Single-Port 10/100/1000Mbps 60W Ultra PoE Injector

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.

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
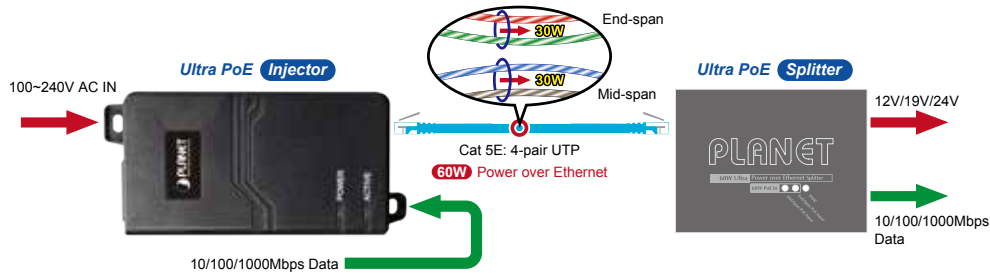- Remote power feeding up to 100m

Hardware

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

Watts

60 — Thin Client, POS System, Laptop, Digital Signage

30 — Door Phone, Video Phone, PTZ Camera, WiMAX AP/CPE

15 — IP Phone, IP Camera, Wireless AP/Router

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.

PoE Standard	IEEE 802.3af (802.3at Type 1)	IEEE 802.3at (802.3at Type 2)	Ultra PoE (POE-172)
Maximum Power delivered by PSE	15.4 watts	30 watts	60 watts
Power Available at PD	12.95 watts	25.5 watts	50 watts
Voltage Range	48V	50~57V	56V
Twisted Pair Used	2-pair		4-pair
Supported Modes	End-span or Mid-span		End-span + Mid-span
Supported Cabling	Cat. 3/5/5e/6		Cat. 5e/6

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.
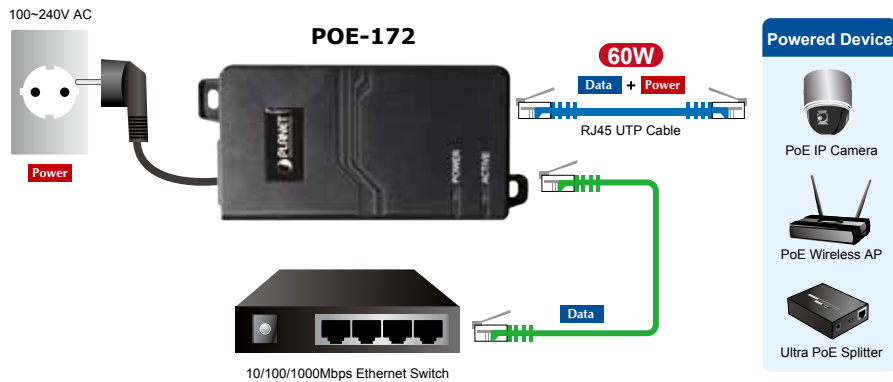
Power Side

Top Side LED

LAN Connector Side

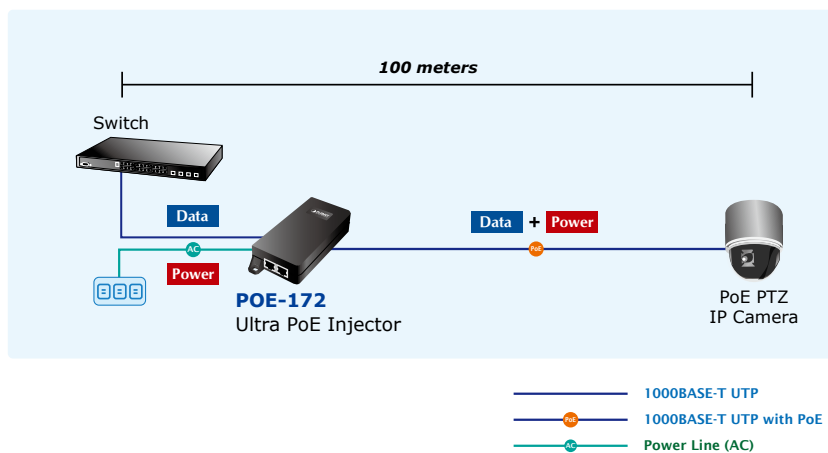## Quick and Easy Cabling Installation for PoE Network Deployment

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.
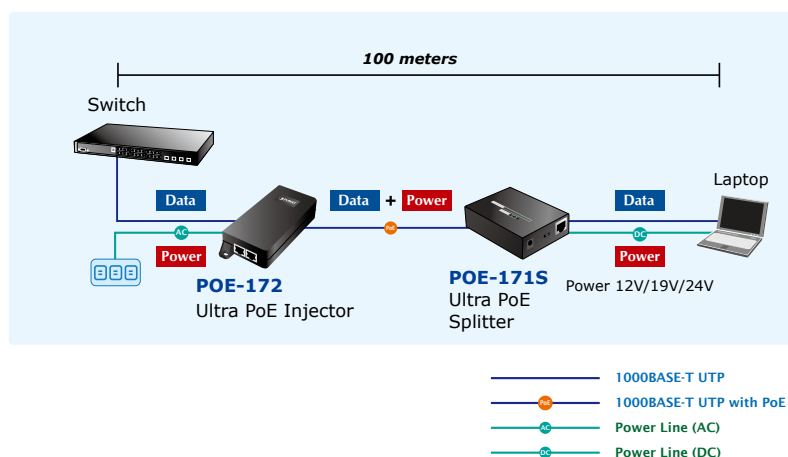

Applications

Installation of Ultra PoE Injector

Due to the backward capability of IEEE 802.3at/af PoE standard, the POE-172 can directly connect with any IEEE 802.3at/af end-nodes such as PTZ (Pan, Tilt & Zoom) speed dome network cameras, color touch-screen Voice over IP (VoIP) telephones, and multi-channel wireless LAN access points.
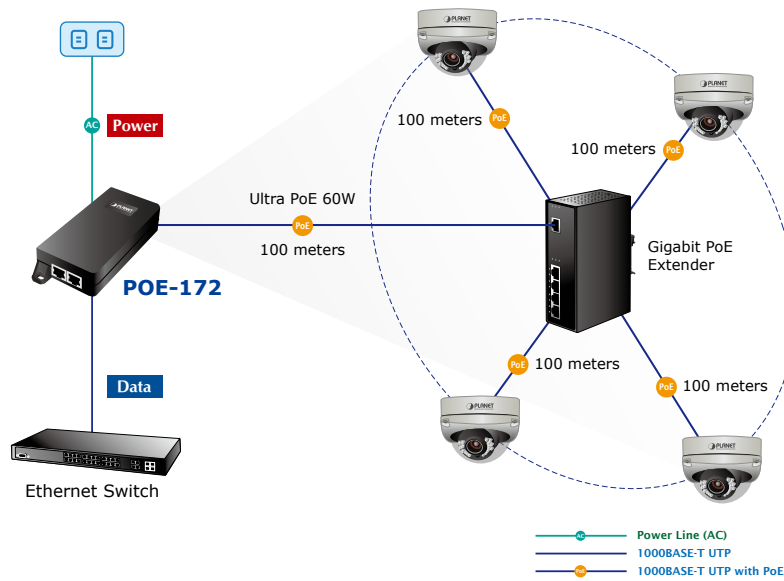

Installation of Ultra PoE Injector and Splitter

For a place which is hard to find the power inlet, the POE-172 and POE-171S operate as a pair to provide the easiest way to power your Ethernet devices which need high power input, such as PTZ (Pan, Tilt & Zoom) network cameras, PTZ speed dome, color touch-screen Voice over IP (VoIP) telephones, and multi-channel wireless LAN access points installed on the top of the building or used in enterprise office or home.

Extended Installation of IEEE 802.3at Injector and PoE Network

Is 100-meter cable long enough for a wide range of IP surveillance deployments? The answer is certainly not. To achieve the benefits of IP surveillance and also the long-distance IP camera distribution, the POE-172 and PLANET PoE Extender, IPOE-E174, can be a quick and cost-effective option. In the simplest application, the PoE Extender enables a PoE IP camera to be installed up to 200 meters away from the POE-172. The POE-172 delivers PoE power over the first 100 meters to the PoE Extender over UTP cables, and then the PoE Extender forwards the Ethernet data and remaining PoE power to the remote PoE IP cameras.

Specifications

Model	POE-172		
Hardware Specifications			
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	
Dimensions (W x D x H)		115 x 62.5 x 31 mm	
Weight		235g	
Unit Output Voltage		DC 56V, 1.08A	
Power Requirements		100-240V AC @50/60Hz, 1.5A max.	
Power Consumption		60 watts max.	
Operating Temperature		0 ~ 50 degrees C	
Storage Temperature		-10 ~ 70 degrees C	
Operating Humidity		5 ~ 95%, relative humidity, non-condensing	
Storage Humidity		5 ~ 95%, relative humidity, non-condensing	
Power over Ethernet			
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	
Standards Conformance			
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	
Regulatory Compliance		FCC Part 15 Class B, CE	

Ordering Information

POE-172	Single-Port 10/100/1000Mbps 60W Ultra PoE Injector

Related Products

POE-171	Single-Port 10/100/1000Mbps 60W Ultra PoE Injector
POE-173	60-watt Ultra Power over Ethernet Injector
POE-171S	60-watt Ultra Power over Ethernet Splitter with 12V/19V/24VDC output (10/100/1000Mbps)
IPOE-E174	1-port Ultra PoE to 4-port 802.3af/at Gigabit PoE Extender
POE-162S	IEEE 802.3at Gigabit High Power over Ethernet Splitter with 12V/24V DC output (10/100/1000Mbps)
POE-E201	IEEE 802.3at Power over Gigabit Ethernet Extender (10/100/1000Mbps)

POE-172