

# ST-POE-2P-WTP

## IP67-Rated POE Extender



The ST-POE-2P-WTP is an IP67-rated PoE Extender, with an operating temperature range from -40°C–60°C. It's ideal for harsh outdoor environments where two units can be daisy-chained to extend the range of PoE devices such as PoE cameras, wireless APs reaching up to 300m from end to end or up to 500m using star topology.

No power adapter is required. The PoE Extender can be powered by a PoE Injector, Middle-Span Hub, or a PoE switch over one networking cable extending the Ethernet range depending on PD's (Powered Device) power requirements and PSE's (Ethernet-based Power Source) power budget per port.

### Features:

- Saves costs of re-wiring and add-on Ethernet switches
- Plug-and-Play installation
- Drives the reach beyond restricted 100m Ethernet distance
- Supported PSEs providing 95W/60W/30W
- Daisy-chain 2 units to reach up to 500m by star topology
- Complete unit does not require power adapter
- Extends range up to 200m for outdoor speed dome requiring 48W
- IP67 / IK10
- Supports the transfer of multicast packets
- Supports Jumbo Frames up to 1977 bytes

### Preparation for Installation

1. Install the device in a ventilated and dry location, that is free of electromagnetic source, vibration, moisture, and dust.
2. Use CAT5 or 6 UTP/STP cables. Avoid using low-quality cables as they will seriously limit the cabling distance. Use minimum 18~19Ω, 24AWG CAT5 cables. Make sure at least one end is un-terminated. It will need to be terminated during installation.

### Installation

**Note: Typical cameras stream size = 1080p@30fps - 6Mbps; 720p@30fps - 3Mbps.**

**Make sure the combined bandwidth consumption does not exceed the uplink bandwidth from the PoE switch.**

***NOTE: There will be power losses due to cable resistance.***

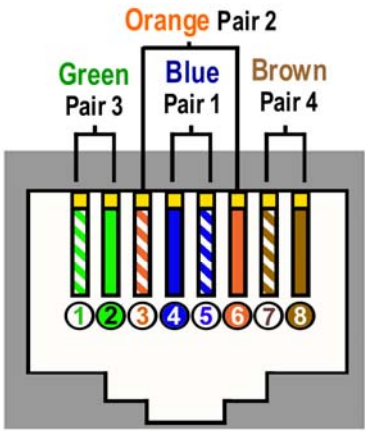
1. Unscrew the cable restraint from the POE IN side of the Extender. Extract the hole plug from the rubber section (if present) and pull the assembly apart into three pieces. (A hole plug is supplied in case you have an unused port on the Extender.)



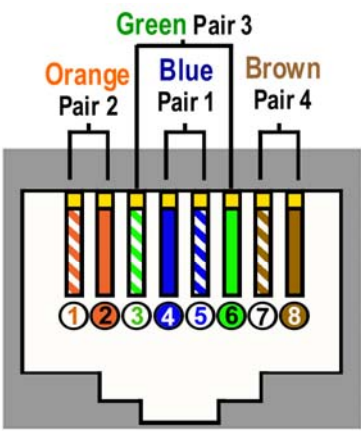
2. Pass a CATx cable (5-6mm diameter) through the three pieces.



3. Terminate the cable end with an RJ45 connector to either 568B standard or 568A standard (depending upon the wiring method of the other end of the cable).



**RJ-45 Jack  
TIA/EIA 568A Standard**



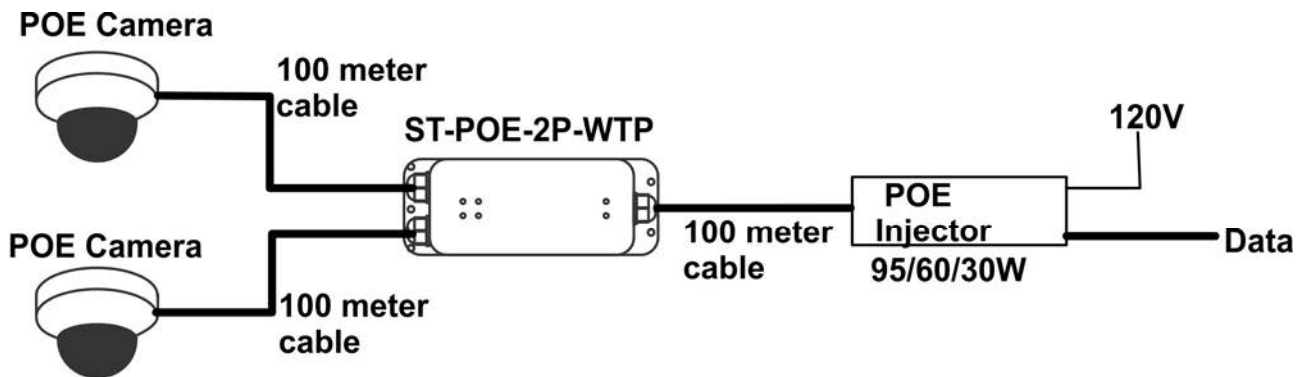
**RJ-45 Jack  
TIA/EIA 568B Standard**



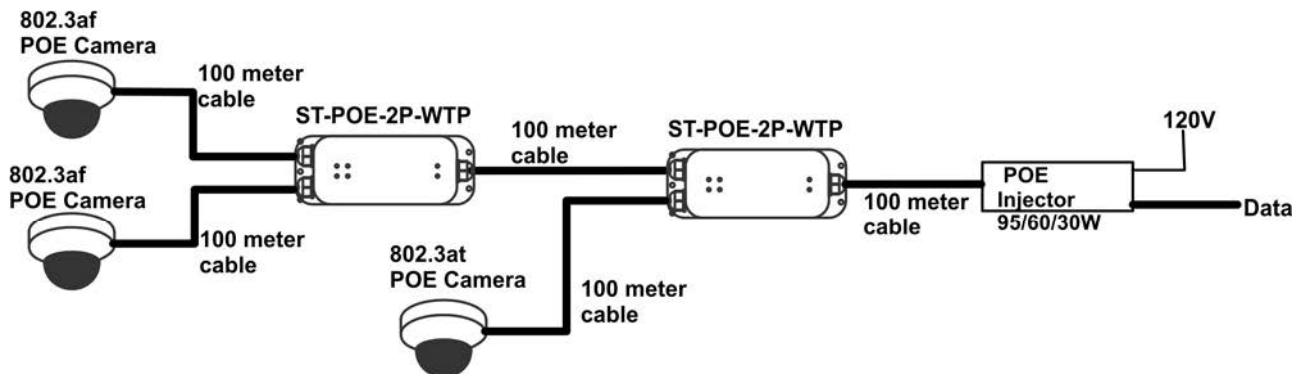
4. Insert the RJ45 connector fully into the socket in the Extender. While holding cable firmly in place, slide the rubber grommet and plastic ring tightly against the extender opening. Screw the restraint cap into place and tighten.



5. Connect the cables as needed for your installation.



### Typical Application



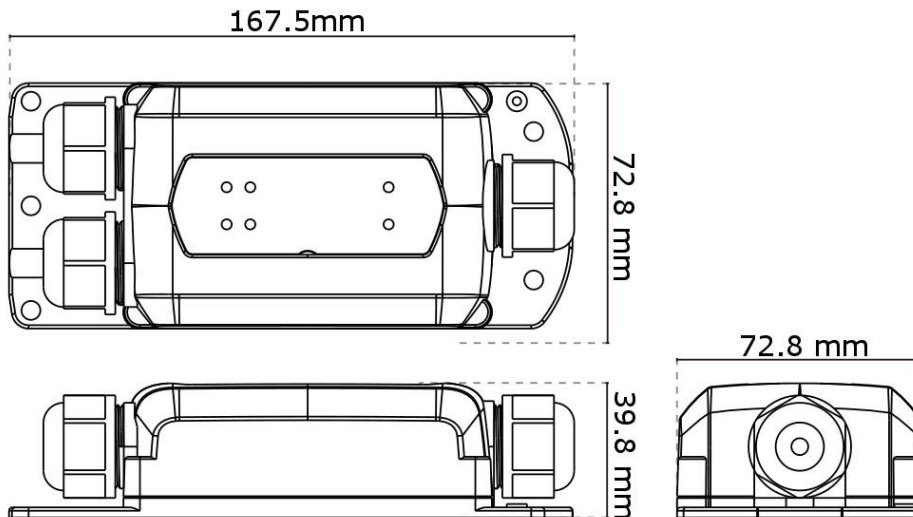
### 500 Meter daisy-chain extension with star topology



**LED Definitions**

PoE IN	Green ON	<b>LAN:</b> Data is being transmitted or received
	Yellow ON	<b>PWR:</b> PoE IN port is connected to PSE
	OFF	No Connection
PoE OUT#	Green ON	<b>LAN:</b> Data is being transmitted or received
	Yellow ON	<b>PWR:</b> PoE OUT port is connected to PD
	OFF	No Connection

**Dimensions**



<b>Networking Specifications</b>	
Total Fast Ethernet Ports	2
Mac Table	2k
Bandwidth	Max. 100 Mbps
Switching Capacity	1 Gbps
Auto-MDI/MDI-x, Auto-Negotiation	Supported
<b>Power Specifications</b>	
Extension Distance	2 Units, Daisy-chain Installation Up to 300M Total Extension. (No Local Power Required)
PD Input Power	50~57VDC, max. 72W
PSE Output Power	44~55VDC, max. 70W
PD Power Pin Assignment	1/2 (+), 3/6 (-); 4/5 (+), 7/8 (-)
PSE Power Pin Assignment	1/2 (+), 3/6 (-); 4/5 (+), 7/8 (-)
PD Fast Ethernet (RJ45)	1
PSE Fast Ethernet (RJ45)	2
Surge Protection/each PoE Port	6KV
<b>Mechanical Specifications</b>	
Dimensions (WxHxD)	167.5 x 72.8 x 39.8 mm (6.59 x 2.87 x 1.57 in.)
LED Indicators	Power, LAN, PoE
Weight	0.36KG
<b>Environmental Specifications</b>	
Weather Rating	IP67
Vandal Proof	IK10
Operating Temperature	-40°C ~ 60°C (-40°F ~ 140°F)
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)
Operating Humidity	10% to 90% non-condensing
<b>Certifications</b>	
EMC	CE, FCC, VCCI, RoHS
Safety	EN60950-1, IEC60950-1
Surge	IEC-61000-4-5