.5/2.5mm to 5.5/2.1mm x 1 | <ul style="list-style-type: none"> The IEEE 802.3at Gigabit Power over Ethernet Plus Splitter x 1 User's Manual x 1 15cm UTP Straight Network Cable x1 DC Plug Cable x 2 <ul style="list-style-type: none"> - DC Plug Cable 5.5/2.5mm to 5.5/2.5mm x 1 - DC Plug Cable 5.5/2.5mm to 5.5/2.1mm x 1 |



If any of these pieces are missing or damaged, please contact your dealer immediately. If possible, retain the carton including the original packing material, and use them again to repack the product in case of a need to return for repair.

- 2 -

3. Product Outlook

POE-161S

There are two RJ45 twisted-pair jacks, one LED indicator, one DC 5V/4.5A, 12V/2A DIP switch and one DC plug connector.



Figure 1: POE-161S Overview

POE-162S

There are two RJ45 twisted-pair jacks, one LED indicator, one DC 12V/2A, 24V/1A DIP switch and one DC plug connector

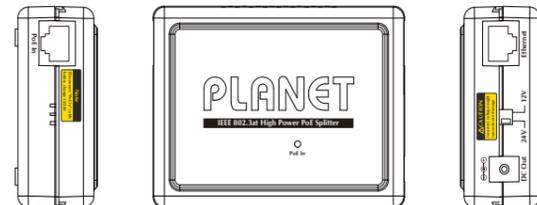


Figure 2: POE-162S Overview

- 3 -

4. LED Indication

| LED | Color | Function |
|--------|-------|--|
| PoE In | Green | Lights to indicate the port is connected with IEEE 802.3at PSE device. |

- 4 -

5. Hardware Installation

This section describes the hardware features of **802.3at PoE+ Splitter**. Before connecting any network device to the **802.3at PoE+ Splitter**, refer to this chapter carefully.

5.1 Before Installation

PLANET **802.3at PoE+ Splitter** separates the power out and provides two kinds of DC power output through its DIP switch, and its voltage and current are shown below:

| Model | DIP Switch for DC Voltage Output | Default Mode |
|----------|-----------------------------------|--------------|
| POE-161S | <p>5V DC, 4.5A 12V DC, 2A</p> | 5V DC |
| POE-162S | <p>12V DC, 2A 24V DC, 1A</p> | 12V DC |

- 5 -

The diameter of the hole of the 802.3at PoE+ Splitter's DC plug connector measures 2.5mm. The POE-161S and POE-162S provide 5V/12V and 12V/24V DC power output through DIP switch setting, respectively.

PLANET **802.3at PoE+ Splitter** and PLANET **802.3at PoE+ Injector** (e.g. POE-161, POE-163 and POE-164) can be installed in pair. Use of third-party **802.3at PoE+ Injector** device is allowed if the device complies with IEEE 802.3at standard.

- 6 -

5.2 802.3at Device Installation

1. PLANET **802.3at PoE+ Splitter** also provides an alternative to making the non IEEE 802.3af/802.3at devices connect with an IEEE 802.3at PSE power device like Power over Ethernet Plus Injector or Power over Ethernet Plus Switch as the figure is shown below.

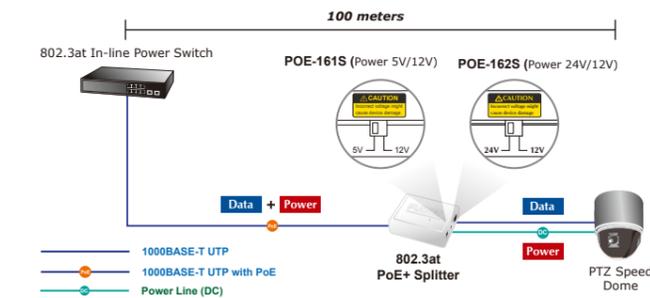


Figure 3: "802.3at PoE+ Splitter" Connecting to IEEE 802.3at Device

With IEEE 802.3af/802.3at standard, PLANET **802.3at PoE+ Splitter** also can function with IEEE 802.3af/802.3at End-span Switch that feeds power over Pins 1, 2, and 3, 6.

- 7 -

5.3 802.3at PoE+ Injector and 802.3at PoE+ Splitter Installation

The **802.3at PoE+ Splitter** and **802.3at PoE+ Injector** can run in pair to provide DC Power for those non-PoE remote devices or Ethernet equipment. The table below shows PLANET **802.3at PoE+ Injector** models:

| Model | PoE Standard | Max. PoE Out | Power In | Pass-thru. Speed |
|---------|-----------------|--------------|----------|------------------|
| POE-161 | IEEE 802.3at/af | 30 watts | 56V DC | 10/100/1000Mbps |
| POE-163 | IEEE 802.3at/af | 30 watts | 54V DC | 10/100/1000Mbps |
| POE-164 | IEEE 802.3at/af | 30 watts | 53V DC | 10/100Mbps |

Installation Steps:

- [Switch & 802.3at PoE+ Injector]** Connect a standard network UTP cable from a switch/workstation to the "Ethernet" port of the **802.3at PoE+ Injector**, which gets DC power from the attached power adapter.
- [802.3at PoE+ Injector & 802.3at PoE+ Splitter]**
 - Connect a long UTP cable between the "Ethernet+DC" (or "PoE") port of the 802.3at PoE+ Injector and the "PoE IN" port of the **802.3at PoE+ Splitter**.
 - The PoE LEDs of both the **802.3at PoE+ Injector** and **802.3at PoE+ Splitter** will light up continuously.

- 8 -

3. [802.3at PoE+ Splitter]

- Connect the UTP cable in the package from the "Ethernet" port of the **802.3at PoE+ Splitter** to the RJ45 port of a remote device.
- Properly adjust the DC power output and connect the DC plug from the "DC OUT" of the **802.3at PoE+ Splitter** to the remote device.

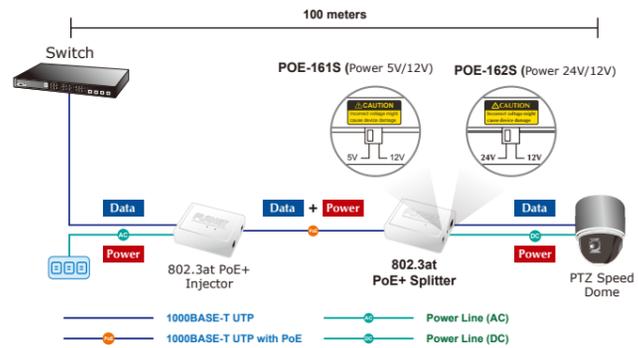


Figure 4: 802.3at PoE+ Injector and 802.3at PoE+ Splitter Architecture



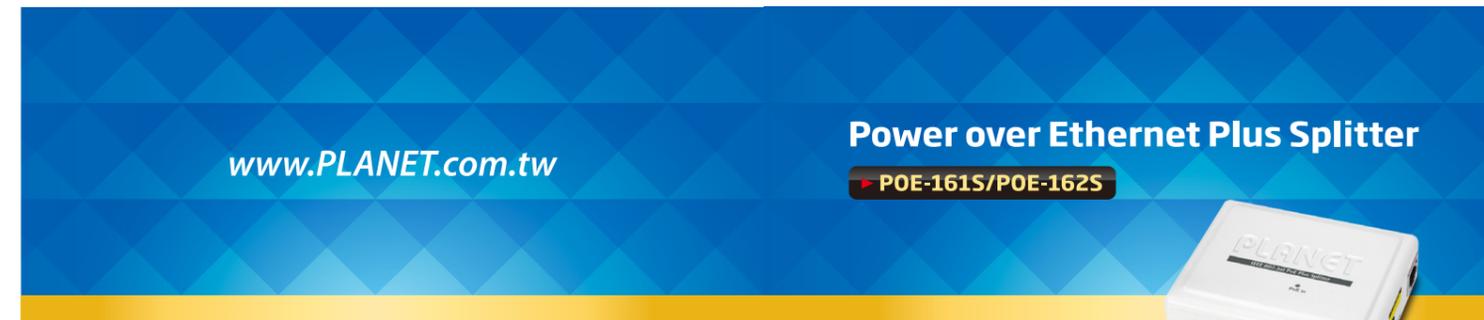
Note

Please ensure the **802.3at PoE+ Splitter** output voltage is correct before supplying power to a remote device; otherwise, it may damage the remote device.

6 Product Specifications

| Product | POE-161S | POE-162S |
|---------------------------------------|---|---------------------------|
| Hardware Specifications | | |
| Hardware Version | 3 | 2 |
| Interface | "Data" Output Port: 1 x RJ45 STP | |
| | "PoE (Data + Power)" Input Port: 1 x RJ45 STP | |
| | DC Out Plug Connector: 1 | |
| LED Indicator | System: PoE-in-Use x 1 (Green) | |
| Network Cable | UTP Cat. 5/5e/6, up to 100m (328ft) | |
| Data Rate | 10/100/1000Mbps | |
| Dimensions (W x D x H) | 95 x 70 x 25 mm | 95 x 70 x 25 mm |
| Weight | 108g | 111g |
| Power over Ethernet | | |
| PoE Standard | IEEE 802.3at/af Power over Ethernet/PD | |
| PoE Power Input | IEEE 802.3at 52~56V DC | |
| DIP Switch | 5V/12V DC output voltage | 12V/24V DC output voltage |
| Number of Devices that can be powered | 1 | 1 |

| Standards Conformance | | |
|--|--------------------------|---|
| 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 | ■ | ■ |
| Regulatory Compliance | FCC Part 15 Class A, CE | |
| Environment | | |
| Operating Temperature | 0 ~ 50 degrees C | |
| Storage Temperature | -10 ~ 70 degrees C | |
| Humidity | 5 ~ 95% (non-condensing) | |



PLANET Technology Corp.

10F., No. 96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan

2350-AF0290-001

Warning:
This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.



Energy Saving Note of the Device

This power required device does not support Standby mode operation. For energy saving, please remove the DC-plug or push the hardware Power Switch to OFF position to disconnect the device from the power circuit. Without removing the DC-plug from or switching off the device, the device will still consume power from the power source. In view of Saving the Energy and reducing the unnecessary power consumption, it is strongly suggested to power off or to remove the DC-plug from the device if this device is not intended to be active.



EC Declaration of Conformity

For the following equipment:

*Type of Product : IEEE 802.3at Gigabit High Power over Ethernet Splitter

*Model Number : POE-161S, POE-162S

* Produced by:

Manufacturer's Name : PLANET Technology Corp.
Manufacturer's Address: 10F., No.96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan, R.O.C.

is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility Directive on (2014/30/EU).

For the evaluation regarding the EMC, the following standards were applied:

| | |
|----------|------------------|
| EN 55032 | (2015 + AC:2016) |
| EN 55024 | (2010 + A1:2015) |
| EN 55035 | (2017) |

Responsible for marking this declaration if the:

Manufacturer Authorized representative established within the EU

Authorized representative established within the EU (if applicable):

Company Name: Planet Technology Corp.
Company Address: 10F., No.96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan, R.O.C.

Person responsible for making this declaration

Name, Surname: Kent Kang

Position / Title: Director

Taiwan
Place

Nov. 1, 2018
Date

Kent Kang
Legal Signature

PLANET TECHNOLOGY CORPORATION

e-mail: sales@planet.com.tw http://www.planet.com.tw
10F., No.96, Minquan Rd., Xindian Dist., New Taipei City, Taiwan, R.O.C. Tel:886-2-2219-9518 Fax:886-2-2219-9528