

# ETHERNET OVER UTP MASTER / SLAVE TRANSCEIVER

## MODEL: EA-EOU101K

### Description:

EA-EOU101 is designed to extend IP Ethernet transmission and use UTP cable to IP cameras or devices. EA-EOU101 transmission distance up to 1000 m, these transceivers are extremely simple to use. Status LEDs indicate power and link connectivity/activity for RJ45 ports.

### Feature:

- No PC required, plug & play and reducing cables cost
- Transmit IP camera or other 10/100 base-T full duplex IP devices over CAT-5e cable
- Up to 1000 meter transmission distance by CAT-5e cable
- Built-in 6KV surge protection at BNC and 4KV at RJ45 ports
- Multi EOU transceiver / IP cameras to one transceiver at NVR side transmission

### SPECIFICATIONS

MODEL	EA-EOU101		
<b>Extender Interface</b>			
Connector Type	1 x BNC with BNC to Terminal Block Adaptor (15-BT104)		
Cable Type	The Straight through cable Cat-5e / Cat-6		
Max. Transmission Distance	1000 m for the Cat-5e cable		
<b>Ethernet Interface</b>			
Connector Type	1 x RJ45 with LEDs on Connector		
Cable Type	Straight through or cross-over Cat. 5 Cable		
Rate	IEEE 802.3x, Auto-Detection for 10/100 Base-T and full/half duplex		
<b>Control &amp; Indicators</b>			
Color LED	UTP Data Signal Strength Green: GOOD (Link speed > 60 Mbps) Amber: MEDIUM (Link speed 20 ~ 60 Mbps) Red: BAD (Link speed < 20 Mbps) OFF: NO LINK		
Yellow LED (On RJ45)	Power On		
Green LED (On RJ45)	Link/Act.		
Push Button	Reset / Pairing <sup>(1)</sup> (Join or Leave Network Group <sup>(2)</sup> )		
	Push Duration	LED Status	Description
	1 - 3 sec	Red Blinking	Join/Host New Network Group <sup>(3)</sup>
	5 - 8 sec	Amber Blink Once - > OFF	Leave Current Network Group <sup>(4)</sup>
	12 - 30 sec	OFF - > Amber Blink Once	Reset to Default Network Group
<b>Power</b>			
Input Operating Voltage	DC 12V / 500 mA		
Power Consumption	1.5 W		
<b>Mechanical &amp; Environmental</b>			
Weight	175 g		

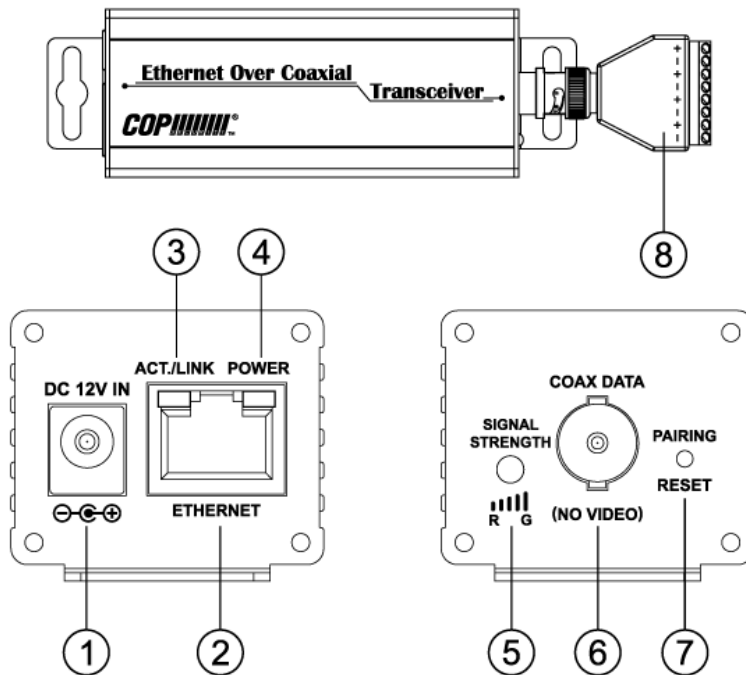
Dimensions (W x L x H)	38 x 120 x 33 mm
Operation Temperature	-20°C ~ +60°C
Storage Temperature	-30°C ~ +80°C
Humidity	20% to 85% RH (non-condensing)

1. All EA-EOC101 factory default is paired to the same network group, it can be installed directly, no need pairing again
2. The transmission system consists of one EA-EOC101 transceiver at NVR side and up to four EA-EOC101 transceivers that connect to IP cameras or other IP device
3. Use two or more transmission systems at NVR side, and there are crosstalk problems on cables that between different transmissions systems, otherwise no need to do **pairing** process.
4. To join another network group, must **leave** current group first, then do the group **join**.

**Packing:**

- |                           |     |
|---------------------------|-----|
| 1. Transceiver            | x 2 |
| 2. BNC Adaptor (15-BT104) | x 2 |
| 2. Wall Mount Kit         | x 2 |
| 3. Power Adaptor          | x 2 |

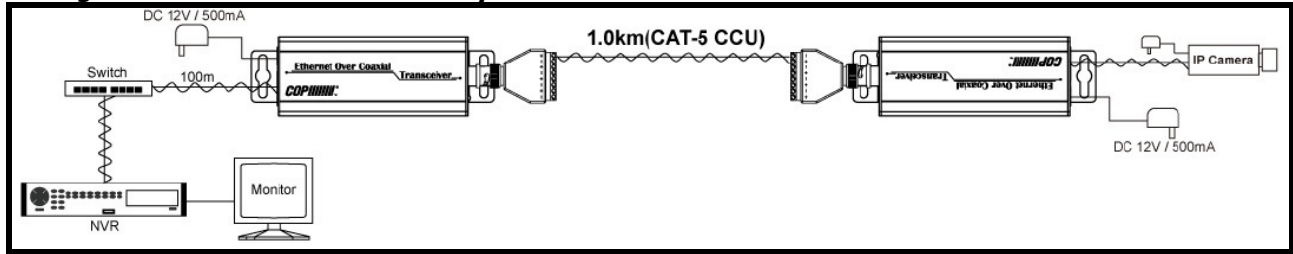
**PANEL DESCRIPTIONS:**



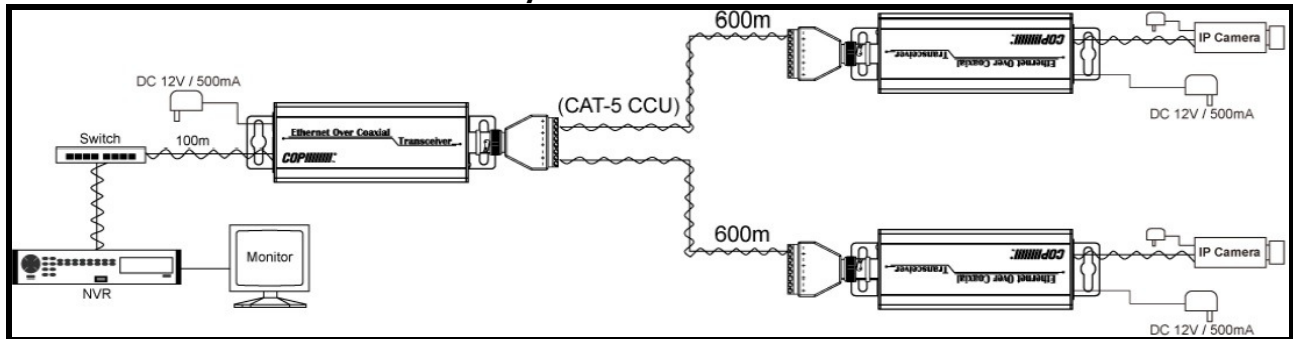
1. DC12V IN: Power supply DC12V/500mA
2. ETHERNET: Ethernet Interface (10/100MBPS for full duplexer)
3. ACT/LINK: Data Link for indication LED
4. POWER: Power On for indication LED
5. SIGNAL STRENGTH: G (Green) : GOOD  
A (Amber) : MEDIUM  
R (Red) : BAD  
OFF : NO LINK
6. COAX DATA: Plus BNC Adapter can UTP Transmission
7. PAIRING / RESET : **PAIRING** for network group **join/leave**, **RESET** for factory default network group.
8. BNC Adapter: BNC to Terminal Block adaptor (COP PN: **15-BT104**)

# CONNECTION DIAGRAM:

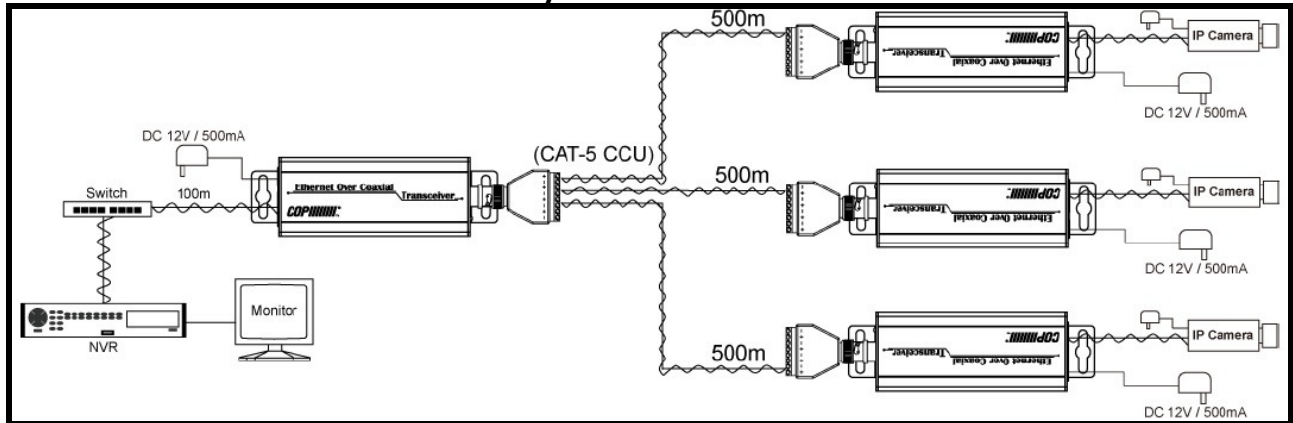
## 1. Single Camera EOU Transmission System



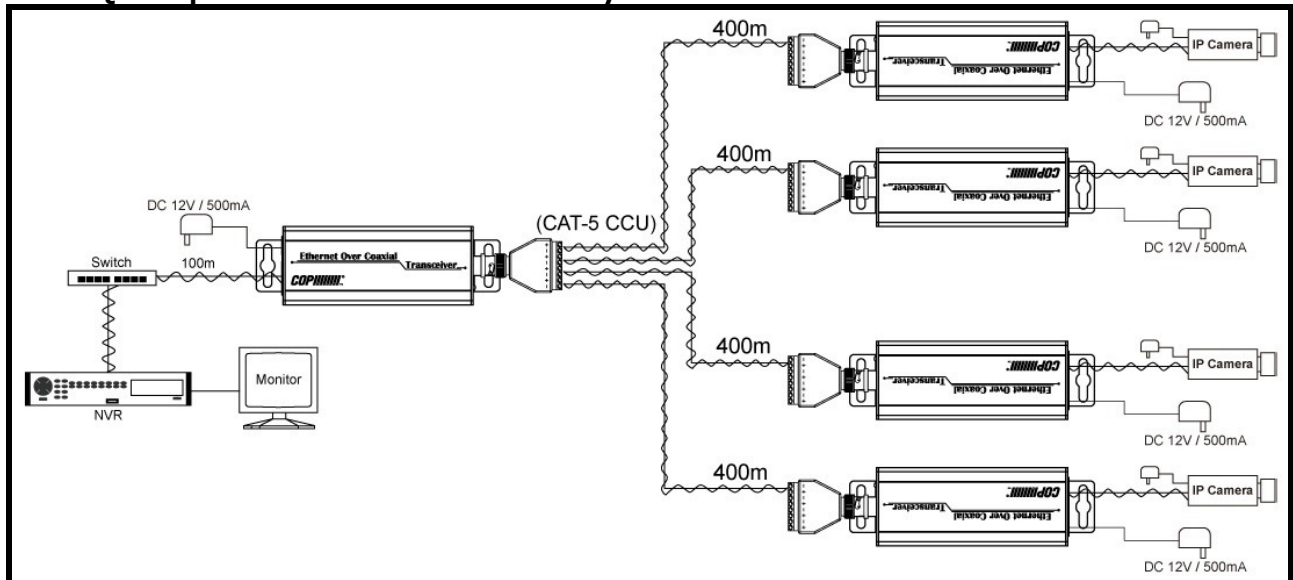
## 2. Star Two Cameras EOU Transmission System



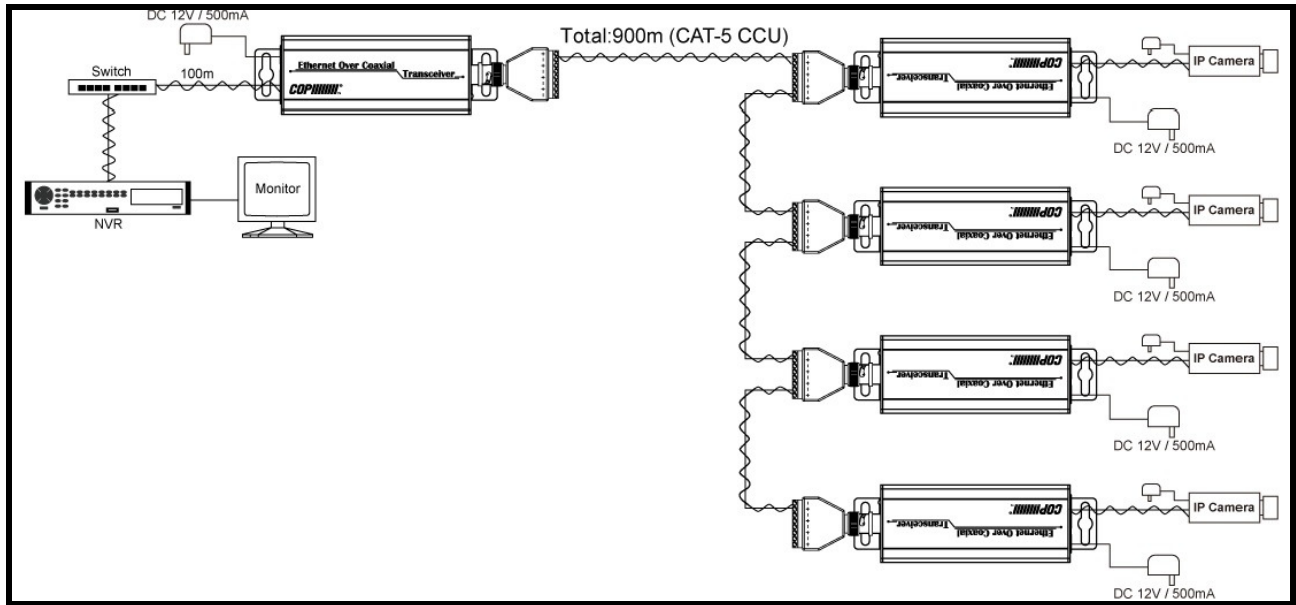
## 3. Star Three Cameras EOU Transmission System



## 4. Star Quadruple Cameras EOU Transmission System



## 5. Daisy-Chained Quadruple Cameras EOU Transmission System



**Notice:**

The cable quality, camera bandwidth requested and supply power noise will cause the distance which may not match as above specification.

## **Before do the pairing process, please check as below notice**

1. If only setup one transmission system at NVR or control room side, no need to do pairing process.
2. When using two or more transmission systems at NVR or control room side, if there are no cross-talk problems between different transmission systems, no need to do pairing process.

## **EOC/EOU Transmission System Network Group Pairing Instructions**

### **Step 1 : Setup EOC/EOU Transmission System**

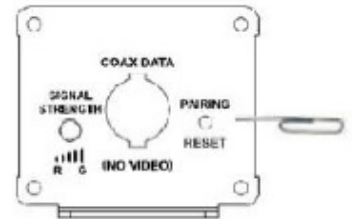
Connect all the coaxial, cat. 5e cables between transceivers, setup cameras and NVR then power supplied to the system that one of the application diagrams.

### **Step 2 : Host/Master Side Leaving Current Network Group**

On transceiver at NVR side, using the straightened paper-clip to access the small push button for **5 ~ 8 seconds**, the color LED will begin **AMBER** blinking once then **OFF**.

### **Step 3 : Host/Master Side Create an New Network Group**

On transceiver at NVR side, using the straightened paper-clip to access the small push button for **1 ~ 3 seconds**, the color LED will begin **RED** blinking.



### **Step 4 : Slave Side Transceiver Leaving Current Network Group**

On transceiver at Remote side (close to IP camera/device), using the straightened paper-clip to access the small push button for **5 ~ 8 seconds**, the color LED will begin **AMBER** blinking once then **OFF**.

### **Step 5 : Slave Side Transceiver Joining New Network Group**

EOC/EOU transceivers at Remote side (close to IP camera/device), using the straightened paper-clip to access the small push button for **1 ~ 3 seconds**, the color LED will begin **RED** blinking. The transceivers will find each other and starting the transmission.

### **Step 6 : Adding Additional Transceiver Joining New Network Group**

Repeat Step 3 and 5 to adding additional transceiver to new network group.

## **In pairing Process Notice**

1. In joining or leaving process, if you are not sure that joining or leaving has been successful, you can RESET the transceiver (press the push button 12 to 30 seconds) and repeat above steps.
2. After re-apply power or RESET transceiver, please wait color LED Amber blinking once then GREEN, its means power on reset finished and you can do the pairing process.
3. The transceiver is from LEAVE to JOIN state (color LED RED blinking), it must join new network group in 2 minutes, otherwise it will become LEAVE state again.