

Model OT-PLC-TL24

DIN-Rail Ethernet Extender

Product User Manual



OT-PLC-TL24 DIN-Rail Ethernet Extender is a DIN-Rail Mounting Ethernet Extender, it allows 10/100 BaseT Ethernet to be transmitted using any 2-wire cable. This device supports point to point and point to multi-point network transmission.

This device has been widely used for network extension system, network security, network information publishing system, network renovation and expansion systems, railway, urban traffic, mining and telecommunication, etc.

Features

- ◆ Max transmission distance can reach 600m
- ◆ Full duplex 10/100Mbps
- ◆ 35mm guide rail type installation, wide input voltage range
- ◆ 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

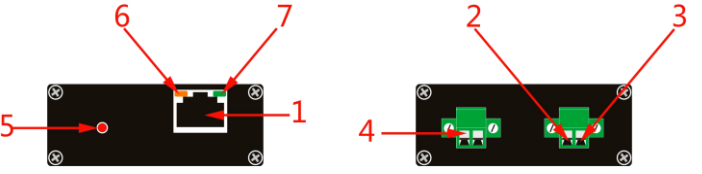
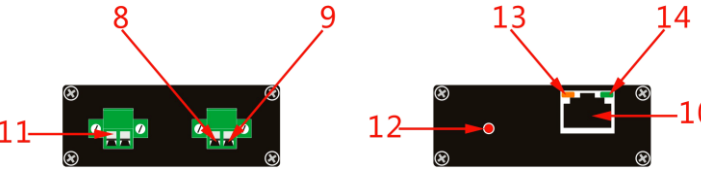
Category		Description
Power	Available Voltage Range	12~24VDC
	Power Consumption	≤2W / PC
Transmission / Rate	Standard Compliance	IEEE1901, IEEE802.3
	Up Down agreement	CSMA/CA
	Bandwidth	Full duplex 10/100Mbps
Product Physical Characteristic	Dimensions (L x W x H)	98mmx66.5mmx25mm
	Material	Aluminum
	Net weight	170g/PC
Operating Environment	Working Temperature	-20°C~60°C
	Storage Humidity	< 95% Non-condensation

Installation Instructions

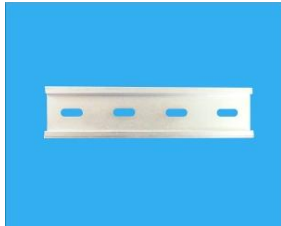



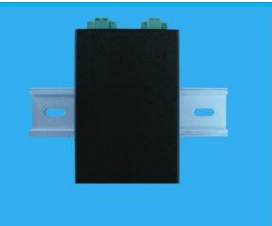
Definition of Transmitter & Receiver; Terminal device & Remote device:

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

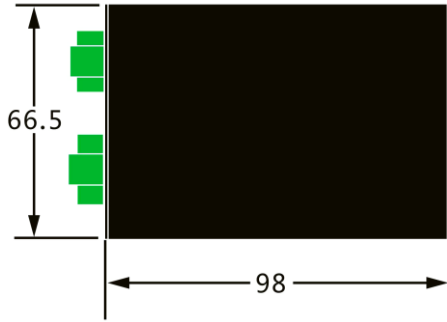
Terminal device / Remote device: Terminal device generally refers to the direction of computer / machine room, and remote device generally refers to the direction of camera.

Receiver		Transmitter	
			
Step	Installation Instruction	Step	Installation Instruction
1	Network equipment is connected to RJ45 port of receiver unit (1)	8	The connection terminal of A line of 2-wire (8)
2	The connection terminal of A line of 2-wire (2)	9	The connection terminal of B line of 2-wire (9)
3	The connection terminal of B line of 2-wire (3)	10	Connect the UTP cable of network equipment to RJ45 port of transmitter unit (10)
4	Connect power supply (12~24VDC) to the power port (4), pay more attention to distinguish positive and negative electrode	11	Connect power supply (12~24VDC) to the power port (11), pay more attention to distinguish positive and negative electrode
5	Power indicator is always on (5)	12	Power indicator is always on (12)
6	Network data indicator, it quickly blinks when data is normal (6)	13	Network data indicator, it quickly blinks when data is normal (13)
7	Line indicator is always on (or quickly blinks) (7)	14	Line indicator is always on (or quickly blinks)(14)

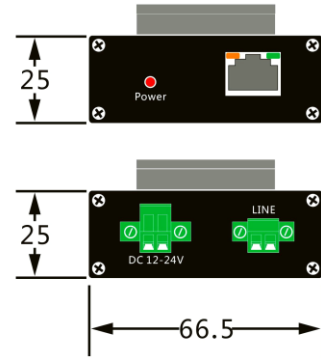
DIN-rail Installation Instruction

				
Use the 33mm guide rail	The slot of guide rail	Insert guide rail from one side of slot	The finished installation	The backside of finished installation

Dimension

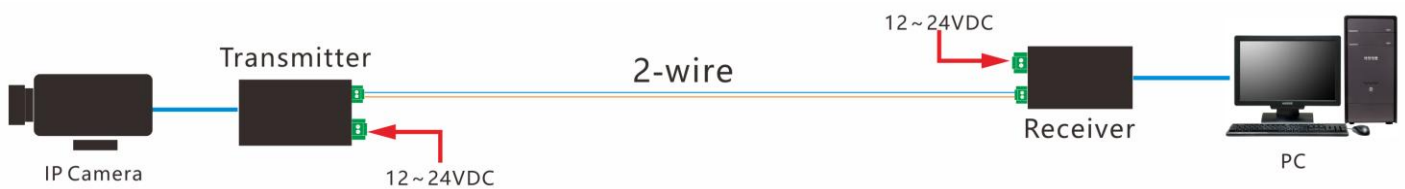


Unit:mm



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-PLC-TL24, 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 transmission 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, telephone line and power 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.



Shaoxing Ourten Electronics Co., Ltd.

#1 Liando U Valley, No. 1999 Wuxing West Road, Shangyu, Zhejiang, China

Tel: +86-21-5888 9980 (+86-575-8213 7256); Fax: +86-575-8212 7256

Email: sales@ourten.com

www.ourten.com

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