

# Product Specifications

## 60-watt Ultra Power over Ethernet Injector

**POE-172**

Version 1.0

This document contains confidential proprietary information and is property of PLANET. The contents of this document should not be disclosed to unauthorized persons without the written consent of PLANET.

### Change History:

<b>Revision:</b>	<b>Date:</b>	<b>Author:</b>	<b>Change List</b>
Version 1.0	2016/7/4	Marc Liao	Initial Release

<b>Author:</b>	Marc Liao	<b>Editor:</b>	Kent Kang
<b>Reviewed By:</b>	Kent Kang	<b>Approved By:</b>	Kent Kang

## 1. PRODUCT DESCRIPTION



PLANET POE-172 Ultra Power over Ethernet Injector provides a maximum of **60-watt** power and high-speed Ethernet data connection anywhere in your network infrastructure. PLANET **single port** Ultra Power over Ethernet solution contains the following products:

- **POE-172:** 60-watt Ultra Power over Ethernet Injector
- **POE-171S:** 12V/19V/24V DC Power over Ethernet Splitter

### Quick and Easy Gigabit Ultra Power PoE Network Deployment

The POE-172 is a **Single-Port, Ultra Power over Ethernet Injector** with a maximum of **60 watts** of power output over Ethernet cables. It is designed specifically to meet the demand for growing higher power required network equipment such as:

- ▶ **PTZ Speed Dome**
- ▶ **AIO (All-in-One) touch PC**
- ▶ Remote **digital signage** display
- ▶ Other network devices that need higher power to work normally

The POE-172 delivers the Ethernet digital data with 56V DC power over the twisted pair cables as a 60-watt Power over Ethernet Injector, and the connected Ultra Power over Ethernet splitter, the POE-171S, will separate the digital data and the power into three optional outputs (**12V/19V/24V DC**) with distance up to 100 meters.

### 60 watts of Power over 4-pair UTP

The POE-172 and POE-171S Ultra PoE solutions use the same cabling standard such as IEEE 802.3at/af PoE. Instead of delivering power over 2-pair twisted UTP – be it end-span (Pins 1, 2, 3 and 6) or mid-span (Pins 4, 5, 7 and 8), it provides the capability to source up to 60 watts of power by using all the four pairs of standard Cat. 5e/Cat. 6 Ethernet cabling. In the new 4-pair system, two PSE controllers will be used to power both the data pairs and the spare pairs.

### All-in-One and Compact Size Design

With concepts of "Easy to install", "Plug and Play" and "Simple troubleshooting" for business and home users, the POE-172 is an all-in-one, single-port PoE+ injector with internal power supply. In the compact size housing, the POE-172 provides one 100-240V AC input socket on its front panel, two LEDs (System POWER and PoE ACTIVE) on the top side and two RJ45 ports (PoE port and LAN port) on the rear panel. Simply plug in the Ethernet cables and power cord, and the POE-172 is ready to provide high-speed network communication and ultra power PoE injector functions simultaneously with no need of software configuration.



Power Side



Top Side LED



LAN Connector Side

### Quick and Easy Cabling Installation for PoE Network Deployment

Backward compatible with both 802.3af and 802.3at PoE standards, the POE-172 allows users to flexibly deploy standard and high powered devices to transfer data and power simultaneously through one Ethernet cable for up to 100 meters. The POE-172 frees the security IP camera and wireless AP deployment from restrictions of power outlet locations and the additional AC wiring. It thus reduces cables and eliminates the need for electrical outlets on the wall, ceiling or any unreachable place, and most of all, it reduces installation time.

## 2. PRODUCT FEATURES

#### ■ Interface

- 2 x RJ45 interfaces
  - 1-port 10/100/1000Mbps **Data + Power** output
  - 1-port 10/100/1000Mbps **Data input**
- 1 x AC 100-240V input power socket

#### ■ Power over Ethernet

- Ultra Power over Ethernet PSE
- Up to 60 watts of power on 4-pair UTP
- Backward compatible with IEEE 802.3at/af PD device
- Auto-detection of PoE IEEE 802.3at/af equipment and devices to check whether there's any damage done via incorrect installation
- Remote power feeding up to 100m

#### ■ Hardware

- All-in-one compact size design
- Internal power supply
- LED indicators for Power LED and Active LED (PoE ready/in-use)

### 3. PRODUCT SPECIFICATIONS

#### 3.1 MAIN COMPONENTS

PoE Power IC: Microsemi PD69101 x 2

#### 3.2 FUNCTION SPECIFICATIONS

Product	POE-172	
<b>Hardware Specifications</b>		
Interface	LAN	1 x RJ45 STP, "Data" Input Port
	PoE	1 x RJ45 STP, "Data + Power" Output Port
	AC Connector	1 x AC input power socket, IEC-320 C6
Network Cable	Ultra PoE (60W)	4-pair UTP Cat. 5, 5e, 6 up to 100m (328ft)
	802.3af/at PoE (15W/30W)	2-pair UTP Cat. 3, 4, 5, up to 100m (328ft)
LED Indicator	System: Power x 1 (green) PoE Port: Active, PoE ready/in-use x 1 (green)	
Data Rate	10/100/1000Mbps	
Unit Output Voltage	DC 56V, 1.08A	
Power Requirements	100-240V AC @50/60Hz, 1.5A max.	
Power Consumption	60 watts max.	
<b>Power over Ethernet</b>		
PoE Standard	Ultra PoE over 4-pair UTP cable, IEEE 802.3at Power over Ethernet Plus End-span/Mid-span PSE	
PoE Power Supply Type	End-span + Mid-span	
Power Pin Assignment	Pair 1 End-span: 1/2 (+), 3/6 (-) Pair 2 Mid-span: 4/5 (+), 7/8 (-)	
PoE Power Output	DC 56V/60-watt PoE via 4-pair DC 56V/30-watt PoE via 2-pair	
<b>Standards Conformance</b>		
Standards Compliance	IEEE 802.3 10BASE-T Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3af Power over Ethernet	

#### 3.3 PHYSICAL SPECIFICATIONS:

**Dimensions:**

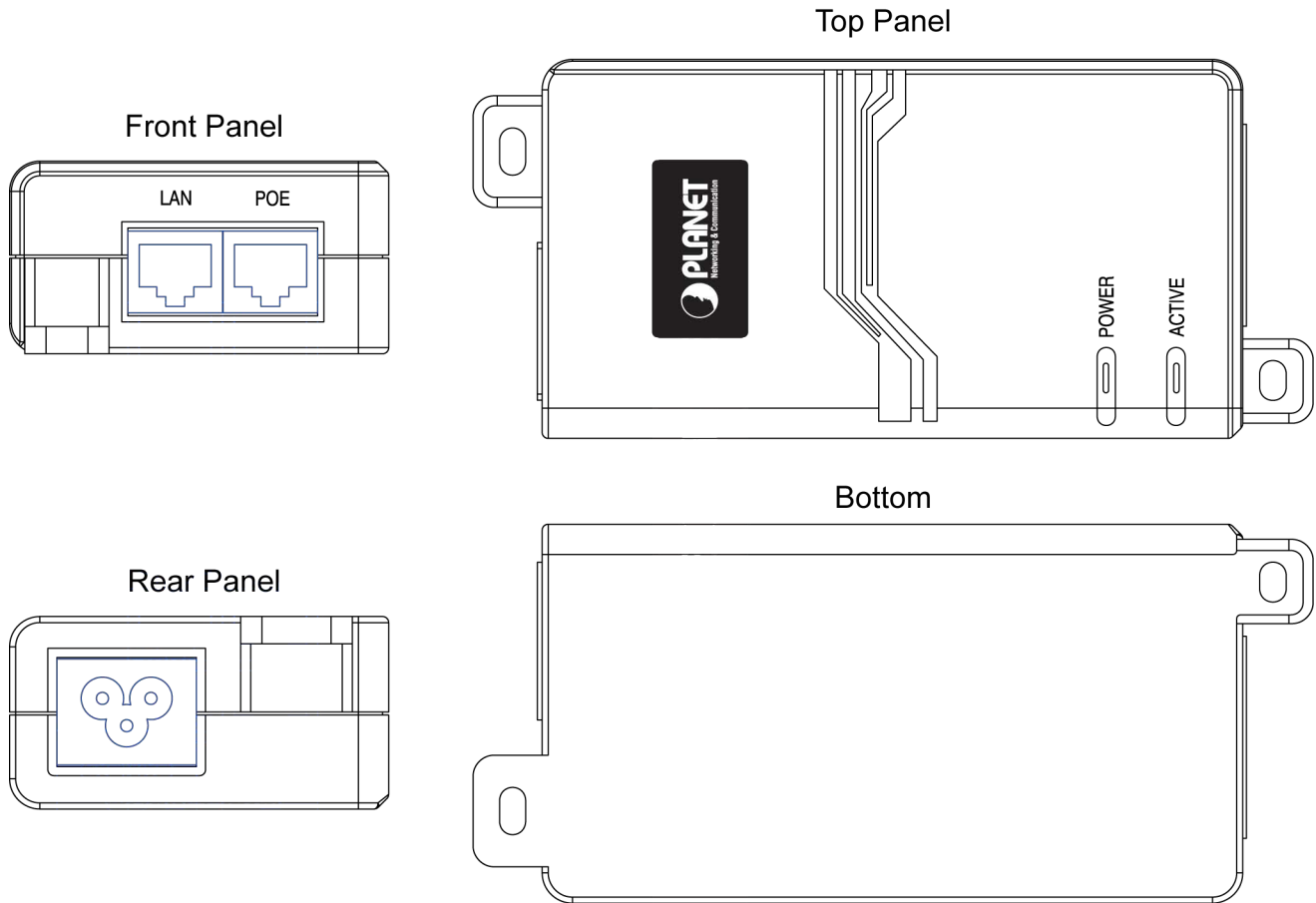
115 x 62.5 x 31 mm (W x D x H)

**Weight:**

235g

## ■ Product Outlook

The POE-172 provide one 100-240V AC input socket on front panel, two LEDs (System POWER and PoE ACTIVE ) at top side and two RJ45 ports (POE port and LAN port) at rear panel.



## ■ LED Definition

The LED Definition of the POE-172 is shown below:

LED	Color	Function
POWER	Green	Lights to indicate that the Ultra PoE Injector has power.
ACTIVE	Green	Lights to indicate the port is providing 56V DC in-line power.

## 3.4 ENVIRONMENTAL SPECIFICATION

### Operating:

- Temperature:** 0°C ~ 50 degrees C
- Relative Humidity:** 5% ~ 95% (non-condensing)

### Storage:

- Temperature:** -10°C ~ 70 degrees C
- Relative Humidity:** 5% ~ 95% (non-condensing)

### 3.5 ELECTRICAL SPECIFICATION

**Input Voltage:** 100-240V AC @50/60Hz, 1.5A max.

### 3.6 REGULATORY COMPLIANCE

FCC Part 15 Class B, CE

### 3.7 RELIABILITY

MTBF > 50,000 hrs @ 25 degrees C

### 3.8 BASIC PACKAGING

■ POE-172	x 1
■ User's Manual	x 1
■ AC Power Cord	x 1

### 3.9 PACKING DIMENSIONS

<b>Dimensions: Box</b>	160 (W) x 98 (D) x 98 mm (H)
<b>Dimensions: Carton</b>	450 (W) x 520 (D) x 350 mm (H)
<b>Weight (Total):</b>	TBD (gross weight)
<b>Quantity:</b>	50pcs in one carton