TRIPLETT

USER MANUAL

POC-500M

Passive PoE Extender over 2-Conductor Cable – Ethernet & Power Extension Kit (TX/RX)



v.1.0-04/26

INTRODUCTION

Thank you for purchasing Triplett's POC-500M Passive 2-Wire PoE Extender. We appreciate your confidence in our products and are committed to delivering reliable, high-performance solutions for your network installations. This device is designed to transmit Ethernet and PoE signals over a single-pair, 2-wire cable, enabling efficient and flexible deployment across a wide range of applications. It supports both PoC and PoE functions.

Please read this manual carefully before installation and operation to ensure safe use and optimal performance.

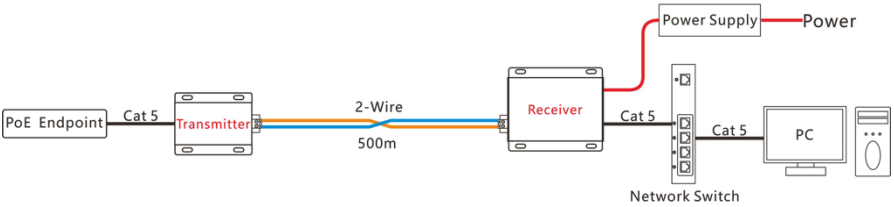
What's in the box:	**Stay updated:**
• Transmitter Unit • Receiver Unit • User Manual	For the most recent version of this user manual, visit www.triplett.com and search for "**POC-500M**". You can also find the latest specifications, FAQs, and product datasheets on our website.

This device contains one Receiver and one Transmitter. They can be connected to the existing cabling infrastructure for IoT devices including IP phones, cameras, access control, speakers.

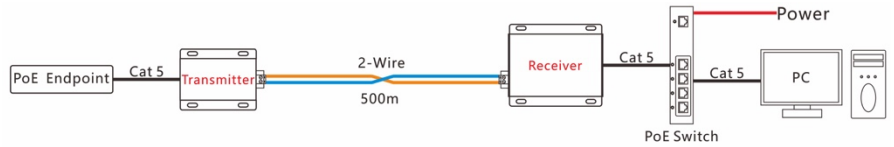
CONNECTION

The product supports two power supply methods: Power adapter and PoE.

When the Receiver unit is powered by 48-56VDC, both the Transmitter and PoE devices are powered without the need for an external power supply.



When the Receiver unit is powered by a PoE switch, both the Transmitter and PoE devices are powered without requiring an external power supply.



LED INDICATORS

Category	Color	Normal	Fault Condition
Power	Red	Steady on	Off or flashing
Line	Green	Steady on or flashing	Off
Link Act	Yellow	Flashing	Off

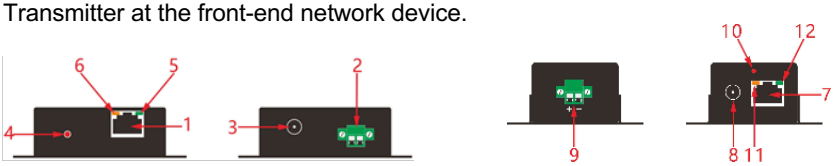
POWER CONNECTION



- The LINE port of the POC-500M outputs DC power and is connected to the LINE port of the POC-500M product. Please do not reverse the +/- polarity of the 2-wire cable or it could cause a short circuit.
- The power port of the POC-500M is to remain idle. Do not connect to power.

INSTALLATION INSTRUCTIONS

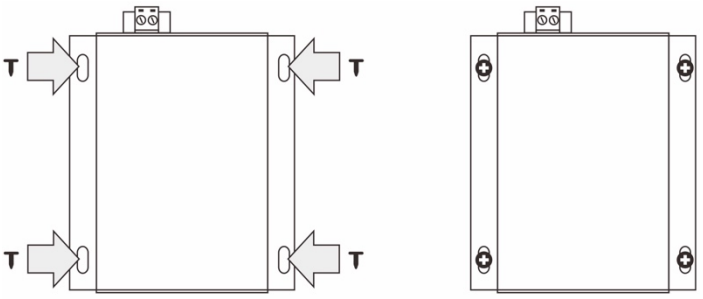
Confirm the installation location based on the product information on the label. Install POC-500M Receiver at one end of the machine room and POC-500M Transmitter at the front-end network device.



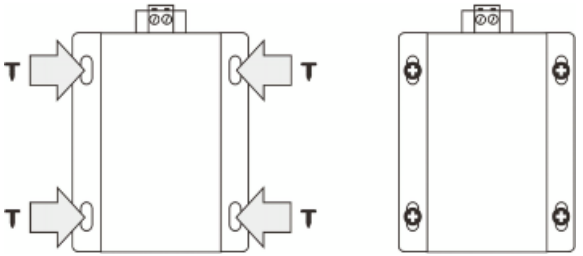
Receiver		Transmitter	
1	Connect PoE power supply equipment to RJ45 terminal of receiver unit	7	Connect network equipment to RJ45 port of Transmitter unit
2	Positive and negative connection terminal of 2-wire cable	8	This port is idle and it is strictly prohibited to connect to the power supply
3	Spare terminal for external power adaptor	9	Positive and negative connection terminal of 2-wire cable
4	Power indicator is always on	10	Power indicator is always on
5	Line indicator is flashing after successful connection	11	Link Act indicator quickly blinks when data is normal
6	Link Act indicator quickly blinks when data is normal	12	Line indicator is flashing after successful connection

MOUNTING INSTRUCTIONS

1. POC-500M Receiver can be installed on the desktop. Use 4mm screws to secure it in the designated position through the mounting holes as shown in the diagram.



2. If POC-500M Transmitter is to be wall-mounted, use 4mm screws to secure it in the designated position through the mounting holes as shown in the diagram.



SPECIFICATIONS

General Specifications

Feature	Description
Function	PoE Extender over 2-wire or coaxial cable (PoE + Data transmission)
Ethernet Standard	IEEE 802.3, IEEE 802.3u
Data Rate	100Mbps (Full Duplex)
Power Input (Receiver)	RJ45 PoE Input: 48–56 VDC (IEEE 802.3af/at/bt)
DC Power Input	48 to 56 VDC
Power Consumption	≤1.5 W per unit
Power Output (Transmitter)	RJ45 PoE Output: 48 VDC (IEEE 802.3af/at)
Material	Aluminum Alloy
Mounting	Desktop or Wall Mount
Operating Temperature	-4°F to 140°F (-20°C to 60°C)
Operating Humidity	<95% RH (non-condensing)

Physical Specifications

Feature	Description
Receiver Dimensions	3.86 × 3.41 × 0.98" (98 × 86.5 × 25mm)
Transmitter Dimensions	3.07 × 2.44 × 1.24" (78 × 62 × 31.5mm)
Receiver Weight	0.35 lb (160g)
Transmitter Weight	0.23 lb (105g)

Power, Bandwidth & Distance – 2-Wire Cable (2 × 0.75 mm²)

Distance	Bandwidth (Mbps)	PoE Output (W) – PoE Input	PoE Output (W) – DC Input
328ft (100m)	84.2	21.0	25.3
656ft (200m)	83.4	20.4	23.1
984ft (300m)	82.0	19.6	20.5
1,312ft (400m)	80.0	12.0	10.5
1,640 ft (500 m)	79.0	11.0	9.0

Note: Actual bandwidth and PoE performance may vary depending on cable quality and environmental conditions.

Troubleshooting

Issue	Possible Cause	Recommended Action
No Power/Power LED Off	Incorrect power source or insufficient voltage	Verify PoE source or DC supply is 48 to 56 VDC
No Power at Receiver	Reversed polarity on 2-wire cable	Check +/- polarity connections
No Communication	Units not compatible or paired	Ensure both units are compatible
Link Active but No Data	PoE device not initialized	Power PoE endpoint before connecting
No Link Between Units	Faulty device or cable	Swap with known good unit
Improper Powering	Dual power sources connected	Use only one power source

CERTIFICATIONS

This product complies with applicable CE requirements, is RoHS compliant, and has been tested to applicable IEC standards.

WARRANTY

Triplett offers warranty to the original purchaser of its products. We guarantee that our products will be free from defects in workmanship and materials for one (1) year from the purchase date.

This warranty does not cover:

- Products purchased from unauthorized distributors.
- Items that have been repaired or altered by unauthorized individuals.
- Damage from misuse, abuse, misapplication, negligence, or accidents.
- Products with altered, defaced, or removed serial numbers.
- Accessories, including batteries.

Imagery is for reference and may be enhanced for clarity. Actual product appearance and screen content may vary slightly. Specifications are subject to change without notice. For the latest information, visit www.triplett.com.

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