



IP/PoE Extension Series

# User Manual

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Model : IP04R

High Power PoE Repeater/ Extender



## Introduction

IP04R is a PoE (Power over Ethernet) repeater that can extend TCP/IP signal and power for an additional 140M. The repeater is also a chainable device. For each IP04R, it can provide a 140M transmission distance. It's a suitable solution for CCTV camera installation.

## Features

- Signal extension up to 140M over a cost-effective CAT5e cable.
- Network bandwidth up to 1000Mbps.
- Can be used as repeater for extending distance greater than 140m.
- Support auto-MDI/MDI-X.
- Support half & full-duplex.
- Support PoE pass-through.
- Plug & Play.

## Installation view

### Point to Point Transmission

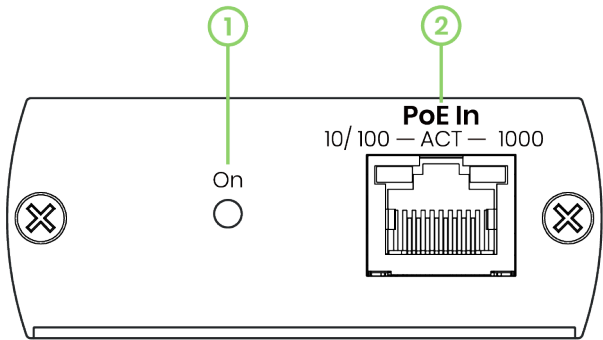


### Chaining Multiple IP04Rs

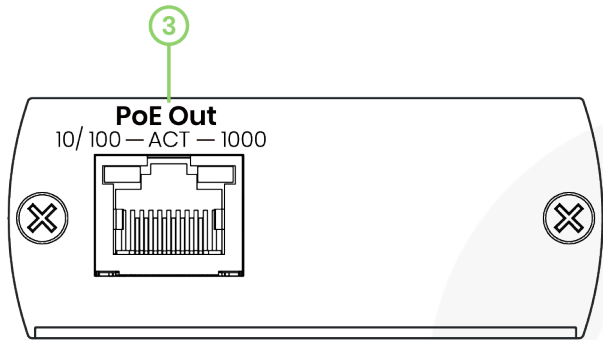


Panel View

Front View



Rear View



No	Interface	Description
1	ON	To indicate the power status.
2	PoE IN	To connect a PSE or PD.
3	PoE OUT	To connect a PSE or PD.

LED Indication

LED	LED Status	Description
Power	Green On/ Off	Power On/ Off
10/ 100 Mbps	Green On	Link Ready
	Green Blink	Data Transmitting
1000Mbps	Orange On	Link Ready
	Orange Blink	Data Transmitting

RJ45 Wiring

Pin	Color	Data
1	Orange-white	DATA0 +
2	Orange	DATA0 -
3	Green-white	DATA1 +
4	Blue	DATA2 +
5	Blue-white	DATA2 -
6	Green	DATA1 -
7	Brown-white	DATA3 +
8	Brown	DATA3 -

## Transmission Performance

### Applying 54V 2.4A Power Input and COMMSCOPE 57535-2 CAT5.e Cable

No. of IP04R	Bandwidth	Distance	Output Power
1	1000Mbps	100M	48.86W
2		200M	42.59W
3		300M	35.08W
4		400M	25.4W
5		500M	18.96W

- The link cable is used in the units of 100M (commonly used length) to experiment with the transmission performance.

## Caution

- Using CAT.5e UTP/ STP/ FTP, and CAT.6 UTP (Solid Conductor) cables are recommended, the greater the diameter of the cable, the fewer the signal and power loss.
- Using Ethernet (Solid Conductor) and coaxial (Solid Center Conductor) cables is recommended, other types of cable may affect the performance of power transfer.
- Bad quality cables, connector, and improper installation may compromise the transmission performance.
- Using STP and FTP network cable may solve the interference issue.
- IP04R can only be connected to PoE devices which support PSE and PD.
- When connecting to IP-enabled devices, IP04R will automatically detects the network bandwidth (even the devices have different bandwidth).
- To enable Jumbo frame, both TX and RX devices should enable the function at the same time.

## Package Includes

No	Item	Quantity
1	IP04R	x 1
2	Accessory Set	x 1

## Specification

ITEM NO.	IP04R
Support	
Compliance	IEEE802.3 10BASE-T IEEE802.3u 100BASE-T IEEE802.3ab 1000BASE-T IEEE802.3 N-Way Auto-Negotiation IEEE802.3x Full Duplex Operation and Flow Control IEEE 802.3bt (PoE Pass-through)
Transmission Distance	140M@1000Mbps
Network Bandwidth	10/100/1000Mbps
Jumbo Frame	9K
ESD Protection	Air: 15kV Contact: 8kV
Ports & Interfaces	
Data Input	1 x RJ45
Data Output	1 x RJ45
Power	
Power Supply	PoE Pass-through
Power Consumption	1W
Ambient Temperature	
Operation	-40 to 70°C
Storage	-40 to 85°C
Operating Altitude	2000m
Humidity	up to 95%
Physical Characteristics	
Dimensions	67 x 110 x 27mm
Weight	180g