# PoE Ethernet Extender
User Manusal
Ver1.2

The product is an Ethernet extender which can transfer Ethernet signal and power by Ethernet cable or coaxial cable. It consists of SV and IPC Pieces. This product is specially designed to meet the power supply in the long-distance HD IP transmission and accord with IEEE 802.3af and IEEE 802.3at standard. This device can transfer the Ethernet signal and power up to 300m through the coaxial cable, But network latency is less than 20us.The structure designing of built-in splicing slot on both sides and magnetic attraction as well as hanger on the bottom enables multiple installation methods of splicing, adsorption , and wall-mounting.So it is a cost-effective choice for the HD network surveillance system, transmission and application of the IOT, as well as upgrading and renovating projects.

Application
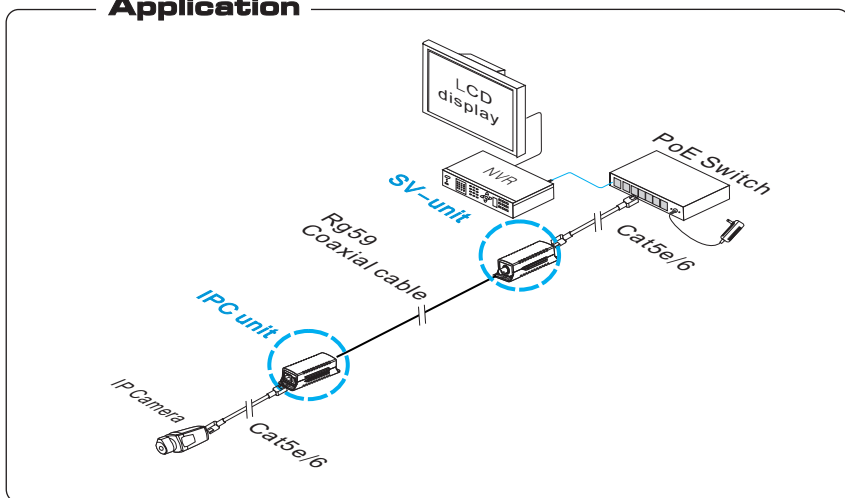
■Features

● Transfer 60Mbps bi-direction Ethernet signal via coaxial cable, And the transmission distance of Ethernet and power signals up to 300m;

● Support IEEE 802.3u 100Base-TX,IEEE802.3 af/at standard;

● Low delay rate, less than 20us;

● Plug and play, no other software and transfer agreement needed;

● Built-in splicing slot, with magnet and hanger, unique and integrated design, splicing, desktop and wall-mounted installations available, which suits in all kinds of engineering installation.

⚠ Notice

1) Would you please finish the connection wire and then to turn on the power;
2) Would you please don't plug in/out the coax wire if it is charged .

■Panel Diagram
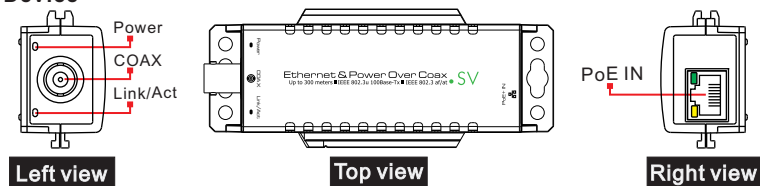
IPC Unit Device
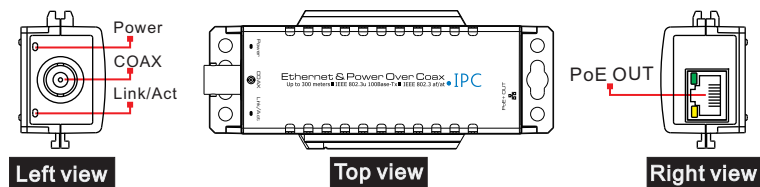
SV Unit Device

Diagram I

■Installation steps

Please check the following items before installation, if anything missing, please contact the dealer .

● IPC Unit Device   1 PC
● SV Unit Device   1 PC
● User Manusal   1 PC

Please follow installation steps as below:

1) Turn off the power of all related devices before the installation, otherwise the device would be damaged;
2) Check if the Ethernet cable and other cables are connected correctly;
3) The RJ45 port of SV piece is supposed to be connected with PoE Ethernet switch by Ethernet cable, and the BNC port is connected by coaxial cable;
4) Connect the other side of coax on the BNC port of IPC piece. The RJ45 port of IPC piece is supposed to be connected with IP camera by Ethernet cable;
5) Check if the installation is correct and PoE device is good, make sure all the connection is reliable and power up the system;
6) Make sure the network is working.

■ Specification

The specification parameter as below can match SV piece and IPC piece

Item		Description
Power	Power Supply	PoE
Connetor	Port	BNC, RJ45
	Transmission distance	Ethernet cable:0~100m Coaxial cable：0−300m(Recommend) (Please reference to the diagram Ⅱ to distinguish the relation between power consumption and transmission distance)
	Media	RG 59 or above coaxial cable & Cat5e/6 Ethernet cable
Network	Network standard	IEEE802.3u 100BASE−TX
Status indication	Power indication	Yellow lasting on: Power connection is OK
	Data indication	Green lasting on: Data connection is OK
	RJ45 indication	Green flicker: Data transmission is OK Yellow on: PoE is OK
Protection	ESD	Contact discharge: Level III Air discharge: Level III Execute：IEC61000−4−2
	Lightning protection	Level III Execute：IEC61000−4−5
Operating Environment	work temperature	-10℃~55℃
	Storage temperature	−40℃~85℃
	Humidity(Non-condensin)	0~95%
Mechanics	Dimension (L×W×H)	113mmX45.5mmX29mm
	Material	ABS plastics
	Color	Black
	Weight	SV piece device 58g IPC piece device 58g

Product are subject to change without prior notice.

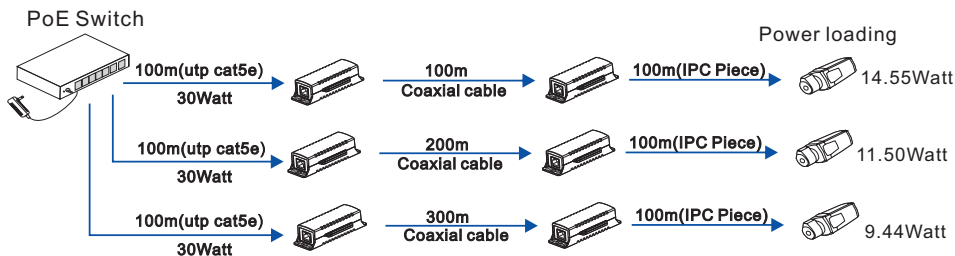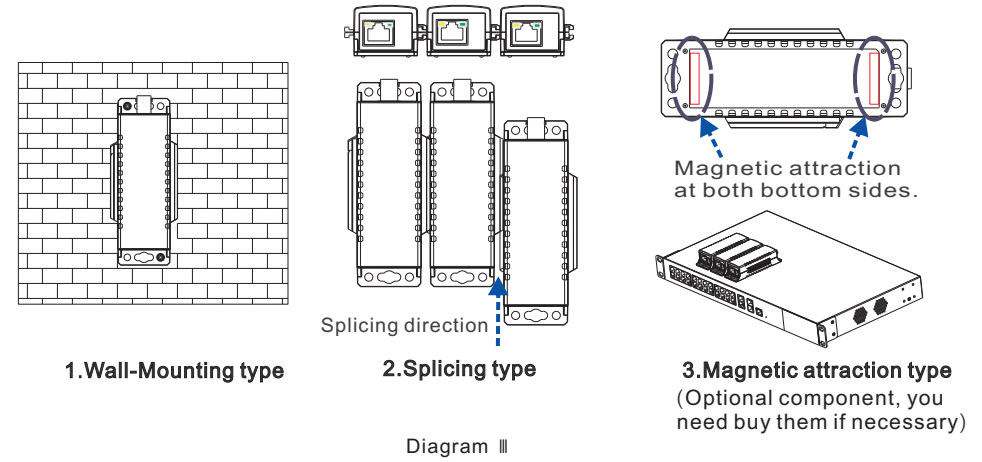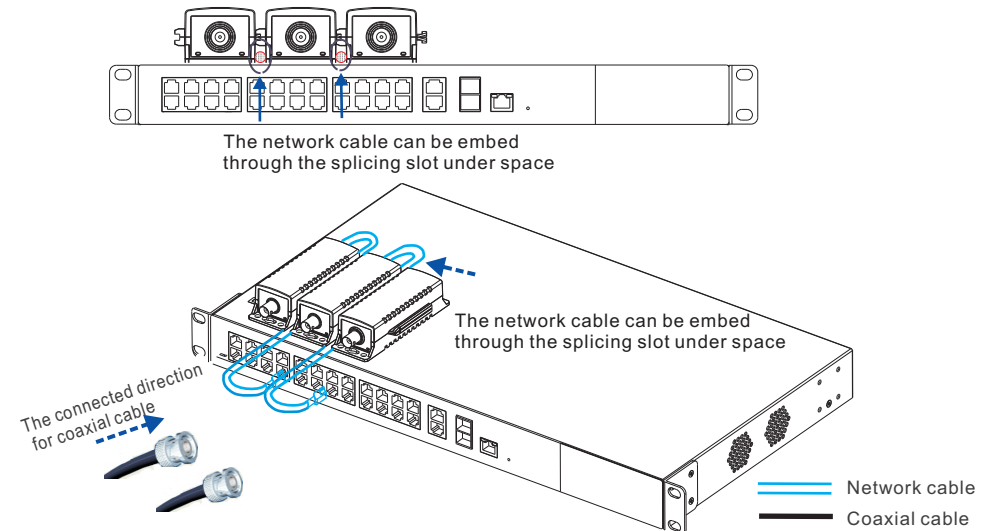**Distributive relation between power consumption and transmission distance**

PoE Switch

100m(utp cat5e)
30Watt

100m(utp cat5e)
30Watt

100m(utp cat5e)
30Watt

100m
Coaxial cable

200m
Coaxial cable

300m
Coaxial cable

100m(IPC Piece)

100m(IPC Piece)

100m(IPC Piece)

Power loading

14.55Watt

11.50Watt

9.44Watt

Diagram Ⅱ

■ Installation method

Magnetic attraction at both bottom sides.

Splicing direction

1.Wall-Mounting type　**2.Splicing type**　**3.Magnetic attraction type**
(Optional component, you need buy them if necessary)

Diagram Ⅲ

■ Network cable collating

The network cable can be embed through the splicing slot under space

The network cable can be embed through the splicing slot under space

The connected direction for coaxial cable

Network cable
Coaxial cable

■ Troubleshooting

If any trouble in installation, please follow these steps:

● Please make sure you have followed the instruction to install the device;
● Please confirm if the RJ45 cable order is in accordance with the EIA/TIA568A or 568B industry standards;
● The 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 proper one to check if the device is broken;
● If the problem still exists, please contact the dealer.