

Industrial 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 (IEEE 802.3bt) 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 75-watt PoE power from ultra PoE (IEEE 802.3bt) input port and supplies a maximum of 60-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 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 ultra Power over Ethernet 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 75 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 design
- 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.



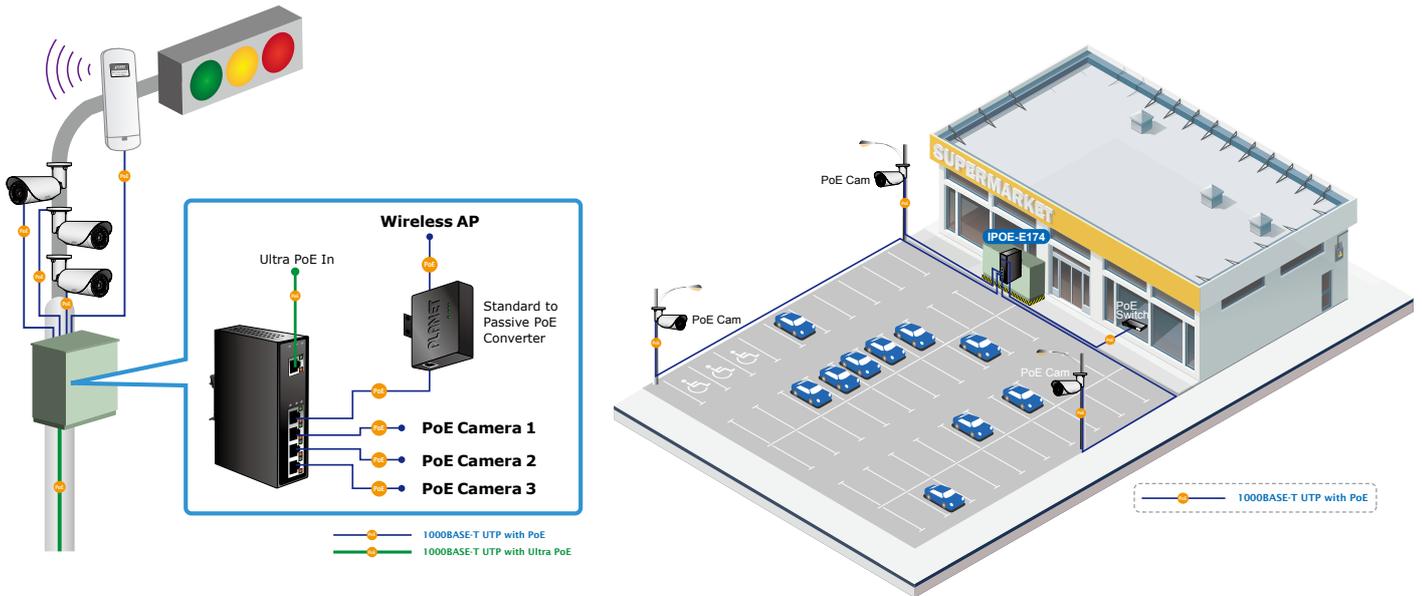
Plug and Play, Easy Cabling Installation

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.

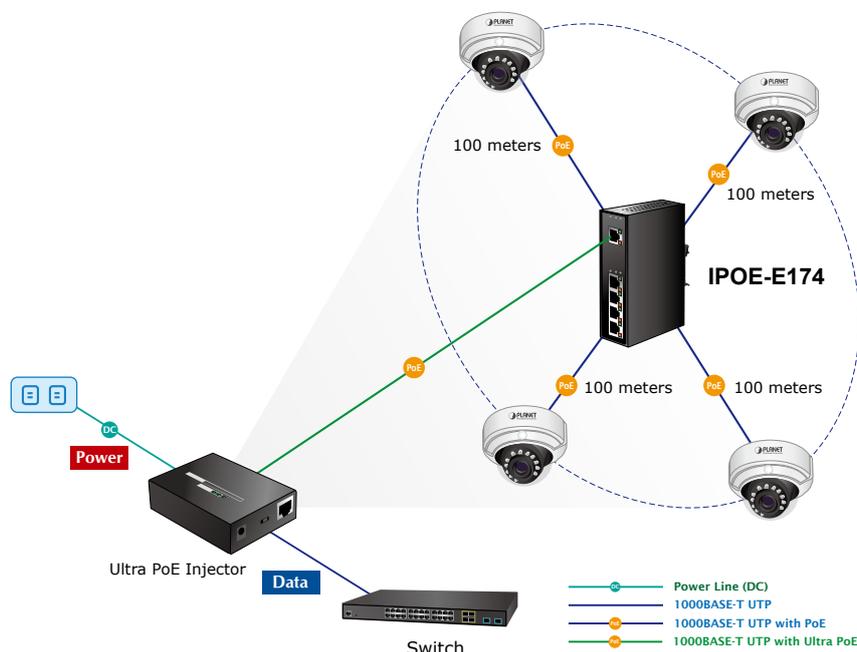
Applications

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.

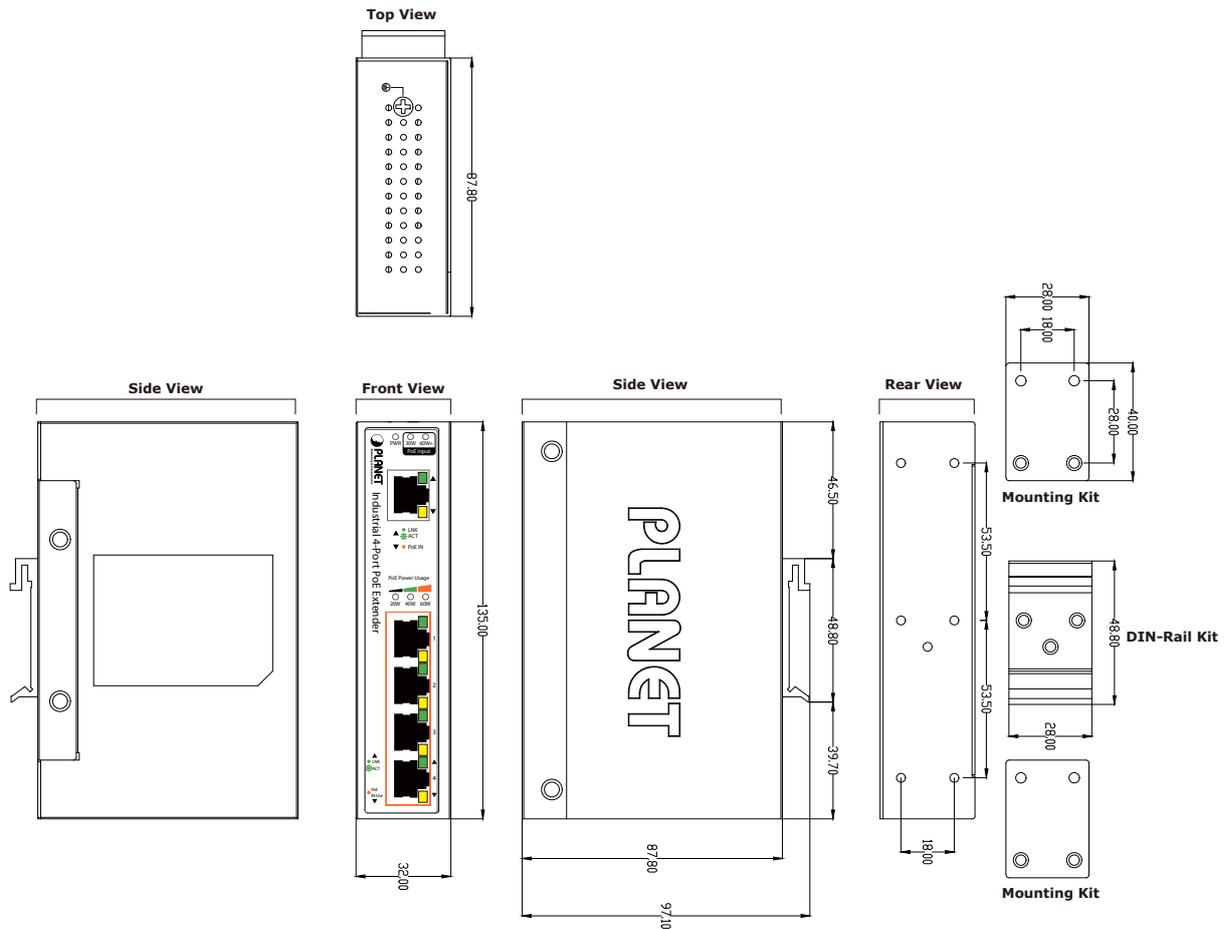


The IPOE-E174 industrial 1-Port Ultra PoE to 4-Port 802.3af/at Gigabit PoE Extender requires very little installation time and does not require any additional setup or programming by using standard RJ45 cable from power sourcing device, such as ultra PoE injector supplying ultra PoE power, to the IPOE-E174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

Model	IPOE-E174
Hardware Specifications	
Network Connector	<p>PoE In Port 1 x 10/100/1000BASE-T Ethernet with ultra PoE "Data + DC" in, auto MDI/MDI-X, auto-negotiation RJ45 connector</p> <p>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</p>
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	6KV DC
Enclosure	IP30 metal case
Installation	DIN rail kit and wall-mount ear
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)	32 x 85 x 135 mm
Weight	424g
Power Consumption	4.1 watts/13.9 BTU (Power On) 64.7 watts/220.6 BTU (Full PoE loading without data transfers) 66.1 watts/225.4 BTU (Full loading with PoE function)
LED Display	System: PWR (Green) Power Input: 30W, 2-pair 802.3at PoE in (Green) Power Input: 60W+, 4-pair 802.3bt, Ultra PoE or UPOE in (Green) HPoE Power usage: 20W, 40W and 60W PoE Input Port: PoE in (Orange) PoE Input Port: LNK/ACT (Green) Per PoE Output Port: LNK/ACT (Green) Per PoE Output Port: PoE-in-Use (Orange)
Power over Ethernet	
PoE Standard	<p>PoE in Port IEEE 802.3bt Higher Power over Ethernet end-span/mid-span PD class 4 PD</p> <p>Per PoE Out Port IEEE 802.3at Power over Ethernet Plus end-span PSE IEEE 802.3af Power over Ethernet end-span PSE</p>
PoE Power	<p>PoE in Port 50~57V DC, max. 72 watts</p> <p>Per PoE Out Port 44~55V DC, max. 30.8 watts</p>
Power Pin Assignment	<p>PoE in Port 1/2(-), 3/6(+); 4/5(+), 7/8(-)</p> <p>Per PoE out Port 1/2(+), 3/6(-)</p>
Compatible PoE Injectors	POE-171A-60 POE-171A-95 IPOE-171-60 IPOE-171-95
PoE Power Budget	64 watts (max.) @ PoE Type 3 input (Ultra PoE input) 30 watts (max.) @ PoE Type 2 input (802.3at input) 15 watts (max.) @ PoE Type 1 input (802.3af input)
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)



Dimensions (unit = mm)

Ordering Information

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

POE-172	Single-Port 10/100/1000Mbps Ultra PoE Injector (60 watts, internal PWR)
POE-E201	IEEE 802.3at Power over Gigabit Ethernet Extender
POE-E101	IEEE 802.3af Power over Ethernet Extender
GSW-1222VUP	8-Port 10/100/1000T Ultra PoE + 2-Port 10/100/1000T + 2-Port 1000X SFP Gigabit Ethernet Switch with LCD PoE Monitor (380W)
GS-4210-16UP4C	16-Port 10/100/1000T Ultra PoE + 4-Port Gigabit TP/SFP Combo Managed Switch
GS-4210-24UP4C	24-Port 10/100/1000T Ultra PoE + 4-Port Gigabit TP/SFP Combo Managed Switch
GS-5220-24UP4XV/GS-5220-24UP4XVR	L2+ 24-Port 10/100/1000T Ultra PoE + 4-Port 10G SFP+ Managed Switch with LCD touch screen
GS-5220-24UP4X/GS-5220-24UP4XR	L2+ 24-Port 10/100/1000T Ultra PoE + 4-Port 10G SFP+ Managed Switch
IGS-5225-4UP1T2S	Industrial L2+ 4-Port 10/100/1000T Ultra PoE + 1-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Switch
UPOE-800G	8-Port Gigabit 60W Ultra PoE Managed Injector Hub (400W)
UPOE-1600G	16-Port Gigabit 60W Ultra PoE Managed Injector Hub (600W)
UPOE-2400G	24-Port Gigabit 60W Ultra PoE Managed Injector Hub (800W)

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