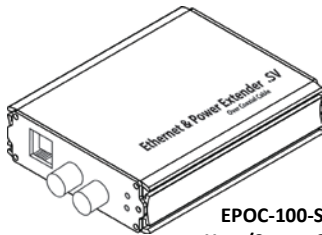
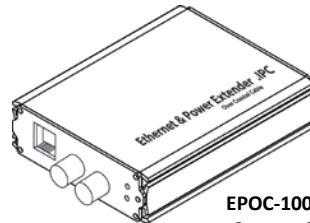


# Ethernet & Power Extender Over One Coax Kit

## EPOC-100K



**EPOC-100-SV**  
Host/Server Side



**EPOC-100-IPC**  
Camera Side

This Ethernet & power extender is consisted of EPOC-100-SV (host/server side) and EPOC-100-IPC (camera side) which can use in a kit or one-to-many. It uses coaxial cable or another type of cable to transfer Ethernet signal and power, and power for cameras and other devices. This product is suitable for long distance transmission of Ethernet signal and power. It can be used in security network video surveillance.

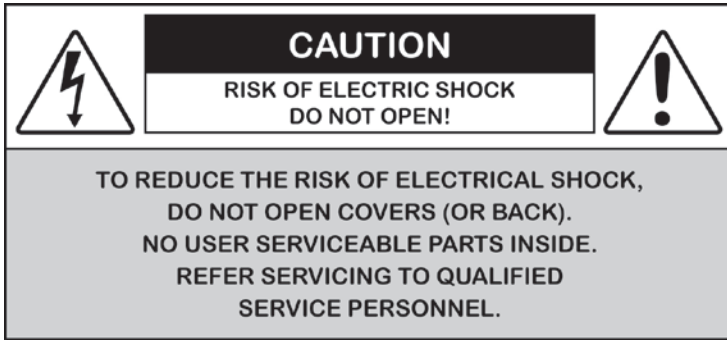
## Features

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- Use coaxial cable to transmit Ethernet signal and power
- Maximum distance up to 2000m / 6500ft
- Network delay less than 1ms
- Optional transmission medium, coaxial cable, power line, telephone cable or UTP cable
- Meet single mode, link mode and star mode network at the same time
- Loop circuit mode ; if there is one breakdown in the circuit, the system can still work normally
- Meet Standard: IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX
- Appearance and structure Solid and delicate, meet MIT rack installation standard
- Protection: Excellent circuit isolation protection, effectively improve product's lightning protection, ESD and anti-interference ability
- 48V~57V DC (EPOC-100-SV)



***Please read the Manual before attempting to use this product.***  
*Specifications and appearance are subject to change without notice.*



**Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems).**

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.



**Caution**

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This product has been tested for conformance to safety regulations and requirements. However, like all electronic equipment, this product should be used with care. Please read and follow the safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

**1. Handle this product with care**

Avoid any shock or bumping of the product. Improper handling could damage the product. Do not handle the unit with wet hands. Provide proper ventilation and air circulation and do not use near water.

**2. Requires a proper operating environment**

This product is not waterproof and is designed for indoor use. The allowable temperature range for operation of this product is between 0°C~40°C / 32°F~104°F.

**3. Check the power source voltage**

The power source voltage should be within the specified range. (Product must meet the specifications).

**4. Objects and liquid entry**

Never push objects of any kind into this product as this may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill any kind of liquid on the product.

**5. Cleaning**

Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.

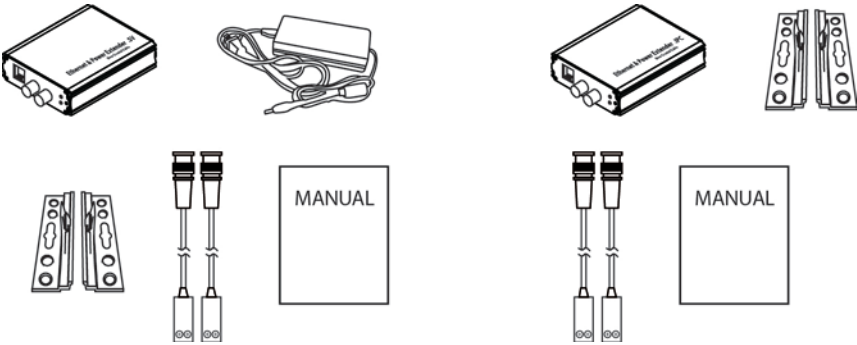
**6. Servicing**

Do not attempt to service this product by yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all service to qualified servicing personnel.

## Package Contents

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- One (1) EPOC-100-SV unit (host/server side)
- One (1) 48V DC Power Supply
- Two (2) Mounting Brackets
- Two (2) 5" BNC to 2-wire Screw Terminal Cable
- One (1) User Manual
- One (1) EPOC-100-IPC unit (camera side)
- Two (2) Mounting Brackets
- Two (2) 5" BNC to 2-wire Screw Terminal Cable
- One (1) User Manual

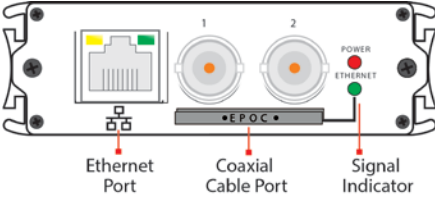


For any returns, please include all components listed above with original packaging in **Resalable Condition**. **Absolutely No Returns** will be accepted if any component is missing/damaged.

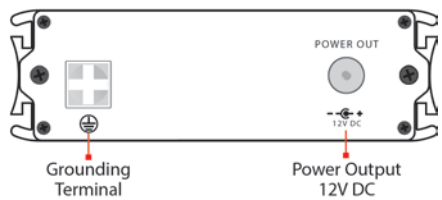
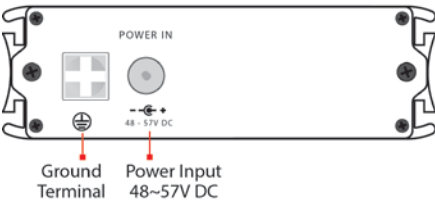
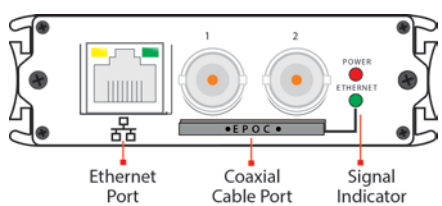
## Parts & Functions

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### EPOC-100-SV (Host/Server Side):



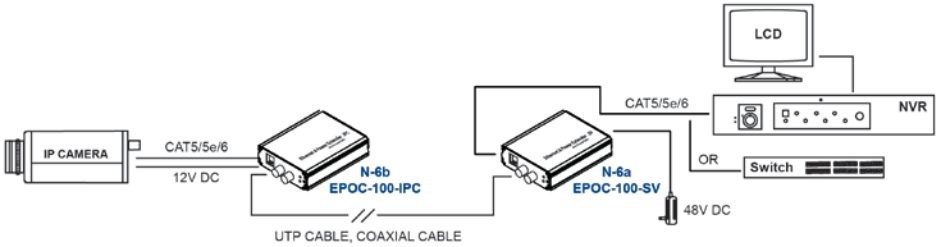
### EPOC-100-IPC (Camera Side):



# Application Diagram

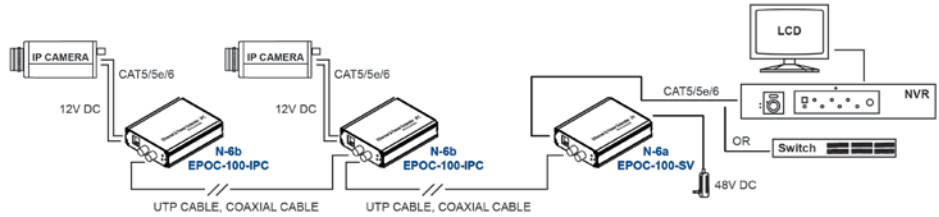
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## Application 1: Point-to-Point



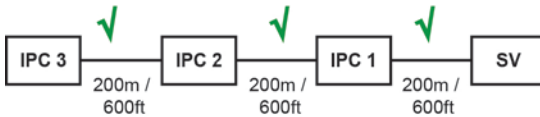
Coaxial			
Distance	Upload (Mbps)	Download (Mbps)	Video
100m / 300ft	99.2	99.2	Clear, Smooth
200m / 650ft	99.2	99.2	Clear, Smooth
500m / 1600ft	99.0	99.0	Clear, Smooth
700m / 2200ft	99.0	99.0	Clear, Smooth
1000m / 3000ft	74.5	82.3	Clear, Smooth
1200m / 3500ft	70.0	71.1	Clear, Smooth
1500m / 4900ft	40.2	46.5	Clear, Smooth
2000m / 6500ft	44.4	28.8	Not Smooth, Interference

## Application 2: Point-to-Serial Chain



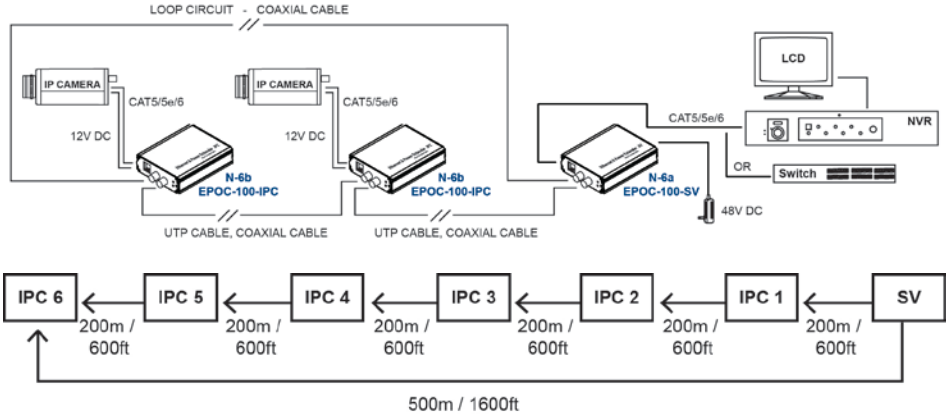
\*It is recommended that no more than two (2) EPOC-100-IPC are used in a serial chain.

*\*It is recommended that no more than two of EPOC-100-IPC are to be used in a serial chain.*



Coaxial				
Device	Distance	Bandwidth (Mbps)	Video Image	Power Output
1	400m / 1200ft	99.0	Clear, Smooth	25W
2	600m / 1900ft	76.0	Clear, Smooth	13W
3	650m / 2100ft	20.0	No Signal	3W
4	800m / 2600ft	15.0	No Signal	
5	1000m / 3000ft	0	No Signal	

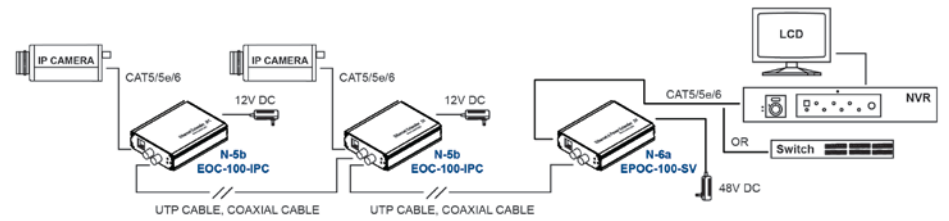
### Application 3: Point-to-Multi Point



Coaxial				
Device	Distance	Bandwidth (Mbps)	Video Image	Power Output
1	200m / 650ft	77.58	Clear, Smooth	10W
2	400m / 1200ft	74.48	Clear, Smooth	7W
3	600m / 1900ft	42.01	Clear, Smooth	7W
4	800m / 2600ft	23.44	Not Smooth; Delay	4W
5	1000m / 3000ft	66.11	Clear, Smooth	5W
6	1200m / 3500ft	72.94	Clear, Smooth	6W

UTP				
Device	Distance	Bandwidth (Mbps)	Video Image	Power Output
1	300m / 1000ft	77.58	Clear, Smooth	25W
2	600m / 1900ft	65.48	Clear, Smooth	12W
3	900m / 2900ft	68.01	Clear, Smooth	23W
4	1000m / 3000ft	23.44	Not Smooth; Delay	8W

### Application 4: (Max with EOC-100-IPC)



Coaxial			
Device	Distance	Bandwidth (Mbps)	Video Image
1	200m / 650ft	70.25	Clear, Smooth
2	400m / 1200ft	60.2	Clear, Smooth
3	600m / 1500ft	14.6	Clear, Smooth
4	700m / 2200ft	0	No Signal

## Hardware Installation

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1. Please turn off the signal source and the device's power, installation with power on may damage the device.
2. Use network cable to connect IP camera with IPC's RJ45 port.
3. Use network cable to connect Receiver's RJ 45 port and NVR.
4. Use telephone cable or UTP cable/Coaxial cable to connect with Transmitter and Receiver's transmission port.
5. Check if the installation is correct and device is good, make sure all the connection is reliable and power for the system.
6. Make sure every network device has power supply and work normally.

## Technical Specifications

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Kit Model	EPOC-100K	
Model	EPOC-100-SV	EPOC-100-IPC
Application Location	Host/Server Side	Camera Side
Power Supply	Power Adapter	Powered by EPOC-100-SV through coaxial cable
Voltage Range	48V~57V DC	
Power Consumption	Whole machine <10W, other consumption for EPOC power output	
Power Voltage	48V-57V	N/A
Output Voltage	N/A	12V DC
Ethernet Port	EPOC Port: Use coaxial cable to transmit Ethernet signal and power Ethernet Port: 10/100Mbps	
Transmission Distance	Coaxial Cable: 2000m / 6500ft (max), (transmission rate decreases with increasing of transmission distance) Cat5\5e\6: 100m / 300ft	
LED Status Indicator	Power: 1 (Red) EPOC Ethernet: 1 (Green) RJ45 Ethernet: 1 (Green), 1 (Yellow), indicate Link/Active	
ESD Protection	1a Contact Discharge 3 Level 1b Air Discharge 3 Level Per: IEC61000-4-2	
MTBF Stability	> 30,000h	
Working Temperature	32°F ~ 131°F / 0°C ~ 55°C	
Storage Temperature	-40°F ~ 158°F / -40°C ~ 70°C	
Humidity (non-condensing)	0~95%	
Dimensions (L x W x H)	82 x 100 x 25 mm / 3.23 x 3.94 x 0.98inches	
Net Weight	180g / 6.35 oz	

\*Specifications are subject to change without notice

## Trouble Shooting

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

## Limited Warranty

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### **LIMITED ONE (1) YEAR WARRANTY AND EXCLUSIONS**

Manufacturer warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time of its sale by Manufacturer is free of defects in materials and workmanship under normal and proper use for one (1) year from the purchase date. Manufacturer's only obligation is to correct such defects by repair or replacement, at its option, if within such one (1) year period the product is returned prepaid, with proof of purchase date, and a description of the problem. This warrant excludes and there is disclaimed liability for labor for removal of this product or reinstallation.

**This warranty is voided if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner, or is not used under normal operating conditions or not in accordance with any labels or instructions. There are no other implied warranties of any kind, including merchantability and fitness or a particular purpose, but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warrant, including merchantability and fitness of or a particular purpose, is limited to one (1) year.**

**Manufacturer is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, loss sales or profits or delay or failure to perform this warranty obligation.** The remedies, provided therein are the exclusive remedies under this warranty, whether based on contract, tort or otherwise.

[www.AAS.com.tw](http://www.AAS.com.tw)

# CAUTION!!!

**Failure to read this notice may result in damaging the camera or device in which the warranty will be voided due to installation error.**

When using any type of RJ45 jack powered balun, a **Cable Tester** must be used to ensure proper connection. Many individuals can make RJ45 connections easily, however mistakes can be made. When making connections for powered baluns, make sure to test the connectivity and ensure proper alignment on both sides.

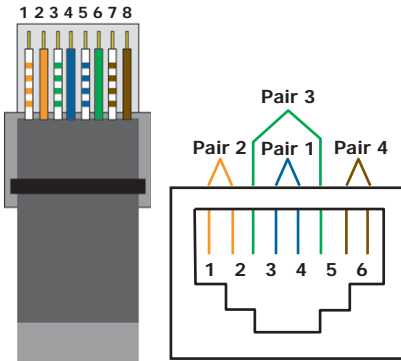


Cable Tester

When using passive or active baluns, the alignment of the cable are imperative to the success of the operation. Use a Cable Tester because it is a very simple, yet easy to find tool that can save a huge headache. For example, if one of the video wires accidentally gets crimped into the power side and the powered balun are then hooked up to the camera, both the camera and the balun have just burned out. This is an extremely costly mistake, not only in dollars but in time as well. How long does it take to test the RJ45 using a Cable Tester? **Less than one minute.**

**The new terms and conditions state: When an RMA is requested and the product has been burned by bad RJ45 connections, the product is NO LONGER covered under warranty.**

**Note:** Whichever way the RJ45 is terminated on one end of the cable, IT MUST BE THE SAME ON THE OTHER SIDE for either TIA/EIA 568A or TIA/EIA 568B. Below is an example of TIA/EIA 568B.



TIA/EIA 568B

Pin	Pair	Color	Character
1	2	Orange / White	Video +
2	2	Orange	Video -
3	3	Green / White	Power -
4	1	Blue	Power -
5	1	Blue / White	Power -
6	3	Green	Power +
7	4	Brown / White	Power +
8	4	Brown	Power +



MADE IN CHINA