

# IP CABLING TRANSMISSION

## ITEM NO.: IP09CK Ethernet Extender over Coaxial



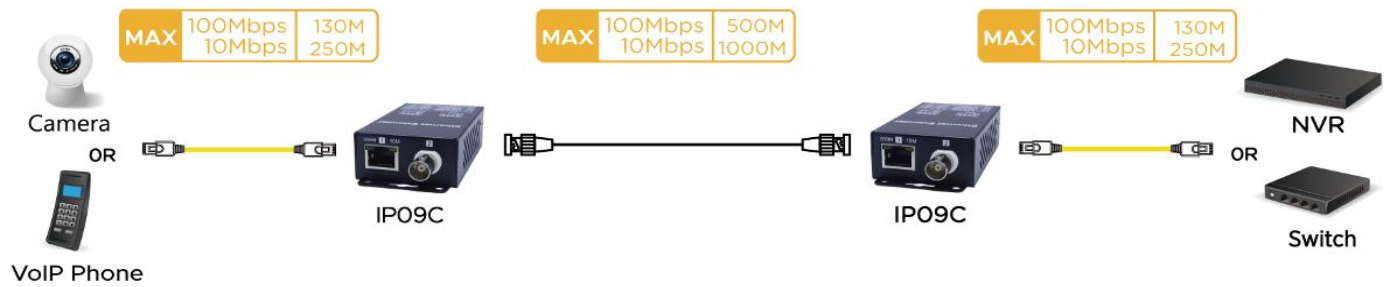
The IP09CK is born to break the limitation of Ethernet transmission of 100M and extends any networking devices up to 800M over Coaxial cable. Furthermore, the IP09CK is completely transparent to protocols, codes, and applications, ensuring its great compatibility with any TCP/IP device and its management software. It is a perfect solution for extending TCP/IP signal to extra remote camera.

### Features:

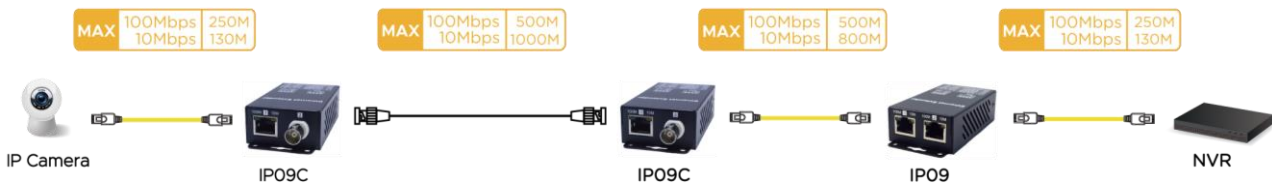
- To send and extend TCP/IP signal distance up over coaxial cable.
- BNC side maximum transmission distance: 500 meters at 100Mbps, 1000 meters at 10Mbps
- RJ45 side support 10BASE-T, 100BASE-TX, 100BASE-T1 standard.
- RJ45 side transmission distance: 500 meters at 100Mbps, 800 meters at 10Mbps with IP09
- Support Auto MDI/MDI-X.
- Support Full duplex and half duplex mode.
- Support EEE Energy-Efficient Ethernet.
- BNC side built-in 30KV (ESD) and 30A (Lightning) surge protection.
- RJ45 side built-in 1.5KV (Line to Line) surge protection.

## Installation:

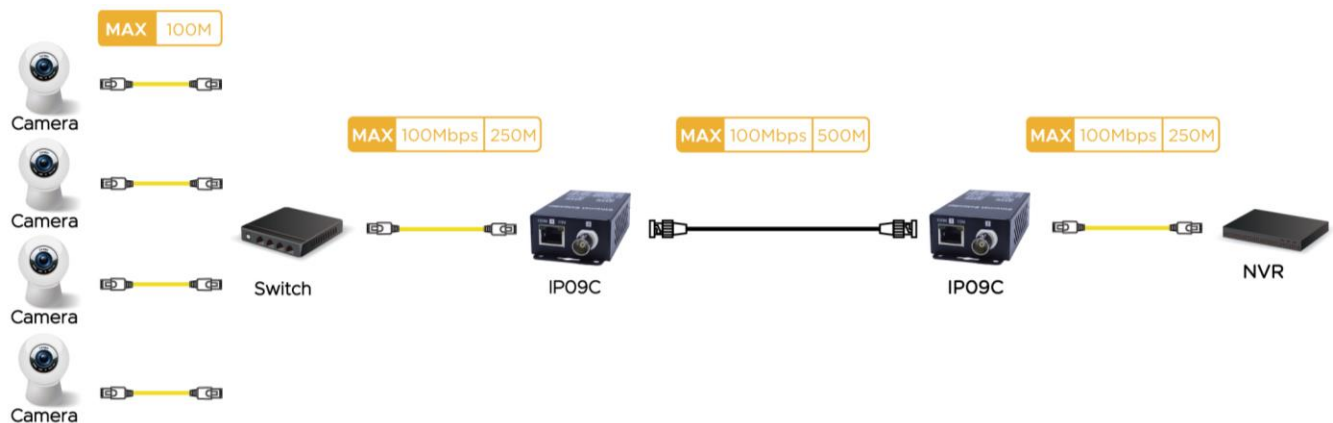
### (1) Point to Point Transmission



### (2) Extra Long Extension by connecting with IP09



### (3) Long Distance for Multiple cameras transmission

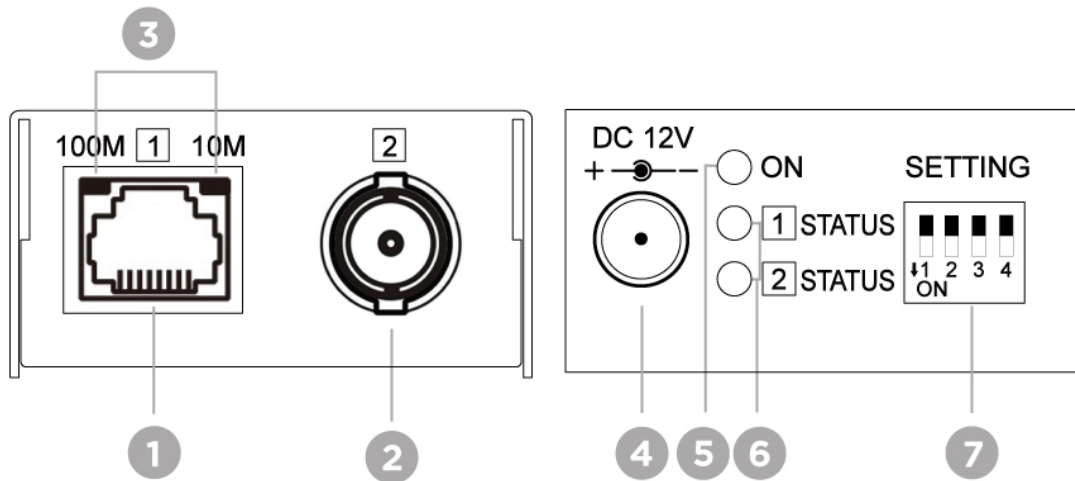


## Transmission Distance Chart:

The transmission distance test report below is by means of using the COMMSCOPE 57535-2 (CAT5e 24AWG) cables and 75Ω RG59 or RG6U coaxial cables.

Port / Cable	Mode and Data Rate	Distance
RJ45 - CAT.5e	100BASE-TX 100Mbps	<b>130M</b>
RJ45 - CAT.5e	100BASE-T1 100Mbps	<b>300M</b>
RJ45 - CAT.5e	Long Reach 100Mbps	<b>500M</b>
RJ45 - CAT.5e	10BASE-T 10Mbps	<b>250M</b>
RJ45 - CAT.5e	Long Reach 10Mbps	<b>800M</b>
BNC - RG59 (75-3)	100Mbps	<b>300M</b>
BNC - RG6U (75-5)	100Mbps	<b>500M</b>
BNC - RG59 (75-3)	10Mbps	<b>800M</b>
BNC - RG6U (75-5)	10Mbps	<b>1000M</b>

## Panel Review:



No.	Interface	Function
1	RJ45 Connector	Port 1 ; To connect networking devices or another IP09 (Refer to Description 1,2)
2	BNC Connector	Port 2 ; To connect the other endpoint of IP09C (Refer to Description 1,2)
3	RJ45 LED	To indicate the network connection status (Refer to Description 3)
4	Power Jack	To connect DC12V 0.5A adapter
5	Power LED Indication	To indicate the power status (Refer to Description 4)
6	Status Indication	<input type="checkbox"/> Status : Port 1 mode indication (Refer to Description 5) <input type="checkbox"/> Status : Port 2 mode indication (Refer to Description 5)
7	DIP Switch	To select the desired mode (Refer to Description 6)

## Description:

- Link speed of port 1 and 2 must be sync, or they are not able to activate network connection.
- Once the port 1 and 2 remain unlinked, the IP09C will automatically turn to Power Saving mode.
- RJ45 LED

Date Rate	Light On	Light Off	Light Blinking
100Mbs	Enable	Disable	Data Transferring
10Mbs	Enable	Disable	Data Transferring

- LED Indication

Green On	Green Off	Light Breathing
Power On	Power Off	Power Saving

5 Status indication:

☐ Status:

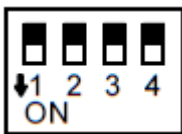
Blue On	Blue Off	Light Blinking	Blink twice
Long Reach	Ethernet	100BaseT-T1	Hardware Failure

☑ Status:

Blue On	Blue Off	Light Blinking
10Mbps	Disable	100Mbps

6 Dip Switch Setting:

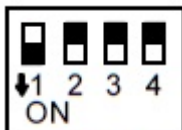
6.1 Auto Mode / Default (Highly Recommended)



Dip switch 1-2-3-4 all up (OFF)

Auto Mode to enable auto negotiation which automatically set up the link speed and transmsion protocol.

6.2 Auto+EEE Mode



Dip switch 1 down (ON), 2-3-4 up (OFF)

Auto+EEE mode supports Energy-Efficient Ethernet based on Auto Mode.

6.3 Advanced Mode

Please refer to the chart below to manually set up the Link Speed, and Modes

No.	Mode	↑ OFF	↓ ON
1	LINK SPEED	10Mbps	100Mbps
2	ETHERNET	Disable	Enable
3	100BASE-T1	Disable	Enable
4	LONG DISTANCE	Disable	Enable

※Link speed of 10Mbps is not supported on 100BASE-T1 mode

**Auto-Negotiation Priority :**

Priority	Mode
1 (Highest)	Long Distance 100Mbps
2	100BASE-T1
3	Long Distance 10Mbps
4	100BASE-TX Full Duplex
5	100BASE-TX Half Duplex
6	10BASE-T Full Duplex
7 (Lowest)	10BASE-T Half Duplex

## IP09CK Package Include:

- 2 x IP09C
- 2 x DC12V 500mA Power Adapter
- 2 x accessory bag (4 x Screw, 4 x Screw Plug)

## Specification:

ITEM	IP09C
Standard	IEEE 802.3 10BASE-T Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3bw 100BASE-T1 Ethernet IEEE 802.3 Nway Auto-Negotiation IEEE 802.3x Full Duplex Operation And Flow Control IEEE 802.3az Energy Efficient Ethernet
Data Rate	10 Mbps / 100 Mbps
RJ45 Side Distance (Max)	100BASE-TX 130M / 10BASE-T 250M 100BASE-T1 300M Long Distance 100 500M / Long Distance 10 800M
BNC Side Distance (Max)	RG59 (75-3) 10Mbps 800M / 100Mbps 300M RG6U (75-5) 10Mbps 1000M / 100Mbps 500M
Ethernet Connector	RJ45 x 1
Coaxial Connector	75Ω BNC x 1
Power Supply	12V Regulated
Power Consumption	1W (90mA)
Power Adapter	DC 12V 500mA Regulated x 1
Dimensions (mm)	49 x 98.7 x 25
Weight (g)	130

RoHS   

Rev.A 200110