Ethernet / PoE Extender Kit Over Coax or CAT5

GRMPOEOC

📖 Quick Start Guide

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The Genie GRMPOEOC is an ethernet extender designed to transmit and receive ethernet and PoE over Coax or CAT5 (using HD baluns). GRMPOEOC is supplied as a pair (SV and IPC) as well as with 2 fixing brackets and 2 HD baluns.
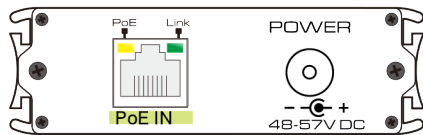
Features

- Consists of two parts, SV-Unit and IPC-Unit
- Transmits ethernet signal and PoE signal up to 500m on coaxial cable
- Transmit ethernet signal up to 400m through network cables
- Ethernet delay less than 1ms, point to point application
- Standard: IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX, IEEE802.3af
- Circuit isolation protection
- MIT Rack mountable
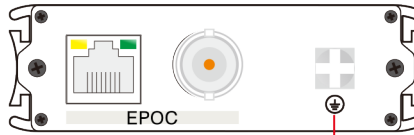- Plug and play, no setting required

Specifications

Category	Parameter	Value
Power	Power Supply	PoE power supply or power adapter supply
	Voltage Range	DC48V~57V
	Consumption	<2W
Ethernet Port	Ethernet Port	EPOC: 0–100Mbps Ethernet: 10/100Mbps Transmission bandwidth changes with transmission distance, see table 1
	Transmission Distance	EPOC Coaxial Cable: 0–500m(Max) EPOC Network Cable: 0–400m(Max)
	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 Standard	IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX
	Ethernet Delay	<1ms
Others	LED Status Indicator	PoE IN Port and PoE OUT Port: RJ45 yellow light indicates PoE or DC power status. RJ45 green light indicates ethernet signal transmission EPOC Port: RJ45 yellow/green indicates signal transmission
	ESD Protection	1a Contact Discharge Level 3 1b Air Discharge Level 3 Per: IEC61000–4–2
	Communication Lightning Protection	Per: IEC61000–4–5 Level 3
	Working Temperature	-40°C~75°C
	Storage Temperature	-40°C~85°C
	Humidity (Non-Condensing)	0~95%
	Material	Aluminum
	Dimensions	63.2 × 82 × 25 mm
	Weight	IPC: 153g, SV: 154g

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Board Diagram

SV Right Side

SV Left Side

IPC Right Side

IPC Left Side

Grounding
Terminal
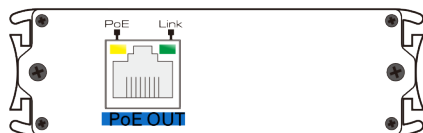
Grounding
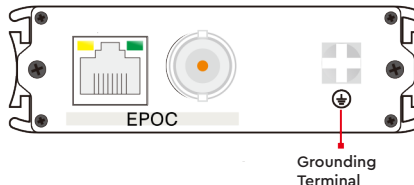Terminal

LED Indicator

Device must be connected with lightning protection grounding; otherwise protection level will reduce. Please use above No.20 wire to connect the grounding terminal.

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

Transmission Distance

Relationship between Single Port power and distance, power divides equally when dual ports work.

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	/

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Installation Steps

Please check the following items before installation.
If anything is missing, please contact dealer.
- 1x GRMPOEOC (IPC Unit or SV Unit)
- 2x MIT Hanger
- 1x User Manual

Please follow the steps as below:
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 occupied by other device.
3. Use a network cable to connect PoE IN port of SV-Unit 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 SV-Unit and EPOC port of IPC-Unit.
4. Use a network cable to connect IP camera with PoE out port of IPC-Unit;
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 normal.
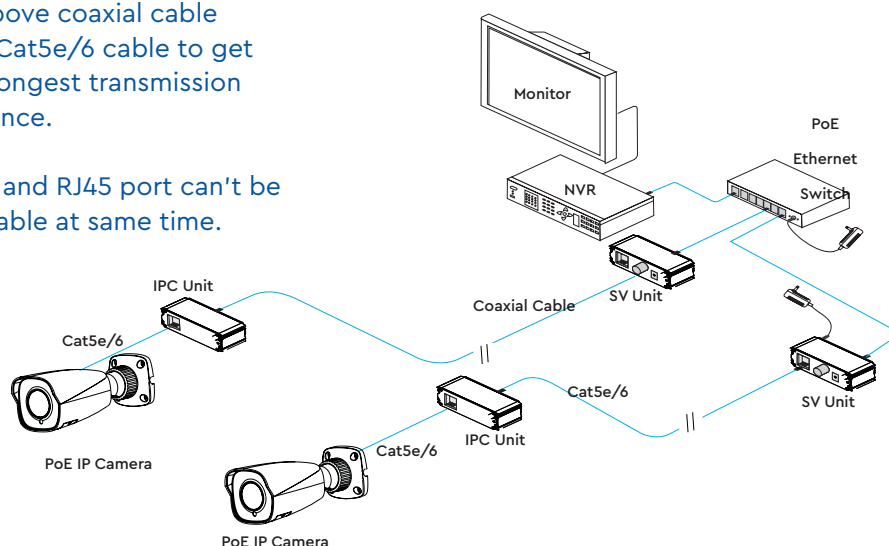
Troubleshoot

Please find the following solution when the device doesn't work:
- 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 maximum 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 normal one to check if the device is broken.
- If the problem still exists, please contact your distributor.

Application

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

BNC and RJ45 port can't be available at same time.

Monitor

PoE
Ethernet
Switch

NVR

IPC Unit

SV Unit

Cat5e/6

Coaxial Cable

Cat5e/6

SV Unit

IPC Unit

Cat5e/6

PoE IP Camera

Cat5e/6

PoE IP Camera

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