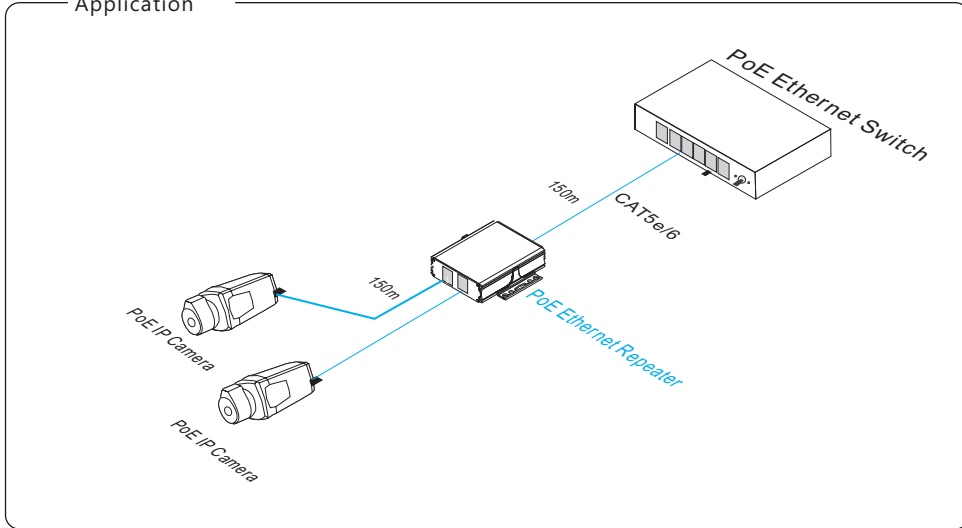# PoE Ethernet Repeater
BRX401-EPSR

BroxNET

It is a PoE Ethernet repeater, which uses advanced network cable drive and power supply technology to extend 100M Ethernet signal to 300 meters, greatly extending the transmission distance and providing PoE at the same time. It is widely used in security surveillance and network project.

Application

■Feature

- Provide 3x 10/100Mbps Ethernet ports, one PoE input port, two PoE output ports, which can meet the requirements of local monitor, long distance transmission and PoE power supply;
- Use advanced net work cable drive technology, the longest distance up to 300m;
- PoE power supply is compatible with End-Span and Mid-Span;
- Meet standards of IEEE802. 3 10BASE-T, IEEE802. 3u 100BASE-TX, IEEE802. 3af/at;
- Excellent circuit isolation protection, effectively improve product's lightning protection,
- ESD and anti-interference ability;
- Appearance and structure: solid and delicate, easily install on the wall and desktop;
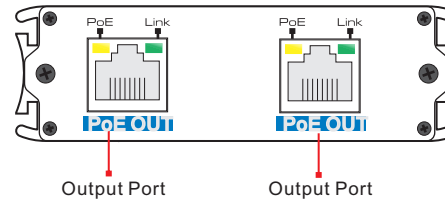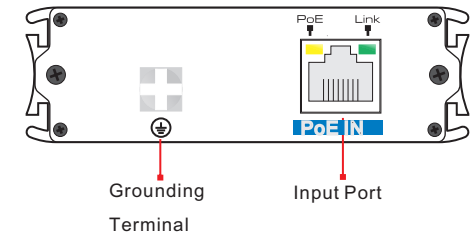- Operation: plug and play, no setting required.

⚠ Notice

Please use standard Cat 5e/6 cable to get the longest transmission distance !

■Board Diagram

Right side   **Left side**

Output Port   Output Port   Grounding   Input Port
                                              Terminal

⚠ Notice :

Device must be connected with lightning protection grounding; otherwise protection level will reduce; please use above No.20 wire to connect the grounding terminal.

Instruction:

LED Indicator	POE IN RJ45		POE OUT RJ45	
	Yellow	Green	Yellow	Green
Blink	/	Data connecting	/	Data connecting
On	PoE input working	Cable connecting	PoE output working	Cable connecting

■Installation Steps

Please check the following items before installation. If any missing, please contact the dealer.

- PoE Ethernet Repeater   1 pcs
- MIT Hangers   2 pcs
- User Manual   1 pcs

Please follow the following step

1) Please turn off the signal source and the device's power, installation with power on may damage the device;

2) Check if the network cable and other transmission line that will be used is occupied by other device;

3) Use a network cable to connect PoE Ethernet repeater's POE IN port with PoE Ethernet switch;

4) Use 2 network cables to connect 2 PoE IP camears with PoE Ethernet repeater's PoE output port respectively

5) Check if the installation is correct and device is good, make sure all the connection is reliable and power up the system;

6) Make sure the network is normal.

■ Specification

Item		Description
Power	Power Supply	PoE Power Supply
	Consumption	＜3W
Ethernet Port	Ethernet Port	PoE IN Port:10/100Mbps, PoE Input Port PoE OUT Port:10/100Mbps, PoE Output Port
	Transmission Distance	150m About the relationship between distance and power,
	Trnasmission Medium	Cat5e/6
	PoE Protocol	Support IEEE802.3af, IEEE802.3at Protocol
	PoE Mode	Compatible with End-Span and Mid-Span
Network Switch	Network Standard	IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX
	Network Delay	＜20us
LED Status Indicator	LED	PoE IN Port and PoE OUT Port: RJ45 yellow light indicates PoE status; green light indicates data exchange
Protection	ESD	1a Contact Discharge Leve 3 1b Air Discharge Level 3 Per: IEC61000-4-2
	Communication Lightning Protection	Per: IEC61000-4-5 Level 3
Environmental	Working Temperature	-40℃~75℃
	Storage Temperature	-40℃~85℃
	Humidity (Non-Condensing)	0~95%
Mechanical	Size (L×W×H)	103mm×82mm×25mm
	Material	Aluminum
	Color	Black
	Weight	195g

Specification change will not be noticed
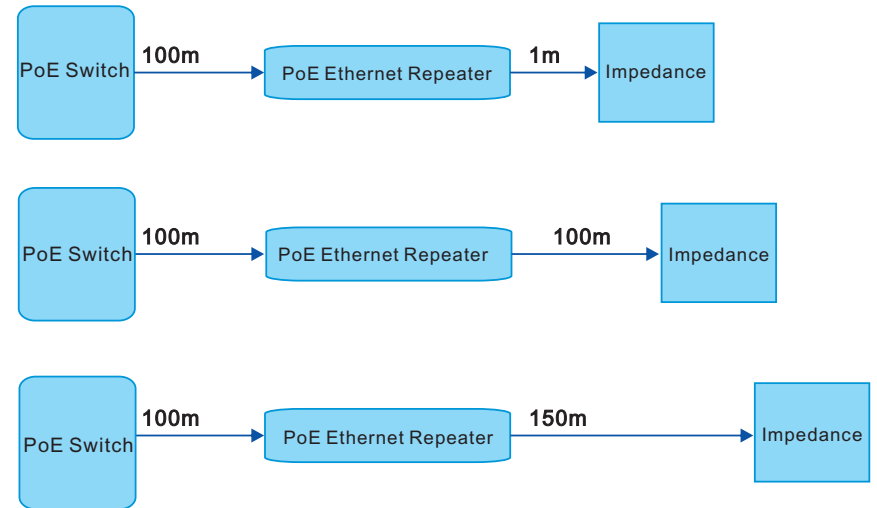
■ Trouble Shooting

Please find the following solution when the device doesn't work

- Please confirm if the installation is correct;
- Please confirm if the RJ45 cable order is in accordance with the EIA/TIA568A or 568B industry standards;
- The maximum transmission distance depends on the signal source and cable quality, please do not exceed the maximum transmission distance;
- Please replace a failure device with a normal one to check if the device is broken;
- If the problem still exist, please contact the factory.

Table 1: Relationship between Single Port power and distance, power divides equally when dual ports work.

PoE IN Side Distance(m)	PoE OUT Side Distance(m)	Impedance Power(W)
100	100	20
100	150	18.8

Picture 1:

PoE Switch — 100m → PoE Ethernet Repeater — 1m → Impedance

PoE Switch — 100m → PoE Ethernet Repeater — 100m → Impedance

PoE Switch — 100m → PoE Ethernet Repeater — 150m → Impedance

Description: The test data in table 1 gained through the test method in Picture 1.