Model OT-PLC302-3P

Ethernet Extender

Product User Manual

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OT-PLC302-3P Ethernet Extender allows 10/100 BaseT Ethernet to be transmitted over any 2-wire copper cables. This device is often used in legacy installations where existing wire is re-used as part of an upgrade to IP devices.

This device contains one Receiver unit and one Transmitter unit, which supports point-to-point network transmission. Now this device has been widely used for network extension system, network security, network information publishing system, network renovation and expansion systems, etc.

Features

- Max transmission distance can reach 600m
- Full duplex 10/100Mbps
- Plug and play, transparent transmission, no adjustment and no need to change the upper software
- Low power consumption, communication channel dynamic adjustment and high performance error correction coding technology

Technical Parameter

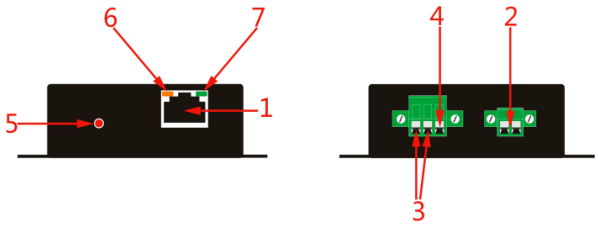
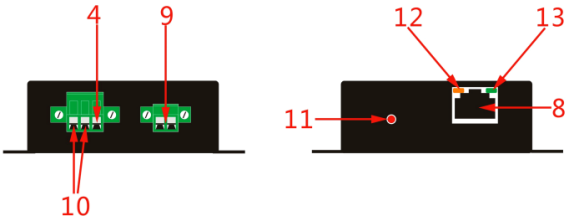
Category		Description
Power	Available Voltage Range	12～24VDC
	Power Consumption	≤2W / PC
Transmission / Rate	Standard Compliance	IEEE1901, IEEE802.3
	Up Down Agreement	CSMA/CA
	Bandwidth	Full duplex 10/100Mbps
	Encryption Way	128-bit AES Encryption
Physical Characteristic	Dimensions (L × W × H)	98mm×86.5mm×25mm
	Material	Aluminum
	Net Weight	150g / PC
Operating Environment	Working Temperature	-20℃～60℃
	Working Humidity	＜95% (Non-condensation)

Installation Instructions

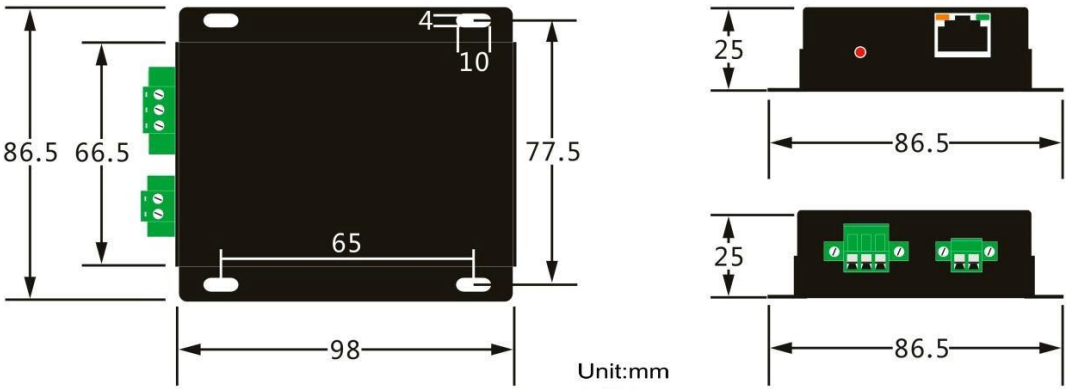
Definition of Receiver & Transmitter; Terminal device & Remote device:

Receiver & Transmitter: Ethernet Extender Unit connected to the computer is Receiver by default. Ethernet Extender Unit connected to the camera is Transmitter by default.

Terminal device / Remote device: Terminal device generally refers to the direction of computer / machine room, and remote device generally refers to the direction of camera.

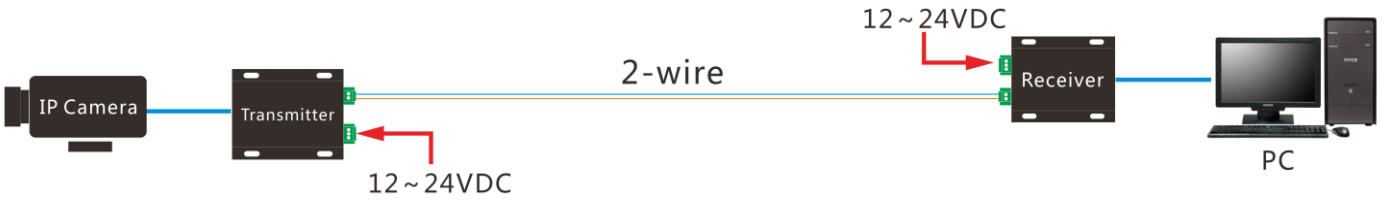
<table>
<tr><td colspan="2">Transmitter
 
</td><td colspan="2">Receiver
 
</td></tr>
<tr><td>Step</td><td>Installation Instruction</td><td>Step</td><td>Installation Instruction</td></tr>
<tr><td>1</td><td>Network equipment is connected to RJ45 port of transmitter unit (1)</td><td>8</td><td>Network equipment is connected to RJ45 port of receiver unit (8)</td></tr>
<tr><td>2</td><td>Transmission 2-wire terminal, no positive and negative electrode (2)</td><td>9</td><td>Transmission 2-wire terminal, no positive and negative electrode (9)</td></tr>
<tr><td>3</td><td>Connect power supply(12~24VDC) to the power port (3), pay more attention to distinguish positive and negative electrode</td><td>10</td><td>Connect power supply(12~24VDC) to the power port (10), pay more attention to distinguish positive and negative electrode</td></tr>
<tr><td>4</td><td>Grounding terminal (4)</td><td>11</td><td>Power indicator is always on (11)</td></tr>
<tr><td>5</td><td>Power indicator is always on (5)</td><td>12</td><td>Network data indicator quickly blinks when data transmission is normal (12)</td></tr>
<tr><td>6</td><td>Network data indicator quickly blinks when data transmission is normal (6)</td><td>13</td><td>Line indicator is always on (or quickly blinks) (13)</td></tr>
<tr><td>7</td><td>Line indicator is always on (or quickly blinks) (7)</td><td></td><td></td></tr>
</table>

Dimension



Note: Dimension error value ±1 mm

Installation Diagram



Troubleshooting Method

1. When direct connection by network cable is normal, the lag time is large after connecting Ethernet Extender.

(1) Check 2-wire connection is correct or wrong. In the case of the wrong connection, the signal can be transmitted but the lag is very large.

2. After a period of using Ethernet Extender, the Ethernet signal has packet loss or disconnection.

(1) Check the power adaptor status, if find they are aged or damaged, please replace it.

(2) Check all the cable connections, if find any loose cable or short circuit, please solve it.

3. The screen is frozen, and the Ping packet is normal.

(1) Ethernet Extender is transparent transmission. Check whether the version and setting of IP Camera are correct or not.

(2) Check whether the throughput of network switch is enough or not. Please directly connect the computer to check the status.

(3) Confirm if all the IP surveillance devices belong to the same brand or not, whether they support onvif, and then check their compatibility, do the test of reducing video stream.

(4) If working environment temperature of Ethernet Extender is too high, firstly cut off the power supply. If confirm the devices are overheated, please adopt temperature decrease measures.

4. When multiple receiver units are placed together for use. they can't communicate or have significant network latency.

(1) Install the receivers with a distance of at least 2 meters or place them separately in metal equipment boxes to avoid signal crosstalk.

(2) Do the grouping for Ethernet Extenders by software. The grouping software is provided by us, please contact us timely.

Use Tips

When you use OT-PLC302-3P, please follow the below tips as a reference, in order to reduce the fault in the process of using and the inspection work.

1. Signal transmission cable must be the copper cable. Other material cables will cause the decrease of signal trans-mission quality and distance.

2. Long distance cable connection must be formal connection methods, such as welding or using connectors.

3. Coaxial cable, twisted-pair cable and telephone line all can be used to transmit network data signal in projects. A variety of cables arbitrary mixed connection also can reduce the quality of signal.

4. Please choose matching power supply **(12～24VDC/1A).**

5. If need to transmit power at the same time, you should install power filter in the front of each device to make sure signal stability.

6. There is no waterproof design for this product, please make sure it is used in dry environment.

7. If device fails, do not disassemble or repair it by yourself. Please contact us timely.

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