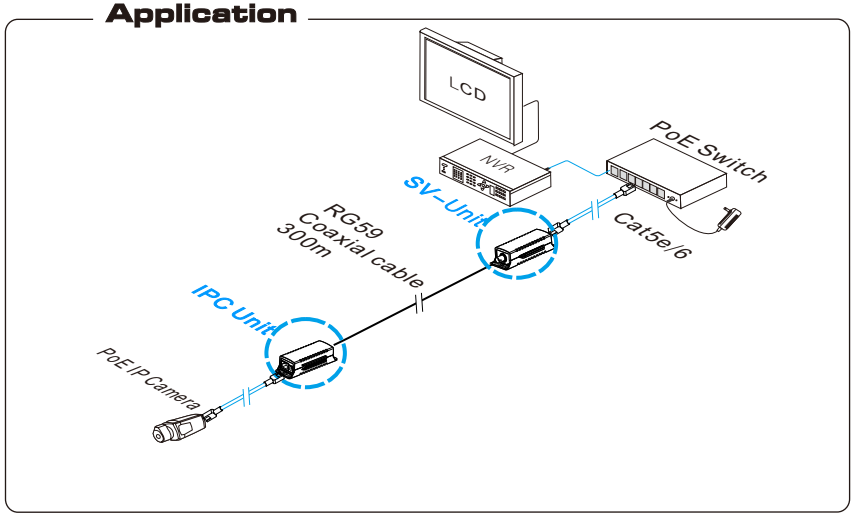
PoE Ethernet Extender
User Manual

The product is an Ethernet extender which can transfer Ethernet signal and power by UTP cable or coaxial cable. It consists of SV unit and IPC unit. 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

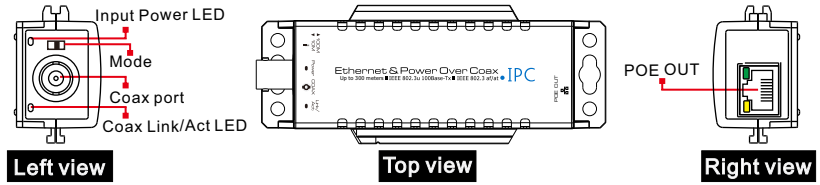
- Using a single coaxial cable to transmit bidirectional Ethernet signals and power, the transmission distance of up to 300m (100Mbps) ,500m(10Mbps);
- Support IEEE802.3, IEEE 802.3u, IEEE 802.3af, IEEE 802.3at standard;
- Differential mode 4KV lightning protection design, greatly improving equipment stability;
- 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

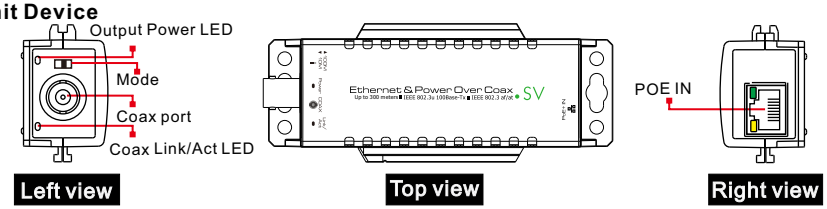
1) Please use RG59 or above coaxial cable and Cat5e/6 cable to reach the longest transmission distance;
2) Please use the standard coaxial connector to avoid abnormal display.

Panel Diagram

IPC Unit Device



SV Unit Device



100Mbps mode: the IPC and SV unit's Mode switch must at the 100M;
10Mbps mode: the IPC and SV unit's Mode switch must at the 10M;
If the IPC unit and SV unit are not the same mode status,they can not work!

Installation steps

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

● Ethernet Extender(SV unit)	1 PC
● Ethernet Extender(IPC unit)	1 PC
● User Manual	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) SV unit:The RJ45 port is connected with PoE switch(PSE device) by cat5E/6, and the Coax port is connected by coaxial cable;
3) IPC unit:The RJ45 port is connected with PoE camera(PD device) by cat5E/6, and the Coax port is connected by coaxial cable;
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 working.

Specification

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

Item		Description
Power	Power Supply	SV unit: Powered by PSE device; IPC unit: Powered by coax from SV unit
Connetor	Port	BNC, RJ45
	Transmission distance	UTP cable:0~100m; Coaxial cable：0-300m(Recommend)
	Media	RG 59 or above coaxial cable & Cat5e/6
Network Switch	Network standard	IEEE802.3,IEEE802.3u、IEEE802.3a、IEEE802.3b
Status indication	Power indication	Yellow on: Power connection is OK
	Data indication	Green on: Data connection is OK
	RJ45 indication	Green flicker: Data transmission is OK; Yellow on:Power is OK
Mode	10Mbps 100Mbps	Camera-side and server-side speed dial switch must be set to 10M or 100M at the same time, the network signal transmission distance can reach 300 meters
Protection	ESD	Level III Contact discharge Level III Air discharge Execute：IEC61000-4-2
	Surge protection	4KV Execute：IEC61000-4-5
Operating Environment	Work temperature	0℃~40℃
	Storage temperature	-40℃~85℃
	Humidity(Non-condensin)	0~95%
Mechanics	Dimension (L×W×H)	113mmX45.5mmX29mm
	Material	ABS
	Color	Black
	Weight	SV unit: 58g IPC unit: 58g

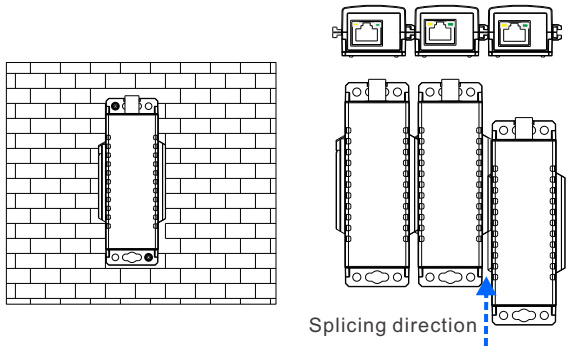
Specifications are subject to change without prior notice.

Troubleshooting

If any trouble in installation, please follow these steps:

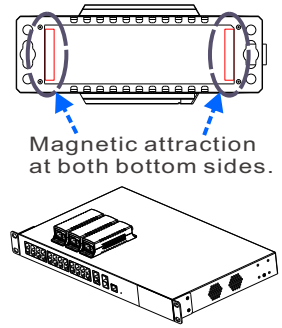
- Please make sure you have followed the instruction to install the device;
- Please confirm if the RJ45 cable order is in accordance with the EIA/TIA568A or 568B industry standards;
- The transmission distance depends on the signal source and cable quality, please do not exceed the maximum transmission 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.

Installation method



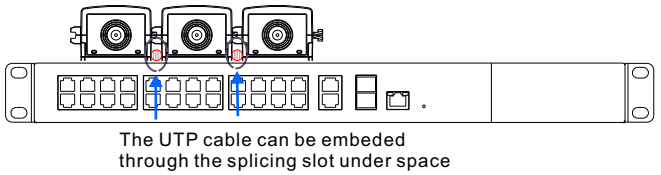
1.Wall-Mounting type

2.Splicing type



3.Magnetic attraction type
(Optional component, you need buy them if necessary)

Network cable collating



The UTP cable can be embeded through the splicing slot under space

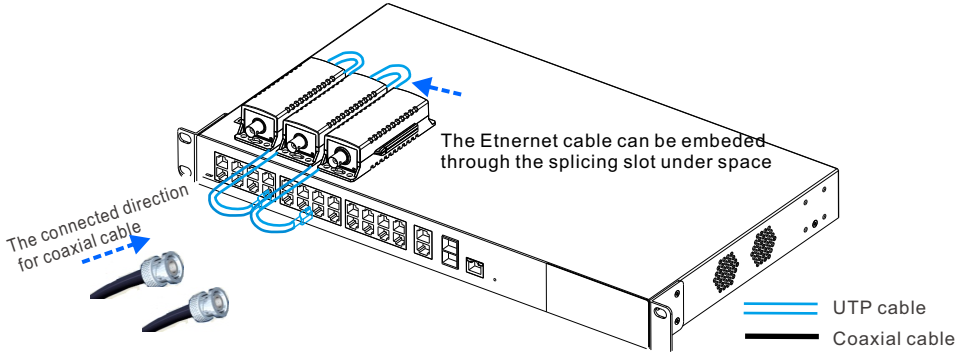


Table1: The coax cable length and PoE power output

Coax length(m)	Rate(Mbps)	PoE power output(W)
100	100	20.0
200	100	17.5
300	100	15.2
400	10	12.7
500	10	10.3