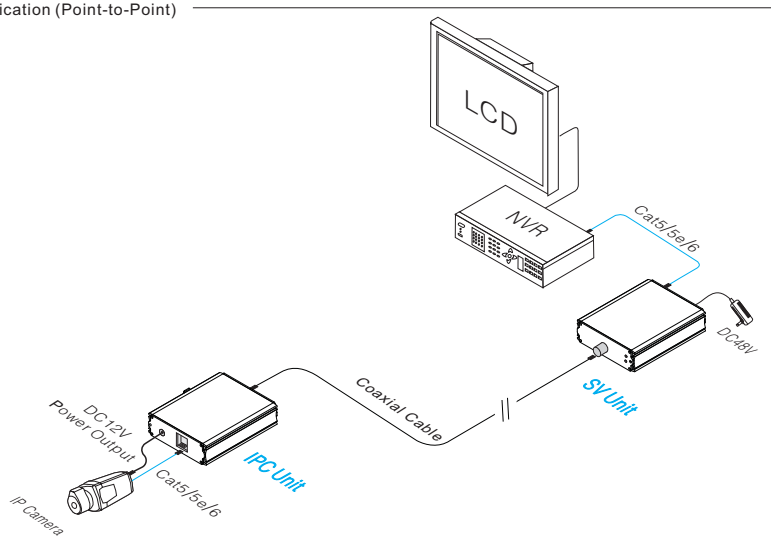
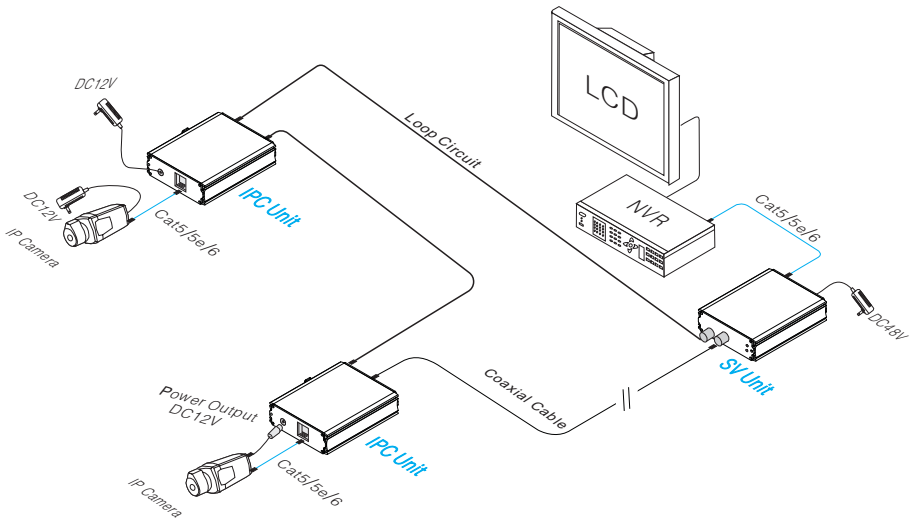
Ethernet Extender

This Ethernet extender is consisted of SV–Unit and IPC–Unit which can use in pair or one–to–many. It uses coaxial cable or other kind cable to transfer Ethernet signal and power, and power for cameras and other devices. This product is very suitable for long distance transmission of Ethernet signal and power. It can be used in security network video surveillance.

Application (Point-to-Point)



Application (Point-to-Multi Point)



Feature

- Use coaxial cable to transmit Ethernet signal and power, maximum distance up to 2km;
- 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 still can 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 .

Notice

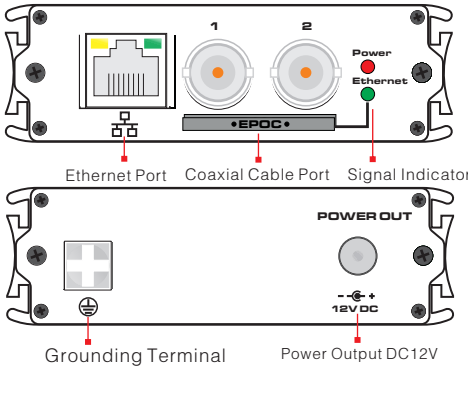
1)Transmission distance is related to the connecting cable. To get better transmitting image, please use standard coaxial cable or Cat5/5e/6 cable.

2) The network rate decreases with increasing of transmission distance;

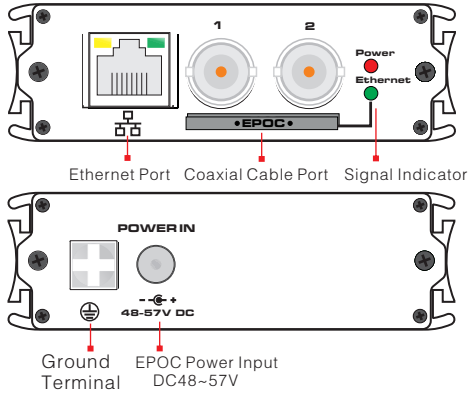
3) When point–to–multi point, the maximum speed rate is 100Mbps, pleas don't connect with too many IPC Units.

Board diagram

IPC Unit



SV Unit



Installation steps

Please check the following items before installation. If any missing, please contact the dealer.

- Ethernet Extender–IPC Unit/Ethernet Extender–SV Unit 1pc
- Power Adapter 1pc
- Hanger 2pcs
- BNC Connector 2pcs
- User Manual 1pc

Please follow the following steps

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 SV's RJ 45 port and NVR;
4) Use telephone cable or UTP cable/Coaxial cable to connect with IPC and SV'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.

Specification

Item		Description
Power	Power Supply	SV: Power adapter; IPC: Powered by SV Unit through Coaxial Cable
	Voltage Range	DC48V–57V
	Consumption	Whole machine < 10W, other consumption for EPOC power output
	EPOC Power Voltage	48V–57V (IPC Unit without this input)
	IPC Unit Output Voltage	DC12V
Ethernet Port	Ethernet Port	EPOC Port: Use coaxial cable to transmit Ethernet signal and power Ethernet Port: 10/100Mbps
	Transmission Distance	EPOC Port ues Coaxial Cable: Maximum 2km, transmission rate decreases with increasing of transmission distance; Ethernet port use Cat5\5e\6: 100m
LED Status Indicator	Power	1 (Red)
	EPOC Ethernet	1 (Green)
	RJ45 Ethernet	1 (Green), 1 (Yellow) Indicat Link/act
Protection	ESD	1a Contact Discharge 3 Level 1b Air Discharge 3 Level Per: IEC61000–4–2
Environmental	Working Temperature	–40℃~70℃
	Storage Temperature	–40℃~70℃
	Humidity (Non–condensing)	0~95%
Mechanical	Dimension (L×W×H)	82mm×100mm×25mm
	Material	Aluminum
	Color	Black
	Weight	IPC:180g; SV:180g
Stability	MTBF	>30000h

Product are subject to change without prior notice

Trouble Shooting

Please find the following solution when the device doesn't work

- 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 exist, please contact the factory.

RJ 45 Making Method

Instruments to be used: wire crimper, network tester. Wire sequence of RJ45 plug should conform with EIA/TIA568A or 568B.

1) Shuck off about 2cm long the insulating layer, and bar the 4 pairs UTP cable;
2) Depart the 4 pairs UTP cable and straighten them;
3) Line up the 8 pieces of cables per EIA/TIA 568A or 568B;
4) Cut out 1.5 cm cable wrap and leave the bare wire;
5) Plug 8 cables into RJ45 plug, make sure each cable is in each pin;
6) Then use wire crimper to crimp it;
7) Follow the 5 steps above to make the another end, following the same sequence of the first plug;
8) Using network tester to test the cable whether is working.

pin	color
1	white/green
2	green
3	white/orange
4	blue
5	white/blue
6	orange
7	white/brown
8	brown

EIA/TIA 568A

pin	color
1	white/orange
2	orange
3	white/green
4	blue
5	white/blue
6	green
7	white/brown
8	brown

EIA/TIA 568B

Notice

- When choose RJ–45 make sure if one end is EIA/TIA568A,the other end should also be EIA/TIA568A.
- When choose RJ–45 make sure if one end is EIA/TIA568B,the other end should also be EIA/TIA568B.