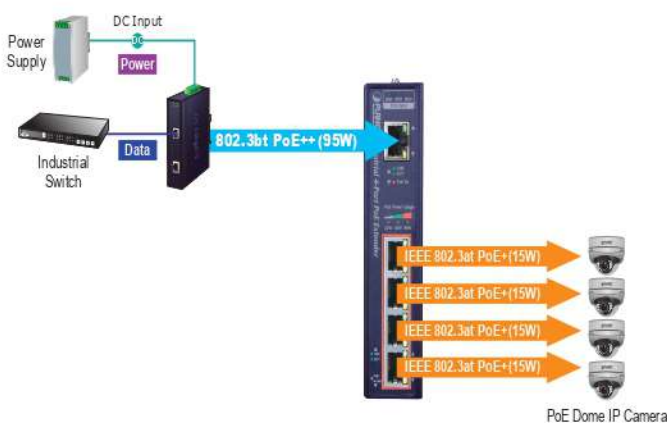
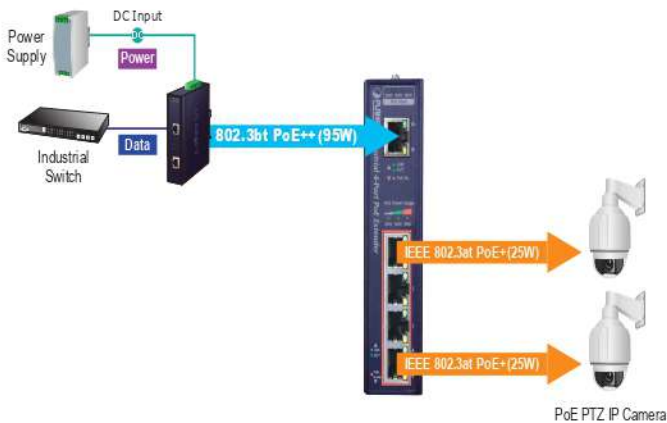


# Industrial 1-Port 802.3bt PoE++ to 4-Port 802.3af/at Gigabit PoE Extender



## PoE Solution for Long-reach Distance

PLANET IPOE-E174 is an industrial 1-Port 802.3bt PoE++ to 4-Port 802.3af/at Gigabit PoE Extender designed especially for the point to multipoint PoE application. The IPOE-E174 can obtain a maximum of 95-watt PoE power from 802.3bt PoE++ input port and supplies a maximum of 75-watt PoE power budget for 4 PoE output ports, extending both the reach of **Gigabit Ethernet Data** and **IEEE 802.3at Power over Ethernet** over the standard 100m (328 ft.) Cat. 5/5e/6 UTP cable to 200m where up to 4 powered devices (PDs) can be powered 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

- Five 10/100/1000BASE-T Gigabit RJ45 interfaces
  - 1-port **data + power input**
  - 4-port **data + power output**

## Power over Ethernet

- 1-port data + power input
  - Complies with 802.3bt Power over Ethernet Plus Plus end-span and mid-span PD
  - Complies with IEEE 802.3at Power over Ethernet Plus end-span/mid-span PD
  - Supports PoE input power up to 95 watts
- 4-port data + power output
  - Complies with IEEE 802.3af/at PoE/end-span PSE
  - Up to 4 IEEE 802.3af/at devices powered
  - Supports PoE power up to 30 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

- Features Store-and-Forward mode with wire-speed filtering and forwarding rates
- Integrates address look-up engine, supporting 2K absolute MAC addresses
- 9K jumbo frame support in 1000Mbps duplex mode
- Automatic address learning and address aging

## Industrial Case and Installation

- IP30 metal case
- DIN-rail and wall-mount designs
- Supports 6000V DC Ethernet ESD protection
- -40 to 75 degrees C operating temperature
- No external power cable required for installation
- **Plug and Play** installation

#### Environmentally-hardened Design

With industrial-grade 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 **20, 40 and 60** watts 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

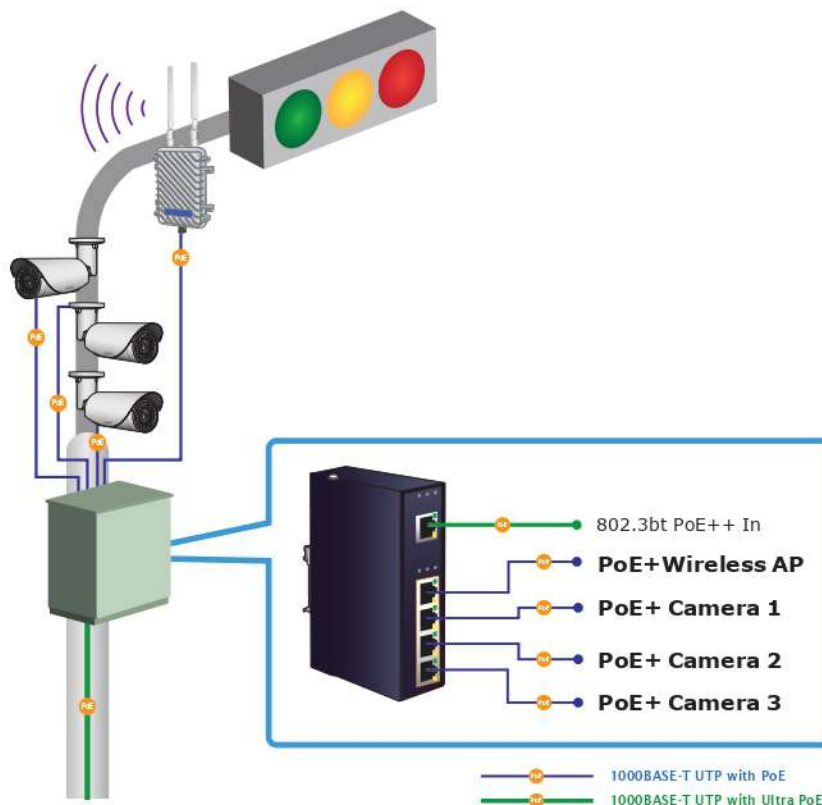
The IPOE-E174 can be easily installed by way of Plug and Play. It is used between a power source equipment (PSE) and the PD. The IPOE-E174 injects power to the PD without affecting the data transmission performance. The IPOE-E174 offers a cost-effective and quick solution to doubling the standard range of PoE from 100 to 200 meters. The IPOE-E174 is designed in a compact box containing 5 RJ45 ports, of which 1 "**PoE IN**" port functions as **PoE (Data and Power) input** and 4 "**PoE OUT**" ports on the other side functions as **PoE (Data and Power) output**. The "**PoE OUT**" port is also the power injector where DC voltage is transmitted over Cat. 5/5e/6 cable, and data and power are simultaneously transferred between the PSE and PD.



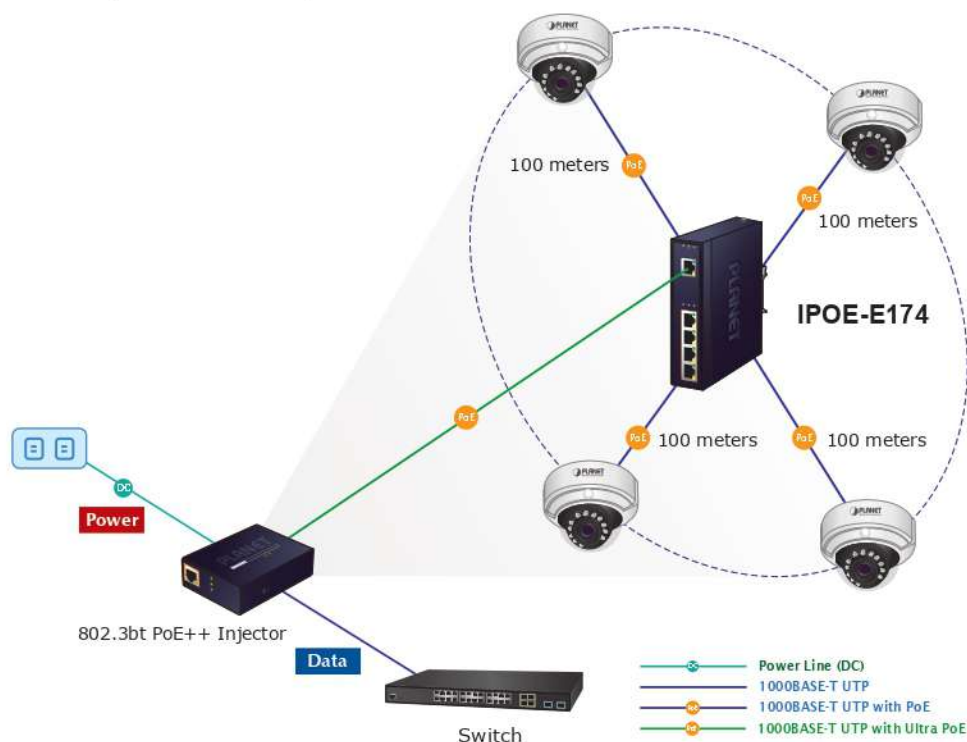
## Applications

### One Power Source for Multi Powered Devices

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 where IP cameras are installed in a remote location, PLANET IPOE-E174 is very useful for expanding the network already set up without worrying about the cabling distance limitation. In contrast, the conventional networking does not have the flexibility of network expansion.



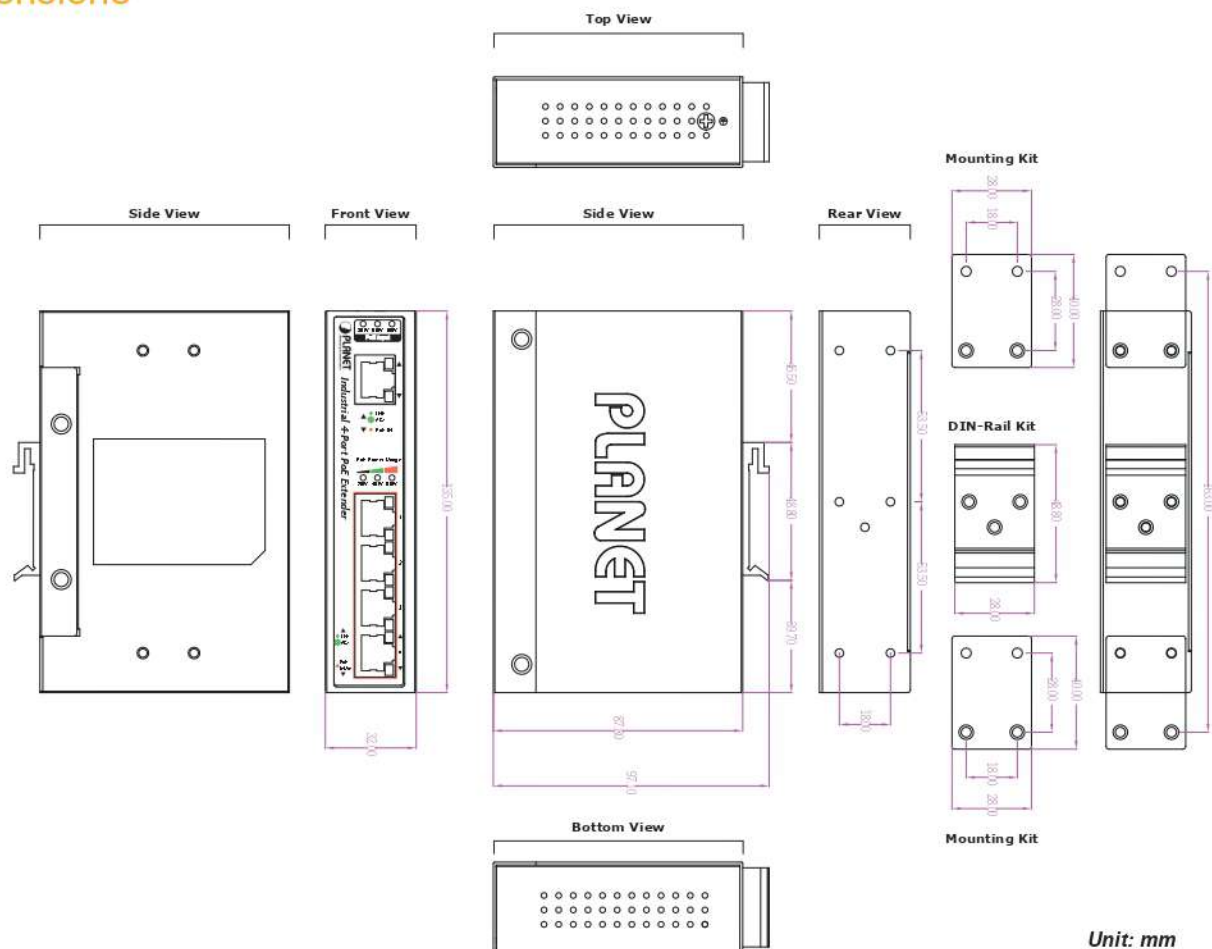
The IPOE-E174 industrial 1-Port 802.3bt PoE++ to 4-Port 802.3af/at Gigabit PoE Extender requires very little installation time and does not require any additional setup or programming by using standard RJ45 cable from power sourcing device, such as 802.3bt PoE++ injector supplying 802.3bt PoE++ power, 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.



## Product Specifications

Model	IPOE-E174
<b>Hardware Specifications</b>	
Network Connector	<b>PoE In Port</b> <ul style="list-style-type: none"> <li>- 1 x 10/100/1000BASE-T Ethernet with 802.3bt PoE++ "Data + DC" in</li> <li>- Auto MDI/MDI-X, auto-negotiation RJ45 connector</li> </ul> <b>PoE Out Port</b> <ul style="list-style-type: none"> <li>- 4 x 10/100/1000BASE-T Ethernet with IEEE 802.3af/at PoE "Data + DC" out</li> <li>- Auto MDI/MDI-X, auto-negotiation RJ45 connector</li> </ul>
Switch Architecture	Store-and-Forward switch architecture
MAC Address Table	2K MAC address table with auto learning function
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	Air 8KV DC Contact 6KV DC
Surge Protection	6KV
Enclosure	IP30 metal case
Installation	DIN-rail kit and wall-mount ear
Dimensions (W x D x H)	32 x 87.8 x 135 mm
Weight	447g
Power Consumption	9.1 watts/31BTU (Power On) 95 watts/324 BTU (Full loading with PoE function)
<b>Power over Ethernet</b>	
PoE Standard	<b>PoE in Port</b> <ul style="list-style-type: none"> <li>- IEEE 802.3bt PoE++ Type 4 standard PD</li> <li>- PoH (Power over HDBASE-T)</li> <li>- IEEE 802.3at PoE+ end-span/mid-span PD</li> </ul> <b>Per PoE out Port</b> IEEE 802.3at Power over Ethernet Plus end-span PSE
PoE Power	<b>PoE in Port</b> 50~57V DC, max. 95 watts <b>Per PoE out Port</b> 44~55V DC, max. 30.8 watts
Power Pin Assignment	<b>PoE in Port</b> 1/2(-), 3/6(+), 4/5(+), 7/8(-) or 1/2(+), 3/6(-), 4/5(+), 7/8(-) <b>Per PoE out Port</b> 1/2(+), 3/6(-)
PoE Power Budget	75 watts (max.) @ 802.3bt PoE++ Type 4 input 60 watts (max.) @ 802.3bt PoE++ Type 3 input 75 watts (max.) @ PoH input 25 watts (max.) @ 802.3at PoE+ input
<b>Standards Conformance</b>	
Regulatory Compliance	FCC Part 15 Class A, CE
Stability Testing	IEC60068-2-32 free fall IEC60068-2-27 shock IEC60068-2-6 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 Power over Ethernet Plus IEEE 802.3bt Power over Ethernet Plus Plus IEEE 802.3az Energy Efficient Ethernet(EEE)
<b>Environment</b>	
Operating Temperature	Temperature: -40 ~ 75 degrees C Relative Humidity: 5 ~ 95% (non-condensing)
Storage Temperature	Temperature: -40 ~ 85 degrees C Relative Humidity: 5 ~ 95% (non-condensing)

## Dimensions



## Ordering Information

IPOE-E174	Industrial 1-Port 802.3bt PoE++ to 4-Port 802.3af/at Gigabit PoE Extender
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## Related Products

IGS-6329-8UP2S2X	Industrial L3 8-Port 10/100/1000T 802.3bt PoE + 2-Port 1G/2.5G SFP + 2-Port 10G SFP+ Managed Ethernet Switch
IGS-6329-8UP2S4X	Industrial L3 8-Port 10/100/1000T 802.3bt PoE + 2-Port 1G/2.5G SFP + 4-Port 10G SFP+ Managed Ethernet Switch
IGS-6325-8UP2S2X	Industrial L3 8-Port 10/100/1000T 802.3bt PoE + 2-Port 100/1000X SFP + 2-Port 10G SFP+ Managed Ethernet Switch
IGS-6325-8UP2S	Industrial L3 8-Port 10/100/1000T 802.3bt PoE + 2-Port 100/1000X SFP + Managed Ethernet Switch
IGS-5225-4UP1T2S	Industrial L2+ 4-Port 10/100/1000T 802.3bt PoE + 1-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Switch
IPOE-171-95W	Industrial Single-Port 10/100/1000Mbps 802.3bt PoE++ Injector (95 Watts, -40~75 degrees C, 12~48V DC)
IPOE-171-60W	Industrial Single-Port 10/100/1000Mbps 802.3bt PoE++ Injector (60 Watts, -40~75 degrees C)
IGUP-1205AT	Industrial 2-Port 100/1000X SFP to 1-Port 10/100/1000T 802.3bt PoE++ Media Converter
IGUP-2205AT	Industrial 2-Port 100/1000X SFP to 2-Port 10/100/1000T 802.3bt PoE++ Media Converter
IGUP-805AT	Industrial 1-Port 100/1000X SFP to 1-Port 10/100/1000T 802.3bt PoE++ Media Converter
IPOE-270 Series	Industrial 2-port Multi-Gigabit 802.3bt PoE++ Injector Hub
IPOE-470 Series	Industrial 4-port Gigabit 802.3bt PoE++ Injector Hub
UPOE-400	4-Port Multi-Gigabit 802.3bt PoE++ Injector Hub
UPOE-800G	8-Port Gigabit 802.3bt PoE++ Managed Injector Hub (400 watts)
UPOE-1600G	16-Port Gigabit 802.3bt PoE++ Managed Injector Hub (600 watts)
UPOE-2400G	24-Port Gigabit 802.3bt PoE++ Managed Injector Hub (800 watts)