1-port 802.3at PoE+ to 2-port 802.3af/at Gigabit PoE Extender



PoE Solution for Breaking RJ45 100m Limitation

PLANET POE-E202 is a 1-port PoE+ to 2-port 802.3af/at Gigabit PoE Extender designed especially for point to multipoint PoE application. The POE-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 two PoE output ports, extending both the **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 up to two 200m powered devices at the same time.The POE-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.





Plug and Play Installation

The POE-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 POE-E202 injects power to the PD without affecting the data transmission performance. The POE-E202 offers a cost-effective and quick solution to doubling the standard range of PoE from 100 to 200 meters. The POE-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 function as **PoE 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.

Physical Port

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

Power over Ethernet

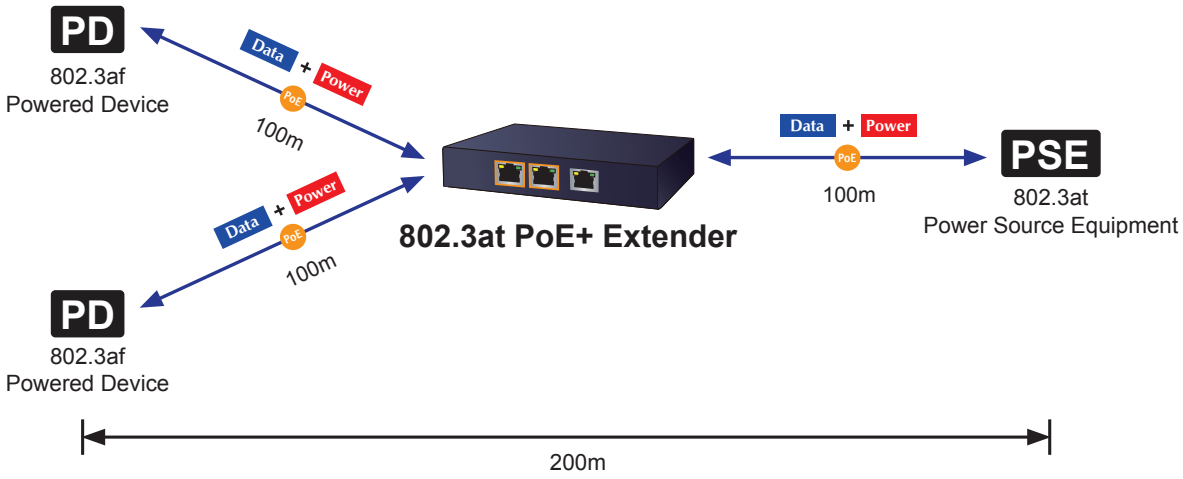
- 1-port data + power input
  - Complies with IEEE 802.3at Power over Ethernet Plus end-span/mid-span PD
  - Supports PoE input power up to 30.8 watts
- 2-port data + power output
  - Complies with IEEE 802.3af/IEEE 802.3at Power over Ethernet end-span PSE
  - Up to 2 IEEE 802.3af/802.3at devices powered
  - 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 10/100/1000Mbps auto-negotiation and auto MDI/MDI-X
- Integrates address look-up engine, supporting 2K absolute MAC addresses
- 10K iumbo packet support
- IEEE 802.1Q VLAN transparency
- 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
- Automatic address learning and address aging
- Supports CSMA/CD protocol

Case and Installation

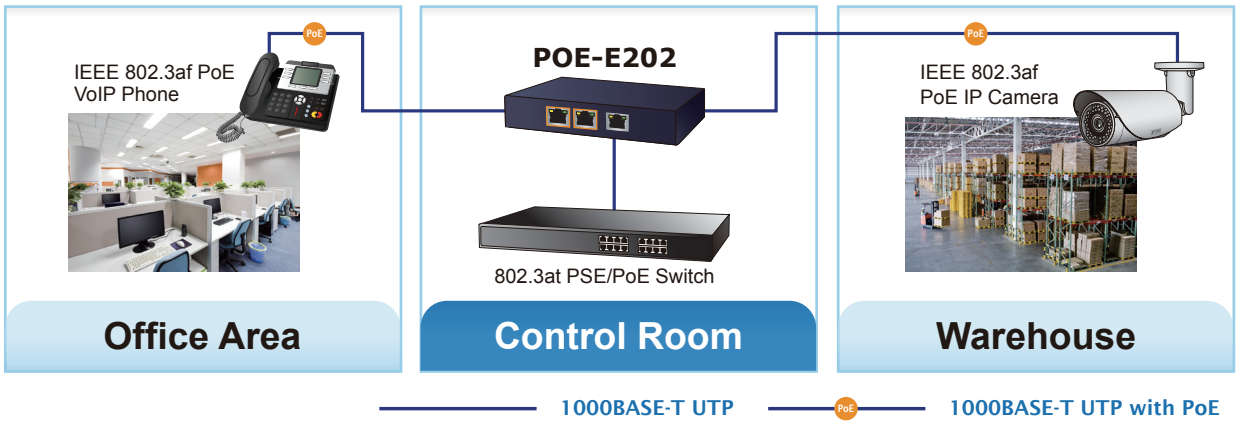
- No external power cable installation required
- Made of metal, desktop size design
- Wall-mountable, Plug-and-Play installation
- 0 ~ 50 degrees C operating temperature



Applications

One Power Sourcing for Multi Powered Devices Solution

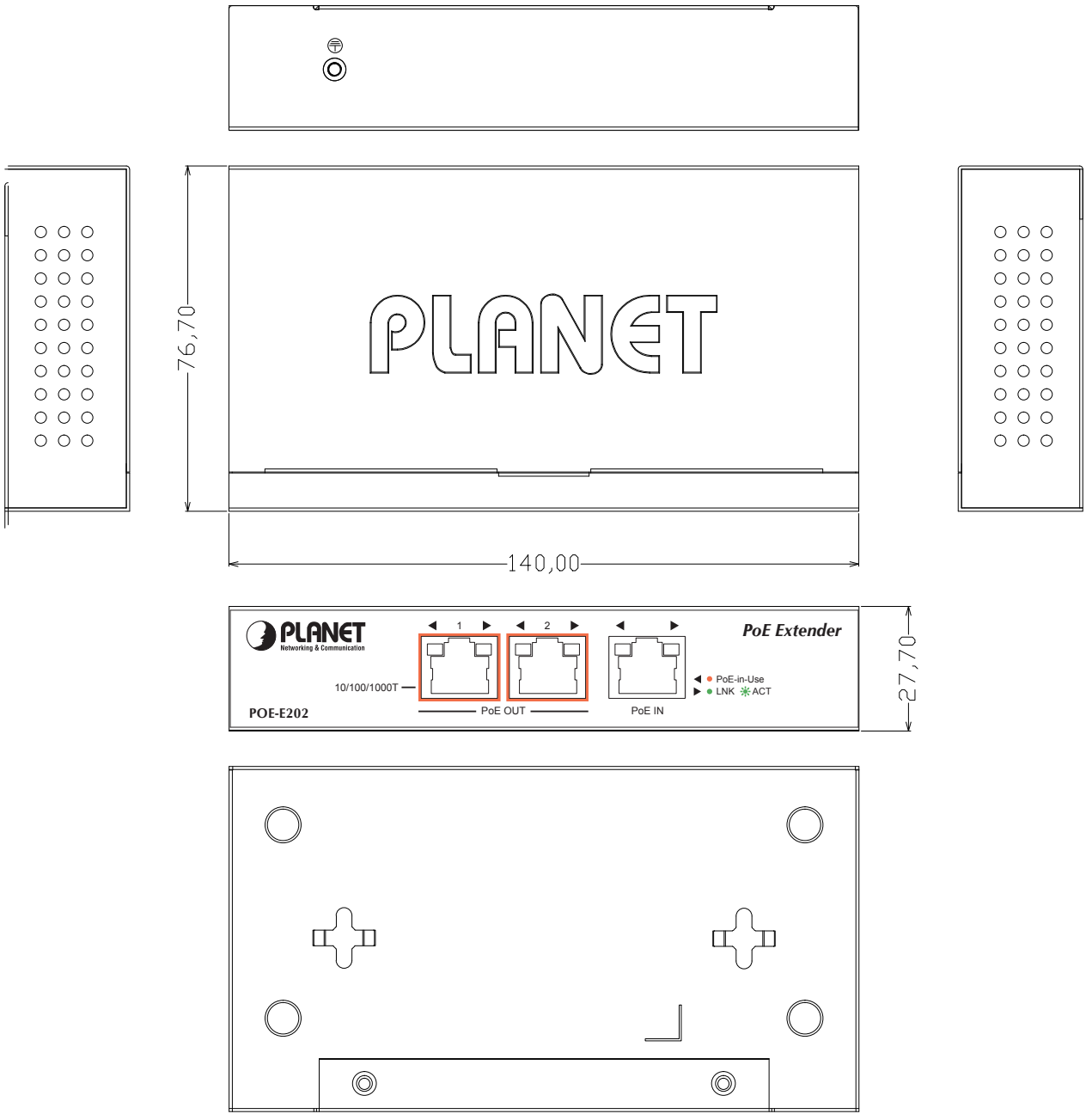
Is 100-meter cable long enough for a wide range of IP surveillance deployments? The answer is certainly not. To achieve the benefits of IP surveillance and the long-distance IP camera distribution, PLANET POE-E202 is quite a useful Gigabit PoE extender if users have most of their network already set up, and hope to expand network communications and overcome cable distance limitations offering connections to devices in locations where traditional networking does not allow.



Specifications

Model	POE-E202
Interfaces	
PoE IN	1 x 10/100/1000BASE-T Ethernet with IEEE 802.3at PoE **"Data + DC power"** in auto MDI/MDI-X, auto-negotiation RJ45 connector
PoE OUT	2 x 10/100/1000BASE-T Ethernet with IEEE 802.3at/802.3af PoE **"Data + DC power"** out auto MDI/MDI-X, auto-negotiation RJ45 connector
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 Supply Type	End-span (Type A)
PoE Power	**"PoE In" Port** 52~56V 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 (-)
Hardware Specifications	
Data Rate	10/100/1000Mbps
MAC Address Table	2K
Data Buffer	2Mbits
Switch Architecture	Store-and-Forward
Switch Fabric	6Gbps
Switch Throughput	4.46Mpps @ 64 bytes
Jumbo Frame	10KB
Flow Control	IEEE 802.3x pause frame for full duplex Back pressure for half duplex
LED Indicators	"PoE In" Port: PoE-in-Use x 1 (**amber**), LNK/ACT x 1 (**green**) "PoE Out" Port 1: PoE-in-Use x 1 (**amber**), LNK/ACT x 1 (**green**) "PoE Out" Port 2: PoE-in-Use x 1 (**amber**), LNK/ACT x 1 (**green**)
Protection	ESD (Ethernet): 2KV (TBD) Surge (EFT for power) : 2KV (TBD)
Enclosure	Metal
Installation	Wall mountable
Dimensions (W x D x H)	140 x 77 x 28 mm
Weight	258g
Power Requirements	IEEE 802.3at compliant with voltage within 52V-56V DC
Power Consumption	1.6 watts/5.5BTU (System on with PoE input) 2.2 watts/7.5BTU (Ethernet full loading without PoE function) 36 watts/122.8BTU (Full loading with PoE function)
Network Cable	10BASE-T: 4-pair UTP Cat. 5 up to 100m (328ft) 100BASE-TX: 4-pair UTP Cat. 5 up to 100m (328ft) 1000BASE-T: 4-pair UTP Cat. 5e, 6, up to 100m (328ft) EIA/TIA-568 100-ohm STP (100m, 328ft)
Standard Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Standard Compliance	IEEE 802.3 10BASE-T Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3x Flow Control
Environment	
Operating	Temperature: 0 ~ 50 degrees C Relative Humidity: 5 ~ 95% (non-condensing)
Storage	Temperature: -10 ~ 70 degrees C Relative Humidity: 5 ~ 95% (non-condensing)

Three View Diagram



Unit: mm

Ordering Information

POE-E202	1-port 802.3at PoE+ to 2-port 802.3af/at Gigabit PoE Extender

Related Products

POE-E201	IEEE 802.3at Power over Gigabit Ethernet Extender
POE-E304	1-Port 802.3bt PoE++ to 4-Port 802.3af/at Gigabit PoE Extender
IPOE-E174	Industrial 1-Port 802.3bt PoE++ to 4-Port 802.3af/at Gigabit PoE Extender
IPOE-E302	Industrial IP67 1-Port 802.3bt PoE++ to 2-Port 802.3at/bt PoE++ Extender

Power over Ethernet Out Capability



(A): Distance
(B): Distance
(C): Watts

With different distance and different PoE input source, it will inflect the PoE output capability. Please refer to the table below.

When PSE/PoE Switch output is 52V DC

A (Distance)	B (Distance)	C (Watts)
100M	20M	21.6
100M	60M	20.7
100M	100M	19.7

When PSE/PoE Switch output is 56V DC

A (Distance)	B (Distance)	C (Watts)
100M	20M	21.1
100M	60M	20.2
100M	100M	19.3

PLANET Technology Corporation

11F., No.96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C.)
Tel: 886-2-2219-9518 Fax: 886-2-2219-9528
Email: sales@planet.com.tw www.planet.com.tw

PLANET reserves the right to change specifications without prior notice. All brand names and trademarks are property of their respective owners. Copyright © 2022 PLANET Technology Corp. All rights reserved.