



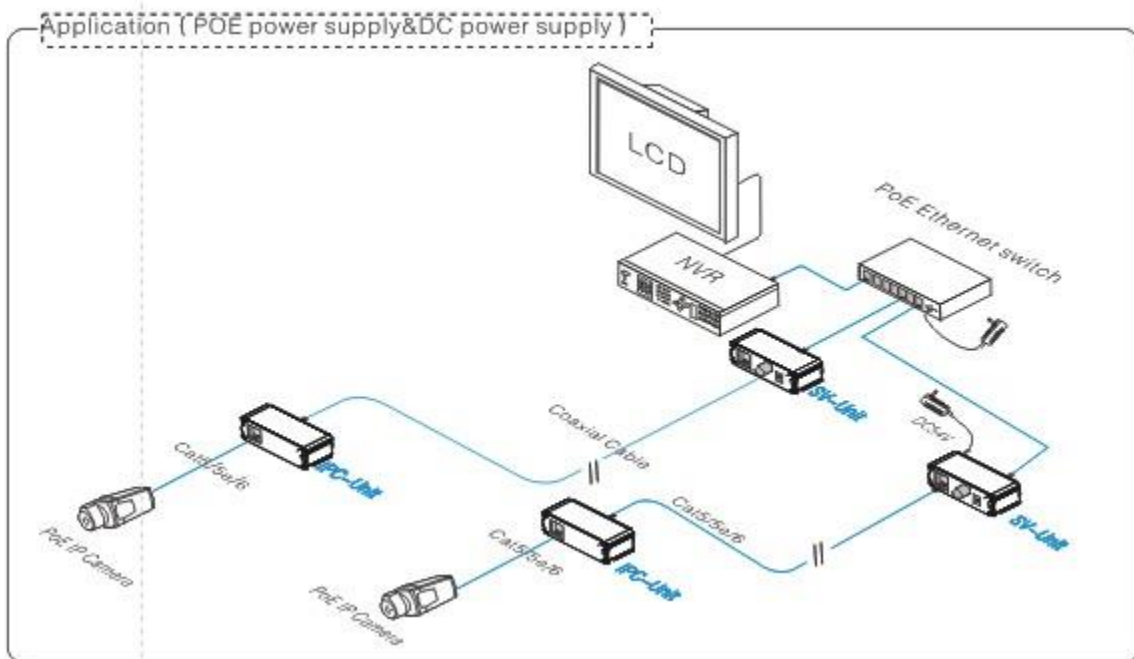
CAIEK01

User Manual



Extender

This Ethernet extender consists of one Transmitter-Unit and one Receiver-Unit. It can transfer Ethernet signal and power synchronously to extend signal though coaxial cable or network cable over a distance of 500m. The transmitter could be powered with 54V DC or PoE. It is widely used in coaxial cable and network cable mixed wiring security surveillance and network rebuilding project.



Feature

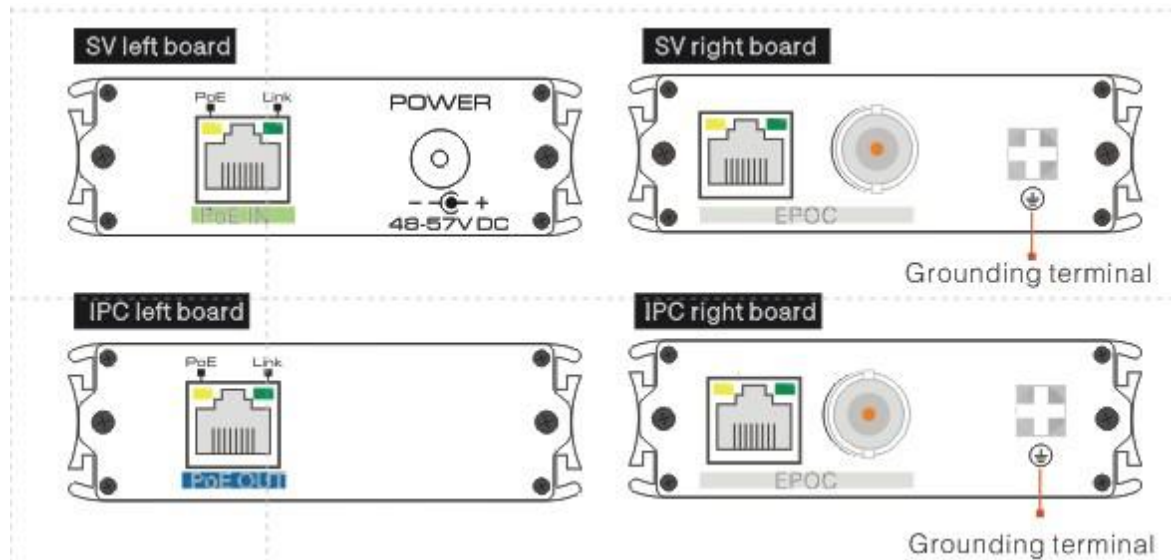
- 1) The equipment consists of two parts: Transmitter unit (called SV) and Receiver unit (called IPC). Transmitter has 48-57V DC port, one PoE input port and two output ports: BNC and RJ45; Receiver has two input ports: BNC and RJ45, one PoE output port
- 2) Extend signal and power up to 500m though coaxial cable or 400m though network cable
- 3) Ethernet delay less than 1ms; meet point to point application
- 4) Standard: IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX, IEEE802.3af/at
- 5) Protection: excellent circuit isolation protection, superior product anti-thunder, anti-static and anti-interference ability
- 6) Appearance: solid and delicate, meet MIT rack installation standard, working temperature: 0°C ~ 55
- 7) Installation: Plug-and-play, no setting required



Notice

Please use 75-5 standard or above coaxial cable and Cat5e/6 cable to get the longest transmission distance!

Board diagram



Description

LED Status	POE IN/POE OUT RJ45		EPOC RJ45
	Yellow Light	Green Light	Yellow /Green Light
Flash	/	Indicate communicating	/
On	Indicate POE output,DC power supply	Indicate cable connecting	Indicate cable connection normal

■ Installation steps

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

Ethernet Extender	1 pc
MIT Hangers	2 pcs
User Manual	1 pc

Please follow below the installation steps:

- 1) Please turn off the signal source and the device's power, installation with power on may damage the device;
- 2) Check if the network cable and other transmission line that will be used is not occupied by other device;
- 3) Use a network cable to connect PoE IN port of transmitter and PoE Ethernet switch (if it's not PoE equipment, then need to use 48-54v power adapter), use another network cable or coaxial cable to connect EPOC port of transmitter and EPOC port of receiver;
- 4) Use a network cable to connect IP camera with PoE out port of receiver;
- 5) Check if the installation is correct; make sure all the connection are reliable and power up the system;

Specification

Item		Description
Power	Power Supply	PoE power supply or power adapter supply
	Voltage Range	DC 48V ~57V
	Consumption	< 2W
Ethernet Port Parameter	Ethernet Port	EPOC: 0--100Mbps Ethernet: 10/100Mbps Transmission bandwidth changes with transmission distance, please refer to table 1
	Transmission Distance	EPOC Coaxial Cable: 0-500m EPOC Network Cable: 0-400m
	Transmission Medium	75-5 Above Coaxial Cable and Cat5e/6
	PoE Agreement	Support IEEE802.3af, IEEE802.3at
	PoE Power Supply	Support End-span and Mid-span
Ethernet Exchange	Ethernet Standard	IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX
	Ethernet Delay	< 1ms
Status	Indicator LED	PoE IN/OUT Port: One indicates PoE power supply or DC power status(RJ45 yellow), one indicates Ethernet signal transmission(RJ45 green); EPOC Port: indicates signal transmission(RJ45 yellow/green)
Protection Level	ESD	1a Contact Discharge level 3 1b Air Discharge level 3 Per: IEC61000-4-2
	Communicating Port Anti-thunder Protection	Per: IEC61000-4-5 level 3
Operation Environment	Working Temperature	0°C~55°C
	Storage Temperature	-40°C~85°C
	Humidity(No-Condensing)	0~95%
Mechanical	Dimension(L x W x H)	63.2mm x 82mm x 25mm
	Material	Aluminum
	Color	Black
	Weight	IPC:153g; SV:154g
Stability	MTBF	>30000h

Product is subject to change without prior notice.

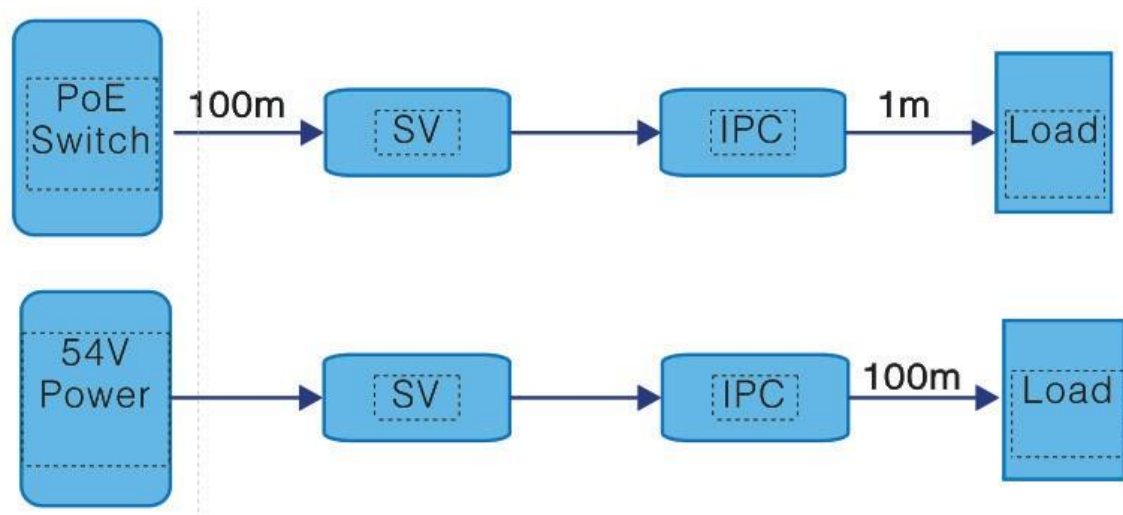
■ **Trouble Shooting**

- 1) Please check if the RJ45 cable order is in accordance with the EIA/TIA568A or 568B industry standards
- 2) The maximum transmission distance depends on the signal source and cable quality; please do not exceed the maximum transmission distance
- 3) Please replace a failure device with a proper one to check if the device is broken
- 4) If the problem still exists, please contact the factory

Table 1

Power Supply		PoE Ethernet Power Supply		54V DC Power Supply	
SV<-->IPC Cable		75-5	CAT5E	75-5	CAT5E
100m	Bandwidth (Mbps)	92.6	91.2	92.6	91.2
	Load Capacity (W)	16.1	17.2	23	23
200m	Bandwidth (Mbps)	91	84.2	91	84.2
	Load capacity (W)	10	12	17	22
300m	Bandwidth (Mbps)	90.8	74.5	90.8	74.5
	Load Capacity (W)	8	9.1	12	16
400m	Bandwidth (Mbps)	90.5	55.7	90.5	55.7
	Load Capacity (W)	5	6.5	10	12
500m	Bandwidth (Mbps)	83.7	/	83.7	/
	Load Capacity (W)	4.5	/	8	/

Picture 1



Description:

The test data in table1 gained through the test method in Picture 1