Product Specifications

IEEE 802.3af/at Power over Ethernet Tester

POE-TESTER

Version 1.0

Change History:

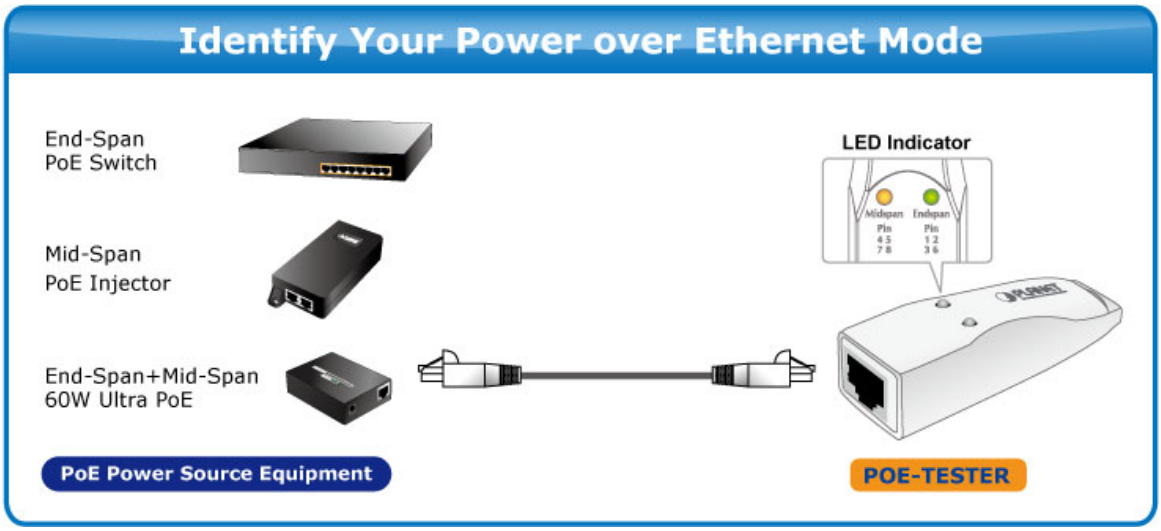
Revision	Date	Author	Change List
Version 1.0	2013/7/6	Kent Kang	Initial release

Author	Kent Kang	**Editor:**	Kent Kang
Reviewed by:	Tom Shih	**Approved by:**	Tom Shih

1. PRODUCT DESCRIPTION

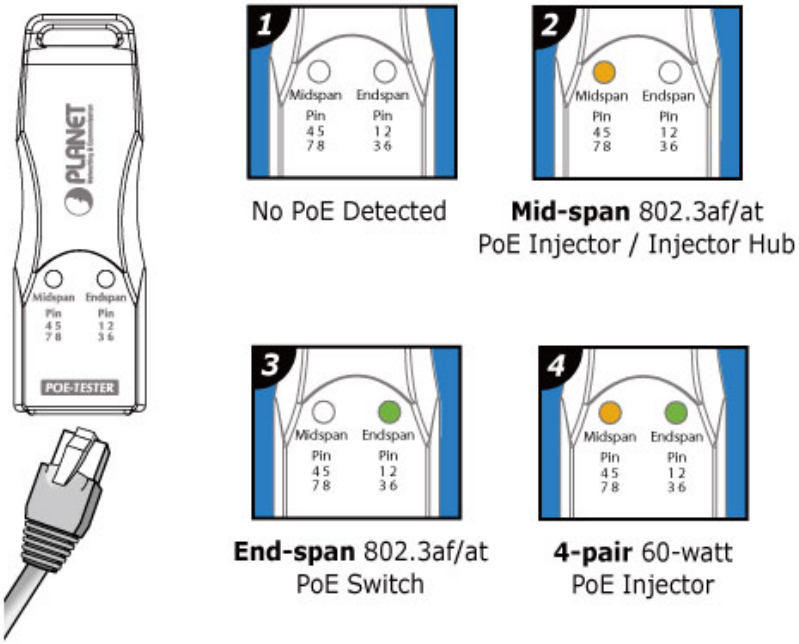
Quick and easy test on RJ-45 outlet for Power over Ethernet existence in a second

PLANET POE-TESTER is an easy-to-use PoE diagnostic adapter for network installers, company MIS and even home users to quickly identify the existence of Power over Ethernet on applications network. It is designed to detect if the IEEE 802.3af/at PoE voltage runs over the UTP cable and identify the type of PSE (Power Source Equipment) for troubleshooting.



Plug and Show LED Indicators

Simply connect the POE-TESTER to the PSE or the RJ-45 outlet and the LED will light up when it detects the PoE voltage via the UTP cable and identifies the PSE to be mid-span, end-span, or even the latest 4-pair 60-watt ultra PoE in a second.



Identify PoE PSE Modes

There are two LEDs on the POE-TESTER for PoE identification. A Power over Ethernet system comprises a **PSE (Power Sourcing Equipment)** and a **PD (Powered Device)**. The PSE is a device that will provide power in a PoE setup. There are two types of PSE, Mode A and Mode B. The PSE may either be a **Mode A, end-span PoE switch** or a **Mode B, mid-span PoE injector**.

PoE PSE Modes	UTP Power Pin Assignment	PSE Devices
Mode A / End-span	Pin 1,2,3,6	PoE Switch
Mode B / Mid-span	Pin 4,5,7,8	PoE Single-port Injector PoE Multi-port Injector Hub

The PD is a PoE-enabled terminal by PSE and thus consumes energy, such as IP network cameras, VoIP phones and wireless access points and more.

PoE Installation Troubleshooting

Although PDs that implement only Mode A with end-span or Mode B with mid-span are disallowed by the IEEE 802.3af/at standard, there are still some of the PDs that are designed to work with only one of the modes. Thus, it will cause the PoE PSE and PD not to be compatible with each other in the applications. For example, an end-span designed PoE switch cannot power on the remote mid-span only wireless access point. But most of the time, the installers would not exactly know what the remote PSE devices are. PLANET POE-TESTER checks your UTP cable for power and identifies its source, mid-span or end-span. Make sure at the end of UTP cable there is existence of PoE, and then the next step is to check if the PD is compatible with the PSE, or it is a malfunctioned PD.

2. PRODUCT FEATURES

- Quickly tests RJ-45 outlet for Power over Ethernet existence
- Two LEDs indicate the types of PSE (power source equipment)
- End-span PoE switch
- Mid-span PoE injector / injector hub
- 4-pair, 60-watt ultra PoE injector
- Compliant with IEEE 802.3at/af standard
- Compact size, Plug and Play design

3. PRODUCT SPECIFICATIONS

3.1 MAIN COMPONENTS

N/A

3.1 FUNCTION SPECIFICATIONS

Product	POE-TESTER
Hardware Specifications	
Interface	■ 1 x RJ-45 TP connectors • PoE Power Input (PD)
LED indicators	■ End-span / Pin 1236 (Green) • The PoE voltage is detected on pair 1,2,3,6 ■ Mid-span / Pin 4578 (Orange) • The PoE voltage is detected on pair 4,5,7,8
Power input	IEEE 802.3at/af compliant with voltage within 36~57V
Dimensions (D x W x H)	70.1 x 23 x 22 mm
Weight	20g
Cabling	UTP: Cat. 5 UTP cable or above, 100m maximum
Environments	
Temperature	-10° to 60°C (operating)
Humidity	5% to 95% (non-condensing)
Standards Compliance	
Standard	IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus
Emission:	CE Compliance

3.3 PHYSICAL SPECIFICATIONS:

Dimensions:

70.1 x 23 x 22 mm (D x W x H)

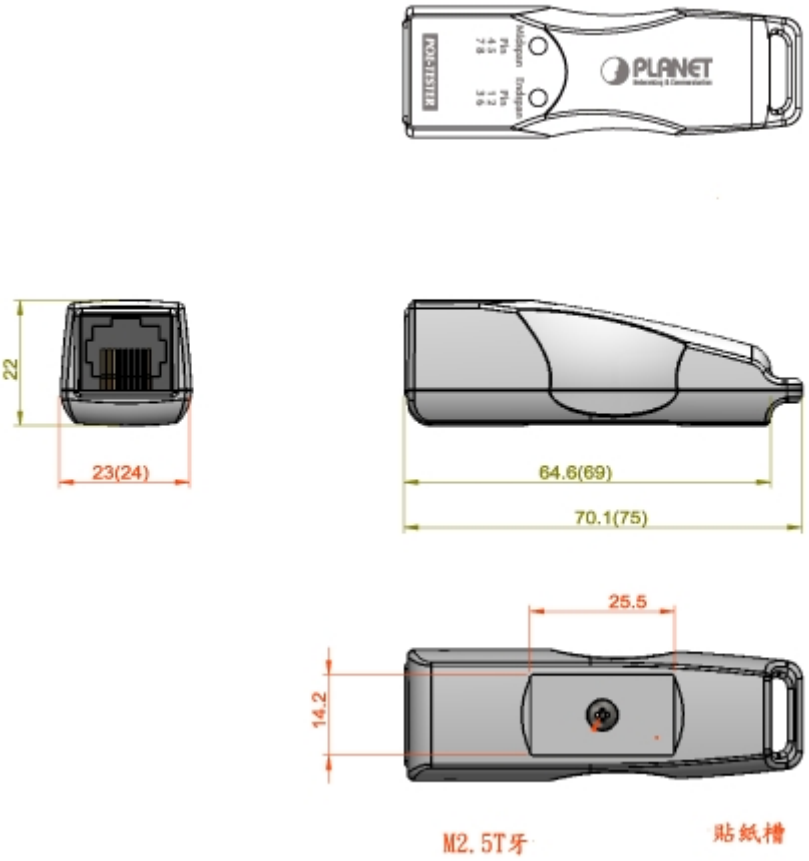
Weight:

20g

LED Definition:

LED	Color	Function
End-span / Pin 1236	Green	The PoE voltage is detected on pair 1,2,3,6
Mid-span / Pin 4578	Orange	The PoE voltage is detected on pair 4,5,7,8

Diagram:



3.4 ENVIRONMENTAL SPECIFICATIONS

Operating:

Temperature: -10°C ~60 degrees C

Relative Humidity: 5% ~ 95% (non-condensing)

Storage:

Temperature: -40°C ~75 degrees C

Relative Humidity: 5% ~ 95% (non-condensing)

3.5 ELECTRICAL SPECIFICATIONS

Power Requirements:

IEEE 802.3at/af compliant with voltage within 36~57V

3.6 REGULATORY COMPLIANCE

EMI:

EN 55022 CLASS B: 2010

EMS:

EN 55024: 2010

IEC 61000-4-2: 2008

IEC 61000-4-3: 2006 + A1: 2007 + A2: 20108

IEC 61000-4-4: 2012

IEC 61000-4-5: 2005;

IEC 61000-4-6: 2008

IEC 61000-4-8: 2009

IEC 61000-4-11: 2004

3.7 REALIABILITY

MTBF > 50,000Hrs

3.8 BASIC PACKAGING

☑ **The POE-TESTER** x1

3.9 PACKING DIMENSIONS

Dimensions: 105 x 136 x 23mm

Weight:

50 pcs in one carton

APPENDIX:

- Package design