

# IEEE 802.3at High Power over Ethernet Injector (Mid-span)



### PoE with High Power, Security, Stability and Easy Installation Features

As the applications of Power over Ethernet have expanded to home users from the IT industry, PLANET has developed a new Single-Port PoE+ Injector which meets the requirements of both the IT industry and home users for high wattage output and easy installation, respectively.

The POE-164 is a wall-mountable, single-port 802.3at PoE+ injector with internal power supply in compact housing. Carrying both Ethernet data and power simultaneously, the POE-164 helps users to utilize just one Ethernet cable to easily install and deploy IP camera, wireless AP or VoIP phone networking in environments where power outlet is hard to find.

System Integrator /SMB	Home and SOHO Users
▶ IEEE 802.3at / 802.3af Power over Ethernet Plus Compliant	
▶ Reduced installation costs	
▶ 30-watt Power Output	▶ Compact size, internal power supply
▶ 10/100/1000Mbps Data Rate	▶ Plug and Play, easy installation
▶ Extends distance with PoE Extender	

It offers an affordable, safe and reliable power solution for cost-conscious business and home users deploying Power over Ethernet networks.

### 30-watt Power over Ethernet Capability

The PoE in-line power following the IEEE 802.3at/af Power over Ethernet Plus standard makes the POE-164 able to deliver Ethernet data and up to 30 watts of power to remote PoE compliant powered devices (PDs) over one Cat.5E/6 Ethernet cable. The POE-164 provides more flexibility in power requirement for all kinds of PDs at affordable installation costs. Designed especially for higher power required network equipment such as PTZ (Pan, Tilt & Zoom) speed-dome camera, high power outdoor AP can be powered and work normally just through a single UTP cable with PoE power injector, the POE-164.

### Interface

- 2-port RJ45 interfaces
  - 1-port Data + Power output
  - 1-port Data input
- 1 AC 100-240V input power socket

### Power over Ethernet

- 1-port High Power over Ethernet Mid-span PSE
- IEEE 802.3at Power over Ethernet Plus compliant
- Backward compatible with IEEE 802.3af Power over Ethernet
- Supports PoE Power up to 30 watts for PoE port
- Up to 1 IEEE 802.3at device powered
- Provides DC 53V power over RJ45 Ethernet cable to device with Ethernet port
- Auto-detection of PoE IEEE 802.3at/af equipment and devices that could be damaged by incorrect installation
- Remote power feeding up to 100m

### Hardware

- All-in-one design with internal power supply
- Compact-size plastic case
- LED indicators for Power LED and Active LED (PoE ready-in-use)

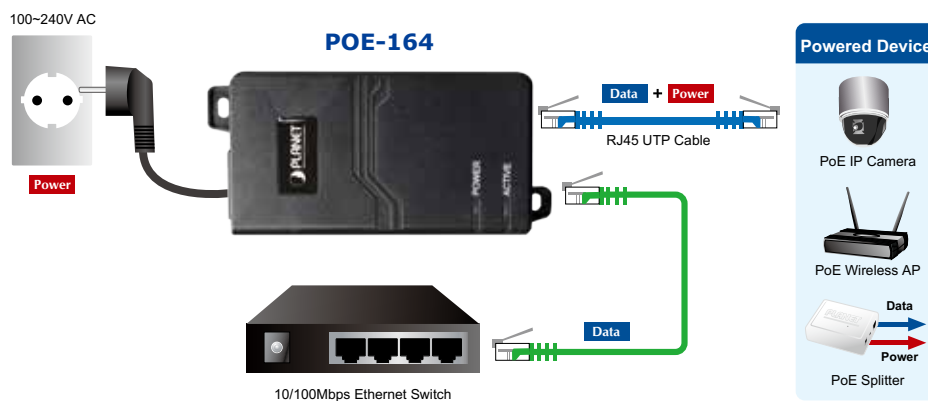
*All-in-One and Compact-size Design*

With concepts of "Easy to install", "Plug and Play" and "Simple troubleshooting" for business and home users, the POE-164 is an all-in-one, single-port PoE+ injector with internal power supply. In the compact-size housing, the POE-164 provides one 100-240V AC input socket on its front panel, two LEDs (System POWER and PoE ACTIVE ) on the top side and two RJ45 ports (POE port and LAN port) on the rear panel. Simply plug in the Ethernet cables and power cord, and the POE-164 is ready to provide high-speed network communication and high power PoE+ injector functions simultaneously with no need of software configuration.



*Quick and Easy Cabling Installation for PoE Network Deployment*

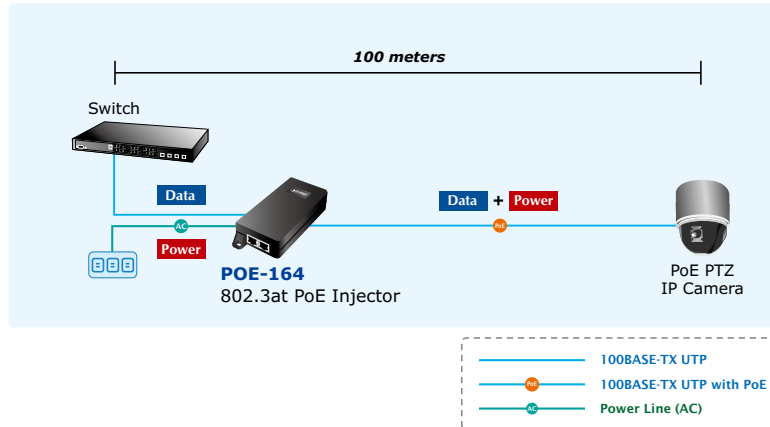
Complying with both 802.3af and 802.3at PoE+ standards, the POE-164 allows users to flexibly deploy standard and high powered devices to transfer data and power simultaneously through one Ethernet cable for up to 100 meters. The POE-164 frees the security IP camera and wireless AP deployment from restrictions of power outlet locations and the additional AC wiring. It thus reduces cables and eliminates the need for electrical outlets on the wall, ceiling or any unreachable place, and most of all, it reduces installation time.



## Applications

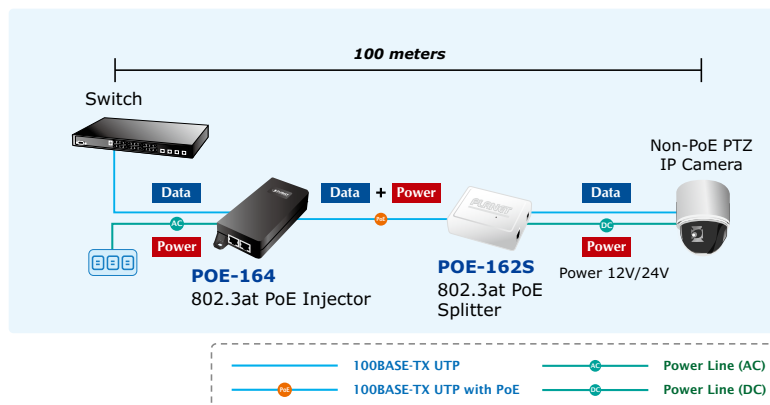
### Connecting to IEEE 802.3at/af Compliant Devices

Because of having the capability of IEEE 802.3at/802.3af Power over Ethernet, the POE-164 can directly be connected to any IEEE 802.3at/802.3af end-nodes such as PTZ (Pan, Tilt & Zoom) network cameras, PTZ speed-dome cameras, color touch-screen Voice over IP (VoIP) telephones and multi-channel wireless LAN access points where the IEEE 802.3at/802.3af In-line Power over Ethernet port is supported.



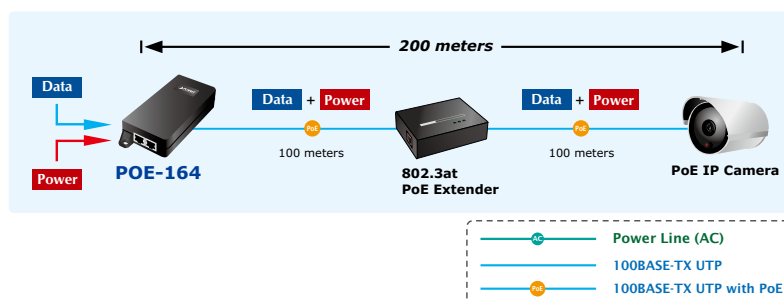
### Installation of IEEE 802.3at Injector and Splitter

For remote non-PoE compliant Ethernet devices to enjoy the convenience of Power over Ethernet, the POE-164 and PoE Splitter operate as a pair to provide the easiest way to power your Ethernet devices which need high power input. For example, the POE-164 delivers the Ethernet digital data with power over the twisted-pair cable. When connected to PLANET POE-162S (IEEE 802.3at PoE+ splitter), the POE-162S will divide the digital data and the power into two selectable DC outputs (12V DC and 24V DC) to non-PoE Ethernet device. Or the POE-164 can co-work with the POE-152S (IEEE 802.3af PoE splitter) to get 5V DC/12V DC output.



### Extended Installation of IEEE 802.3at Injector and PoE

Is a 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, the POE-164 and PLANET PoE Extender, POE-E201, can be a quick and cost-effective option. In the simplest application, the PoE Extender enables a PoE IP camera to be installed up to 200 meters away from the POE-164. The POE-164 delivers PoE power over the first 100 meters to the PoE Extender over UTP cable, and then the PoE Extender forwards the Ethernet data and remaining PoE power to the remote PoE IP camera.



## Product Specifications

Model	POE-164	
<b>Hardware Specification</b>		
Interface	"Data" Input Port	1 x RJ45 STP
	"PoE (Data + Power)" Output Port	1 x RJ45 STP
	AC Input Power Socket	1
LED Indicator	System: Power x 1 (green) PoE Port: Active, PoE ready-in-use x 1 (green)	
Network Cable	10BASE-T: 2-pair UTP Cat. 3, 4, 5, up to 100m (328ft) 100BASE-TX: 2-pair UTP Cat. 3, 4, 5, up to 100m (328ft) EIA/TIA-568 100-ohm STP (100m)	
Data Rate	10/100Mbps	
Dimensions (W x D x H)	115 x 62.5 x 31 mm	
Weight	182g	
Unit Output Voltage	DC 53V, 0.6A	
Power Requirements	100-240V AC, 50/60Hz, 0.75A	
Power Consumption	30 watts (max.)	
Number of Devices that can be powered	1	
Operating Temperature	0 ~ 50 degrees C	
Storage Temperature	-10 ~ 70 degrees C	
Operating Humidity	5 ~ 95%, relative humidity, non-condensing	
Storage Humidity	5 ~ 95%, relative humidity, non-condensing	
<b>Power over Ethernet</b>		
PoE Standard	IEEE 802.3at Power over Ethernet Plus/PSE	
PoE Power Output	DC 53V/30 watts	
PoE Power Supply Type	Mid-span	
Power Pin Assignment	4/5(+), 7/8(-)	
<b>Standards Conformance</b>		
Standards Compliance	IEEE 802.3 10BASE-T Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3at High Power over Ethernet Plus IEEE 802.3af Power over Ethernet	
Regulation Compliance	FCC Part 15 Class B, CE	

## Ordering Information

POE-164	IEEE 802.3at High Power over Ethernet Injector (10/100Mbps, Mid-span, 30 watts)
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## Related Products

POE-151S	IEEE 802.3af Power Over Ethernet Splitter with 5V/12V DC output (10/100Mbps)
POE-152S	IEEE 802.3af Power over Ethernet Splitter with 5V/12V DC output (10/100/1000Mbps)
POE-162S	IEEE 802.3at High Power over Ethernet Splitter with 12V/24V DC output (10/100/1000Mbps)
POE-E201	IEEE 802.3at Power over Gigabit Ethernet Extender (10/100/1000Mbps)
POE-E101	IEEE 802.3af Power over Ethernet Extender (10/100Mbps)