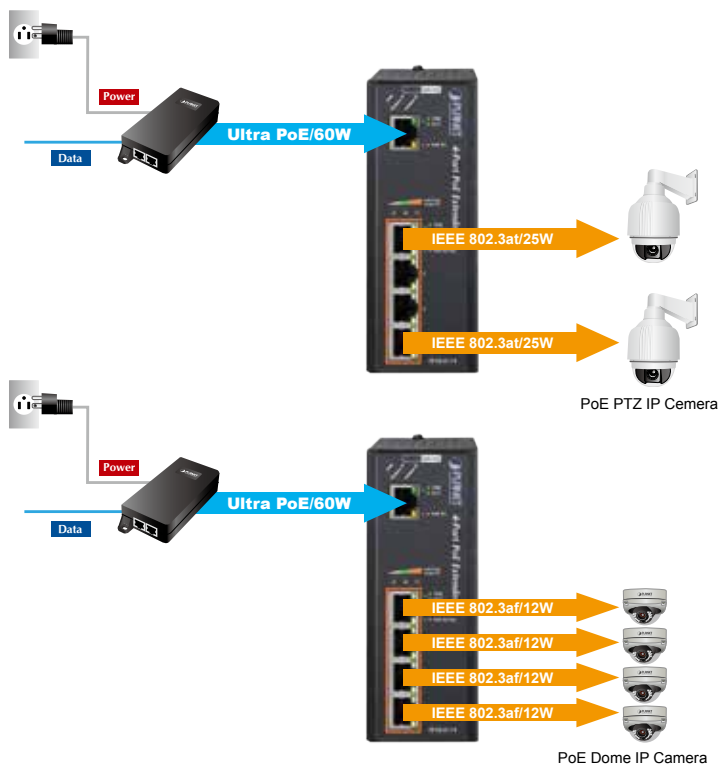


1-Port Ultra PoE to 4-Port 802.3af/at Gigabit PoE Extender



PoE Solution for Long-reach Distance

PLANET IPOE-E174 is an industrial 1-Port Ultra PoE to 4-Port 802.3af/at Gigabit PoE Extender designed especially for point to multipoint PoE application. The IPOE-E174 can obtain a maximum of 60-watt PoE power from ultra PoE input port and supplies a maximum of 50-watt PoE power budget for 4 PoE output ports, extending both the reach of **Gigabit Ethernet Data** and **IEEE 802.3at / 802.3af Power over Ethernet** over the standard 100m (328 ft.) CAT. 5/5e/6 UTP cable to 200m up to 4 powered devices at the same time. The IPOE-E174 provides a simple solution for adding PoE ports without running more cabling and achieves more flexible network applications without requiring an external power adapter.



Physical Port

- 5-port 10/100/1000BASE-T Gigabit RJ45 interface
 - 1-port data + power input
 - 4-port data + power output

Power over Ethernet

- 1-port data + power input
 - Complies with ultra Power over Ethernet end-span and mid-span PD
 - Complies with IEEE 802.3at High Power over Ethernet end-span / mid-span PD
 - Supports PoE input power up to 60 watts
- 4-port data + power output
 - Complies with IEEE 802.3af / IEEE 802.3at Power over Ethernet / end-span PSE
 - Up to 4 IEEE 802.3af / 802.3at devices powered
 - Supports PoE power up to 30.8 watts for each PoE port
 - Auto detects powered device (PD)
- Extends the range of PoE to an additional 100 meters (328ft.)
- Forwards both Ethernet data and PoE power to remote device

Layer 2 Features

- Hardware based 10/100Mbps, half / full duplex and 1000Mbps full duplex mode, flow control, auto-negotiation and auto MDI/MDI-X
- Features Store-and-Forward mode with wire-speed filtering and forwarding rates
- IEEE 802.3x flow control for full duplex operation and back pressure for half duplex operation
- Integrates address look-up engine, supporting 8K absolute MAC addresses
- 9K jumbo frame support in 1000Mbps duplex mode
- Automatic address learning and address aging
- Supports CSMA/CD protocol

Environmentally Hardened Design

With industrial-level IP30 metal case, the IPOE-E174 provides a high level of immunity against electromagnetic interference and heavy electrical surges which are usually found on plant floors or in curb-side traffic control cabinets. Being able to operate under the temperature range from **-40 to 75 degrees C**, the IPOE-E174 can be placed in almost any difficult environment.



Intelligent LED Indicator for Real-time PoE Usage

The IPOE-E174 helps users to monitor the current status of **PoE power usage** easily by its advanced LED indication. Called "PoE Power Usage" shown in percentage, the front panel of the IPOE-E174 has three LEDs indicating **25**, **50** and **75** percent of PoE power usage. With these LED indications, you can monitor the PoE power status of the IPOE-E174 efficiently.



Plug and Play, Easy Cabling Installation

The IPOE-E174 is quite easy to be installed by simple plug and play. It is used between a Power Source Equipment (PSE) and the Powered Device (PD). The IPOE-E174 injects power to the PD without affecting the data transmission performance. The IPOE-E174 offers a cost-effective and quick solution to doubling the standard range of PoE from 100 to 200 meters. The IPOE-E174 is designed in a compact mini box containing 5 RJ45 ports, of which the 1 "**PoE IN**" port functions as **PoE (Data and Power) input** and the 4 "**PoE OUT**" ports on the other side functions as **PoE (Data and Power) output**. The "**PoE OUT**" port is also the power injector to transmit DC voltage over the Cat. 5/5e/6 cable and transfer data and power simultaneously between the PSE and PD.

Industrial Case / Installation

- IP30 metal case
- DIN rail and wall-mount design
- Supports EFT protection for 6000V DC power, and 6000V DC Ethernet ESD protection
- -40 to 75 degrees C operating temperature
- No external power cable required for installation
- Plug and Play installation
- LED indicators for each port in use and PoE power usage (25%, 50% and 75%)

Standards Compliance

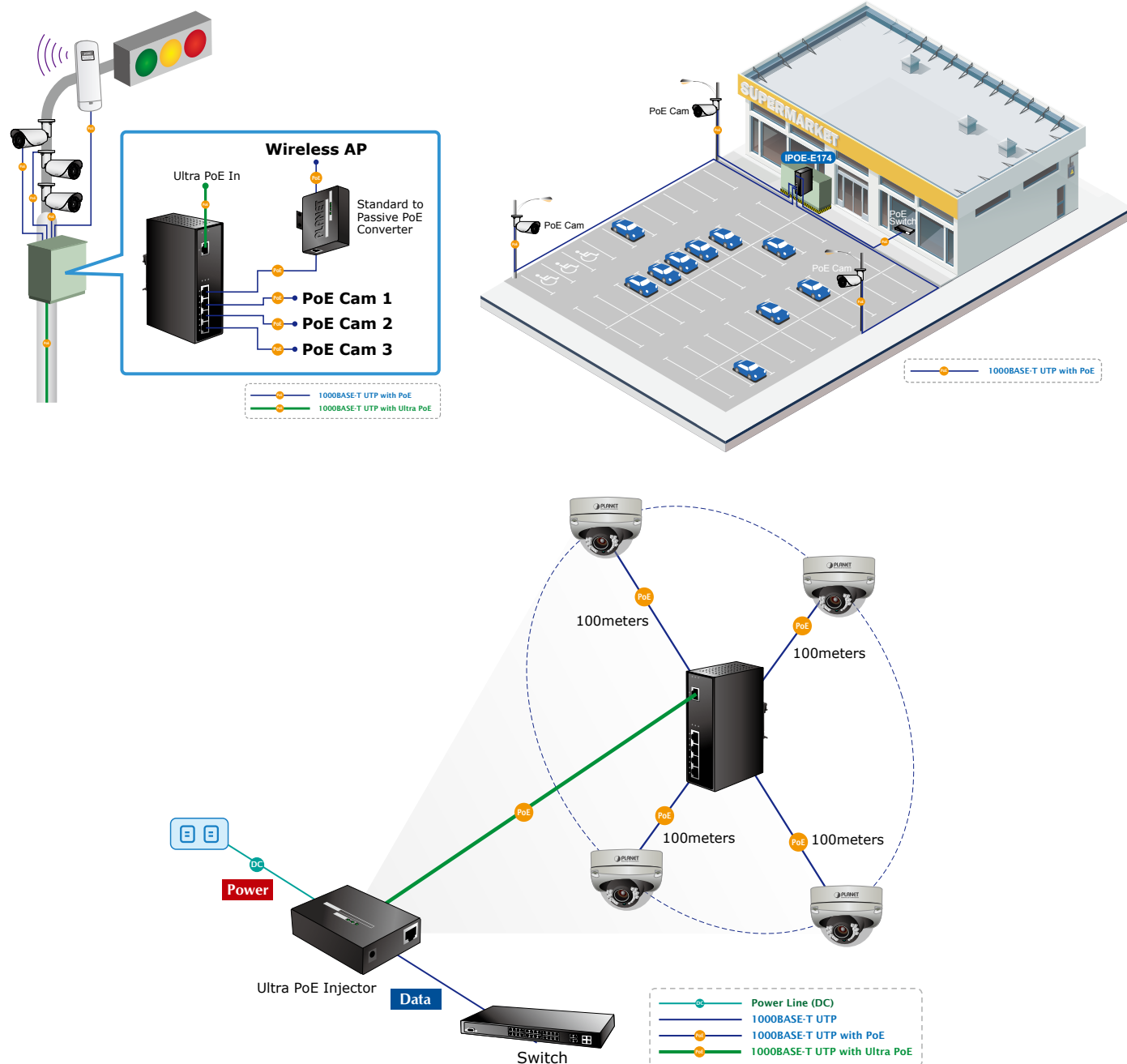
- IEEE 802.3 10BASE-T
- IEEE 802.3u 100BASE-TX
- IEEE 802.3ab 1000BASE-T
- IEEE 802.3x Flow Control
- IEEE 802.3at High Power over Ethernet
- IEEE 802.3af Power over Ethernet
- FCC Part 15 Class A, CE

Applications

One Power Sourcing for Multi Powered Devices Solution

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, PLANET IPOE-E174 is a useful accessory if the user has most of their network already set up and they wish to expand network communications and overcome cable distance limitations offering connections to devices in locations where traditional networking does not allow.

The IPOE-E174 industrial 1-Port Ultra PoE to 4-Port 802.3af/at Gigabit PoE Extender requires very little installation time and does not require any additional setup or programming, by using standard RJ45 cable from power sourcing device, such as ultra PoE injector supplying ultra PoE power to the IPOE-E174 and converting power for 4 powered devices that are IEEE 802.3af/at PoE standard compliant, meaning any additional power adapter for IP cameras and wireless access points is not necessary.



Specifications

Product	IPOE-E174
Hardware Specifications	
Network Connector	PoE In Port 1 x 10/100/1000BASE-T Ethernet with ultra PoE "Data + DC" in, auto MDI/MDI-X, auto-negotiation RJ45 connector PoE Out Port 4 x 10/100/1000BASE-T Ethernet with IEEE 802.3af/at PoE "Data + DC" out, auto MDI/MDI-X, auto-negotiation RJ45 connector
Switch Architecture	Store-and-Forward switch architecture
MAC Address Table	8K MAC address table with auto learning function
Data Buffer	1Mbit
Switch Fabric	10Gbps
Switch Throughput	7.44Mpps @ 64Bytes
Flow Control	IEEE 802.3x pause frame for full duplex Back pressure for half duplex
Jumbo Frame	9Kbytes
ESD Protection	6KV DC
EFT Protection	6KV DC
Enclosure	IP30 aluminum metal case
Installation	DIN rail kit and wall-mount ear
LED Display	System: PWR (Green) Power Input: Midspan in (Green) Endspan in (Green) PoE Power Usage (%): 25 (Green) 50 (Green) 75 (Green) PoE Input Port: LNK/ACT (Green) PoE in (Orange) Per PoE Output Port: LNK/ACT (Green) PoE-in-Use (Orange)
Cable	Twisted-pair cable : 10BASE-T: 2-pair UTP Cat. 3, 4, 5 up to 100 meters 100BASE-TX: 2-pair UTP Cat. 5, 5e up to 100 meters 1000BASE-T: 4-pair UTP Cat. 5e, 6 up to 100 meters
Dimensions (W x D x H)	56 X 87.8 X 135 mm
Weight	715g
Power Consumption	60 watts / 204.6BTU (Full loading with PoE function)
Power over Ethernet	
PoE Standard	PoE In Port IEEE 802.3at High Power over Ethernet end-span / mid-span class 4 PD Per PoE Out Port IEEE 802.3at High Power over Ethernet end-span PSE IEEE 802.3af Power over Ethernet end-span PSE
PoE Power	PoE In Port 50~57V DC, max. 60 watts Per PoE Out Port 44~55V DC, max. 30.8 watts
Power Pin Assignment	PoE In Port 1/2(+), 3/6(-); 4/5(+), 7/8(-) Per PoE Out Port 1/2(+), 3/6(-)
PoE Power Budget	50 watts (max.) @ Ultra PoE input 20 watts (max.) @ IEEE 802.3at PoE+ input No support @ IEEE 802.3af PoE input

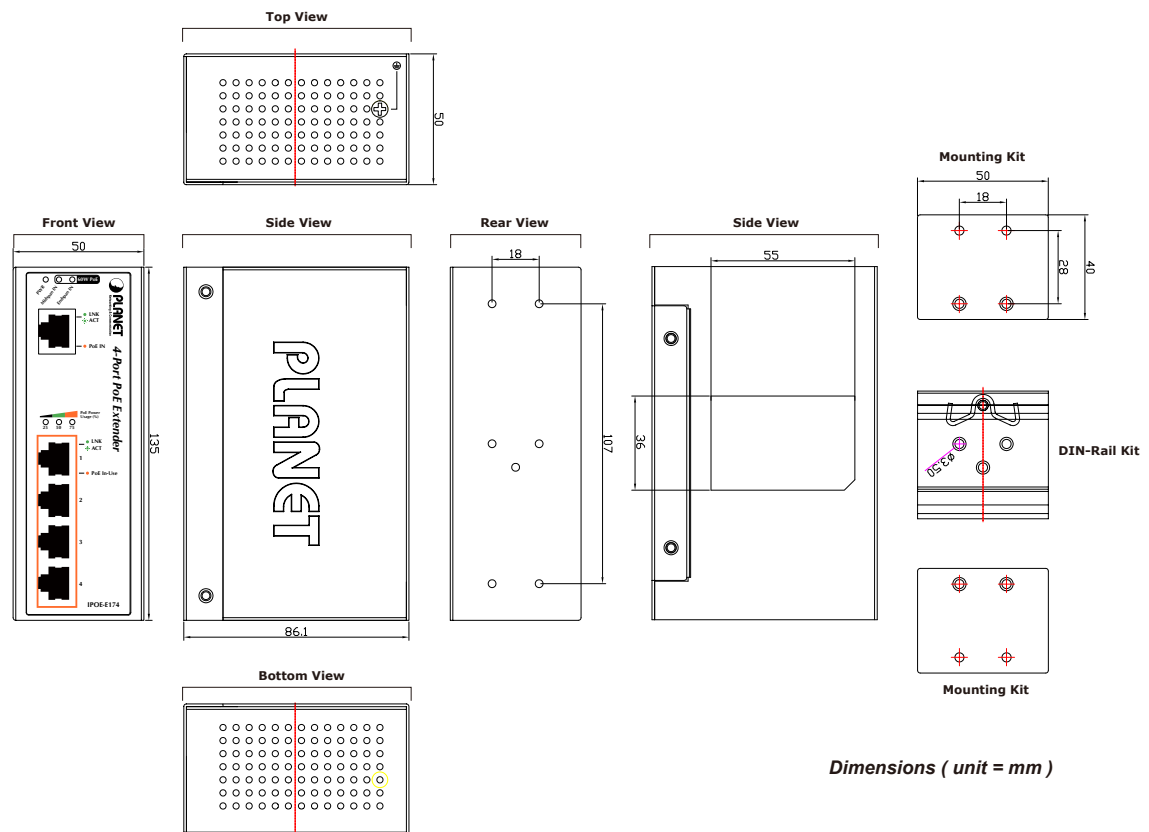
Standards Conformance

Regulation Compliance	FCC Part 15 Class A, CE
Stability Testing	IEC 60068-2-32 (Free fall) IEC 60068-2-27 (Shock) IEC 60068-2-6 (Vibration)
Standards Compliance	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3ab Gigabit Ethernet IEEE 802.3x Flow Control IEEE 802.3af Power over Ethernet IEEE 802.3at High Power over Ethernet

Environment

Operating	Temperature: -40 ~ 75 degrees C Relative Humidity: 5 ~ 95% (non-condensing)
Storage	Temperature: -40 ~ 85 degrees C Relative Humidity: 5 ~ 95% (non-condensing)

Ordering Information



Ordering Information

IPOE-E174	1-Port Ultra PoE to 4-Port 802.3af/at Gigabit PoE Extender
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Related Products

POE-171	Single-Port 10/100/1000Mbps Ultra PoE Injector (60 watts/Metal)
POE-173	Single-Port 10/100/1000Mbps Ultra PoE Injector (60 watts/Plastic)
POE-E201	IEEE 802.3at Power over Gigabit Ethernet Extender
POE-E101	IEEE 802.3af Power over Ethernet Extender

PLANET Technology Corporation

11F., No.96, Minquan Rd., Xindian Dist., New Taipei City
231, Taiwan (R.O.C.)
Tel: 886-2-2219-9518
Email: sales@planet.com.tw

Fax: 886-2-2219-9528
www.planet.com.tw



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IPOE-E174