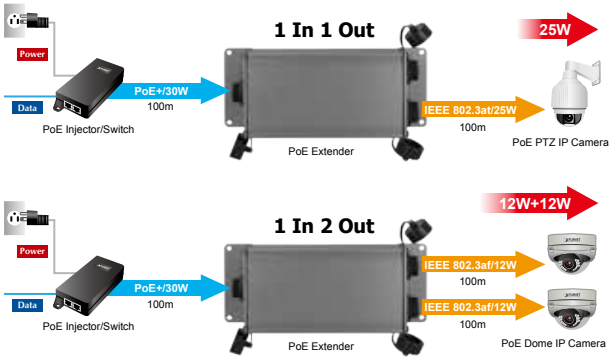
Industrial IP63 Rated 1-Port 802.3at PoE+ to 2-Port 802.3af PoE Extender

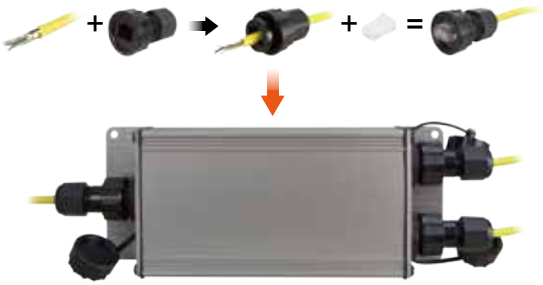
PoE Solution for Breaking RJ45 100m Limitation

PLANET IPOE-E202 is an industrial IP63-rated 1-port PoE+ to 2-port 802.3af/at Gigabit PoE Extender designed especially for point to multipoint PoE application. The IPOE-E202 can obtain a maximum of 30-watt PoE power from PoE+ input port and supplies a maximum of 25-watt PoE power budget for 2 PoE output ports, extending both the **Gigabit Ethernet Data** and **IEEE 802.3at/802.3af Power over Ethernet** over the UTP cable. The IPOE-E202 provides a simple solution for adding PoE ports without running more cabling and achieves more flexible network applications without requiring an external power adapter.



Weather-proof RJ45 Ethernet Connector and Shielded Plug

The IPOE-E202 is ideal for installing an extended range of outdoor PoE devices such as outdoor PoE wireless access points, outdoor PoE IP cameras, outdoor PoE IP intercoms and much more. The IPOE-E202 is equipped with 3-port 10/100/1000BASE-T auto-negotiation weather-proof RJ45 connectors and 3 shielded RJ45 plugs for direct attach applications. These shielded RJ45 plugs can make the general UTP cable weather-proof. When connected to the weather-proof RJ45 connector, it provides tight and strong connection, and ensures it comes with the industrial protection rating of IP63 capable of withstanding humidity, dirt, dust, shock, vibrations, heat and cold.



Physical Port

- **3 10/100/1000BASE-T** Gigabit RJ45 interfaces
  - 1-port **data + power input**
  - 2-port **data + power output**

Power over Ethernet

- 1-port data + power input
  - Complies with IEEE 802.3at Power over Ethernet Plus end-span/mid-span PD
  - Supports PoE input power up to 30.8 watts
- 2-port data + power output
  - Complies with IEEE 802.3af/802.3at Power over Ethernet/end-span PSE
  - Up to 2 IEEE 802.3af/802.3at devices powered
  - Supports PoE power up to 25 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

Industrial Case and Installation

- IP63-rated aluminum case
- Wall-mount design
- Waterproof and dustproof

Environmentally Hardened Design

With industrial-level IP63-rated aluminum case, the IPOE-E202 provides a high level of immunity against electromagnetic interference, and is able to protect itself from dust and water ingress and to operate under the temperature range from **-40 to 75 degrees C**. All these features ensure the highest level of reliability for mission-critical applications in any difficult environment.

- Supports EFT protection of 2000 VDC for power line
- Supports 2000 VDC Ethernet ESD protection
- -40 to 75 degrees C operating temperature
- No external power cable required for installation
- Plug and Play installation

Standard Compliance

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

Intelligent PoE Power Budget Alert

The IPOE-E202 helps users to monitor the current status of PoE power usage easily via its advanced LED indication, which is called “**Budget Alert**” on the front panel of the IPOE-E202. When the PoE output power is over 20 watts, this Budget Alert LED will light up.

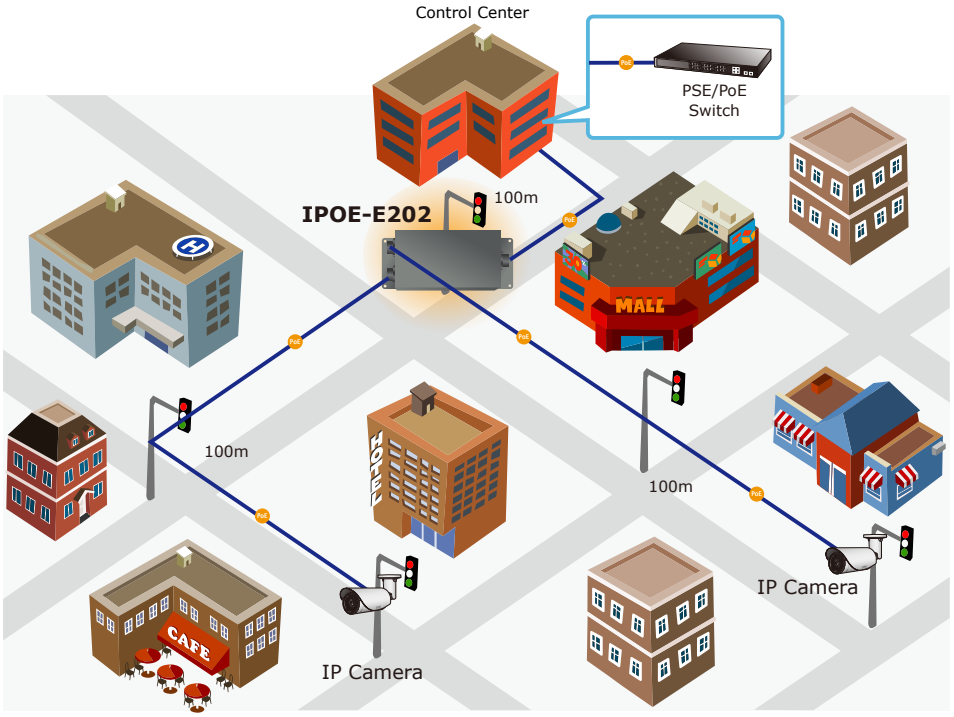
Plug and Play, and Easy Cabling Installation

The IPOE-E202 is quite easy to be installed by simple plug and play. It is used between a power source equipment (PSE) and a powered device (PD). The IPOE-E202 injects power to the PD without affecting the data transmission performance. The IPOE-E202 offers a cost-effective and quick solution to doubling the standard range of PoE from 100 to 200 meters. The IPOE-E202 is designed in a compact box containing three RJ45 ports, of which one "**PoE IN**" port functions as **PoE (Data and Power) input** and the other two "**PoE OUT**" ports on the other side function as **PoE (Data and Power) output**. The "**PoE OUT**" port is also the power injector that transmits DC voltage over the Cat5/5e/6 cable and transfers data and power simultaneously between the PSE and PD.

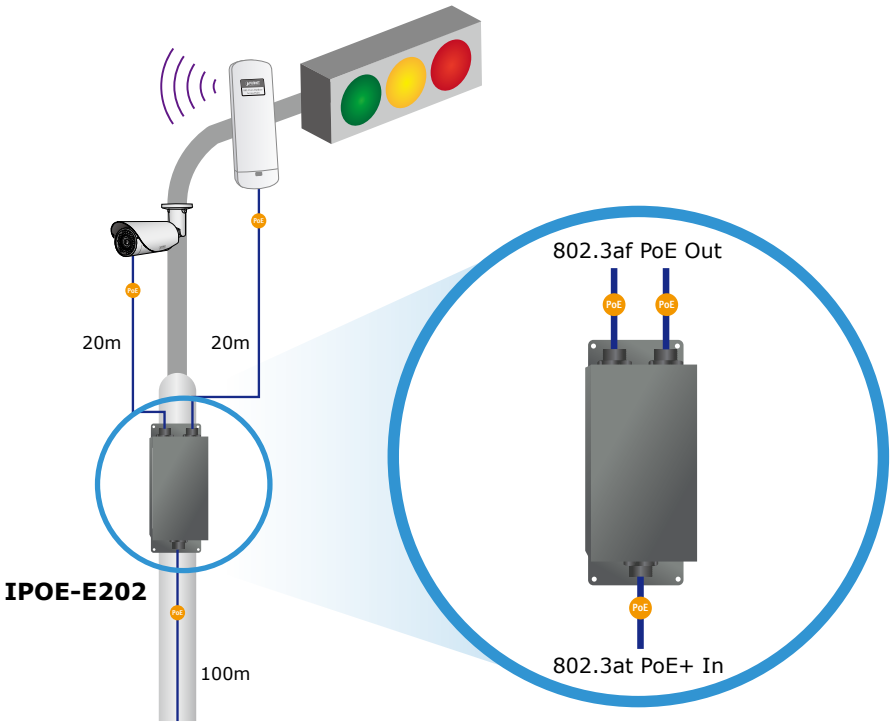
Applications

One Power Sourcing for Multi Powered Devices Solution

To achieve the benefits of IP surveillance and the long-distance IP camera distribution, PLANET IPOE-E202 is quite a useful accessory if users have most of their network already set up, and wish to expand network communications and overcome cable distance limitations offering connections to devices in locations where traditional networking does not allow.



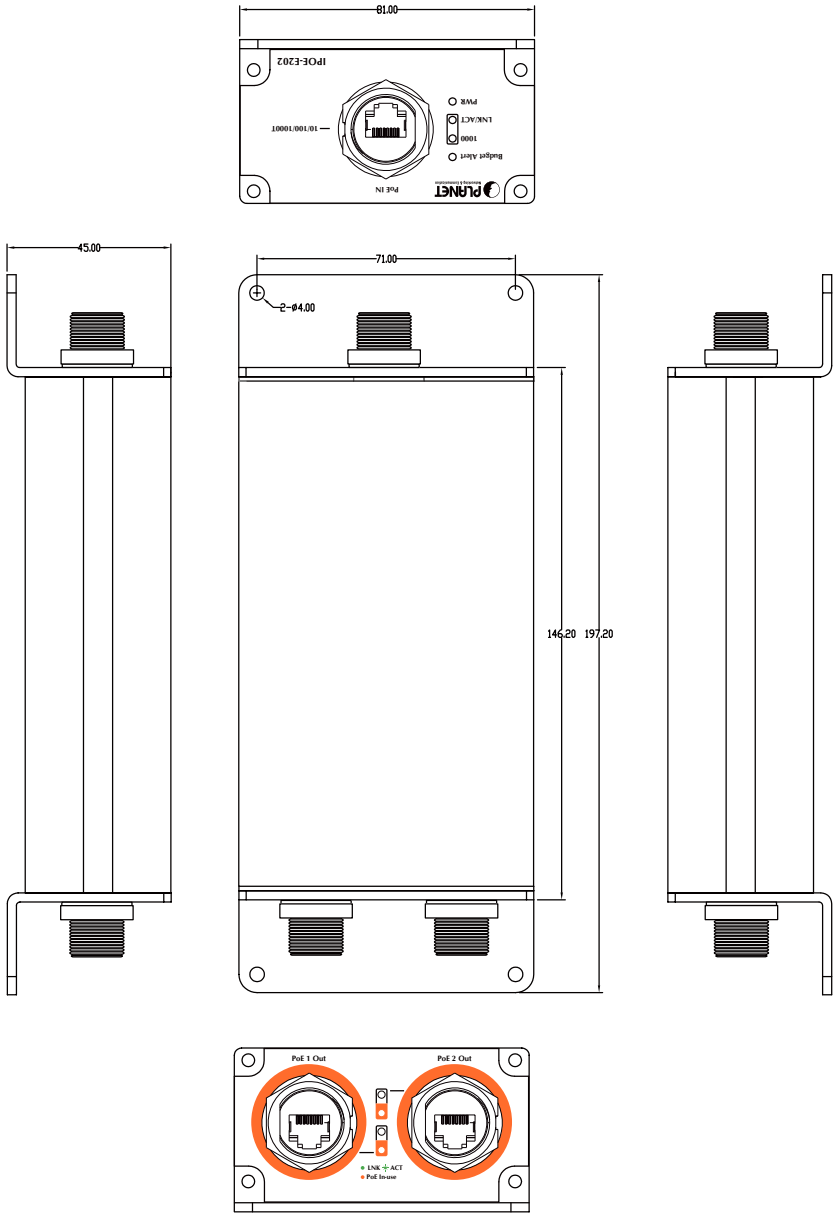
The IPOE-E202 industrial 1-port PoE+ to 2-port 802.3af/at Gigabit PoE Extender requires very little installation time and does not require any additional setup or programming by just using standard RJ45 cable from power sourcing device (PSE). The PoE+ injector port of the PSE supplies IEEE802.3at PoE+ power to the IPOE-E202 and then the IPOE-E202 converts power for 2 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-E202
Hardware Specifications	
Network Connector	**PoE In Port** 1 x 10/100/1000BASE-T Ethernet with 802.3at PoE+ “Data + Power” in, auto MDI/MDI-X, auto-negotiation RJ45 connector **PoE Out Port** 2 x 10/100/1000BASE-T Ethernet with IEEE 802.3af/at PoE “Data + Power” 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	6Gbps
Switch Throughput	4.46Mpps @ 64 bytes
Flow Control	IEEE 802.3x pause frame for full duplex Back pressure for half duplex
Jumbo Frame	9KB
ESD Protection	2KV DC
EFT Protection	2KV DC
Enclosure	IP63 aluminum case
Installation	Wall-mount kit
LED Display	System: PWR (green) Budget Alert (orange) PoE Input Port: LNK/ACT (orange) 1000 (green) Per PoE Output Port: LNK/ACT (green) PoE-in-Use (orange)
Cable	Twisted-pair cable : 10BASE-T: 2-pair UTP Cat3, 4, 5 up to 100 meters 100BASE-TX: 2-pair UTP Cat5, 5e up to 100 meters 1000BASE-T: 4-pair UTP Cat5e, 6 up to 100 meters
Dimensions (W x D x H)	199.6 x 81 x 40 mm
Weight	320g
Power Consumption	30 watts/102.3BTU (Full loading with PoE function)
Power over Ethernet	
PoE Standard	**PoE In Port** IEEE 802.3at Power over Ethernet Plus end-span/mid-span PD class 4 PD **Per PoE Out Port** IEEE 802.3at Power over Ethernet Plus end-span PSE IEEE 802.3af Power over Ethernet end-span PSE
PoE Power	**PoE In Port** 50~57V DC, max. 30.8 watts **Per PoE Out Port** 44~55V DC, max. 25 watts
Power Pin Assignment	**PoE In Port** 1/2 (+), 3/6 (-); 4/5 (+), 7/8 (-) **Per PoE Out Port** 1/2 (+), 3/6 (-)
Standards Conformance	
Regulatory 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 Power over Ethernet Plus
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)

Three View Diagram



Ordering Information

IPOE-E202	Industrial 1-Port 802.3at PoE+ to 2-Port 802.3af PoE Extender

Related Products

IGS-604HPT-RJ	Industrial IP67-rated 4-Port 10/100/1000T 802.3at PoE + 2-Port 10/100/1000T Managed Ethernet Switch (-40~75 degrees C)
IPOE-E174	1-Port Ultra PoE to 4-Port 802.3af/at Gigabit PoE Extender
POE-E201	IEEE 802.3at Power over Gigabit Ethernet Extender
POE-E101	IEEE 802.3af Power over Ethernet Extender

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