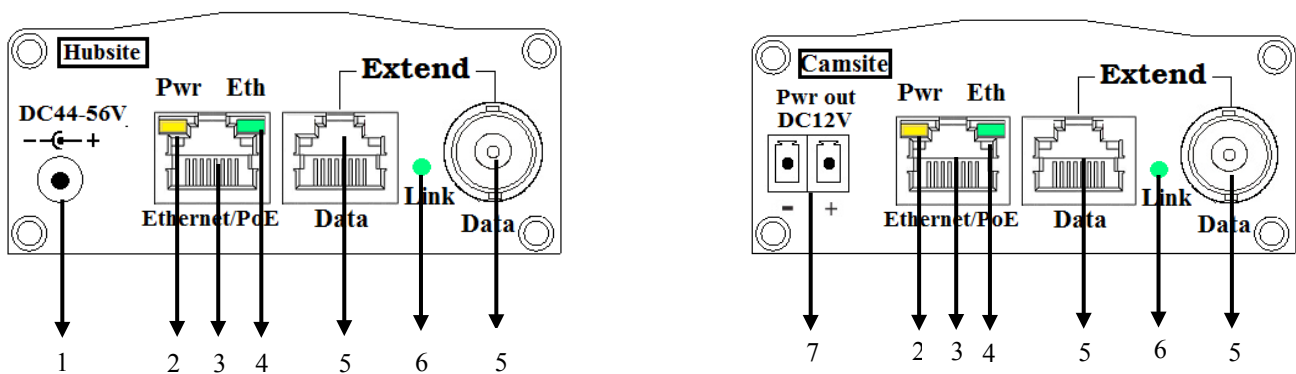


Giga Ethernet/PoE Extender over UTP Cable Installation Guide v1.3

❖ Product Overview:

1. **Power jack:** Plug DC48~56V power adapter. (The EPOC-151VA cannot)
2. **Pwr:** The LED indicates the power status. On: Power on; Off: No power.
3. **Ethernet/PoE:** Giga Ethernet RJ45 connector, attaches to Hub, PC or IP Camera via Cat. 5e, 6 or 7 patch cables.
4. **Eth:** To indicates the Ethernet communication status. Flash: Communicate with Traffic; Off: No connection.
5. **Extend:** RJ45 Female (No LED)/BNC Connector allows 10/100/1000 Base-T Ethernet and PoE power to be transmitted using Cat. 5e (or better) UTP cable with 4 pair wires or RG59 (or better) Coaxial cable.
6. **Link:** The LED indicates the cable link status. The LED will be on after 10 seconds when first connection is success; Off: No connection.
7. **Terminal Block:** Support DC12V power output.



❖ Packing Checklist:

Check the package box the following items are included:

EPoC-151VA x1 pc

EPoC-151PS (or EPoC-151HP) x1 pc

DC power adapter x 1pc

❖ Installation Steps:

Camsite


1. Connect the Hub or IP camera RJ45 connector to the 10/100/1000 Base-T Ethernet port of EPoC-151PS (or EPoC-151HP) using a standard Cat 5e (or better) cable of maximum 100 m (328 feet) in length.
2. Connect one end of the long UTP cable (Cat. 5e or better) the RJ45 (No light) connector or Coaxial cable (RG59 or better) to BNC connector of EPoC-151PS (or EPoC-151HP).

Hubsite

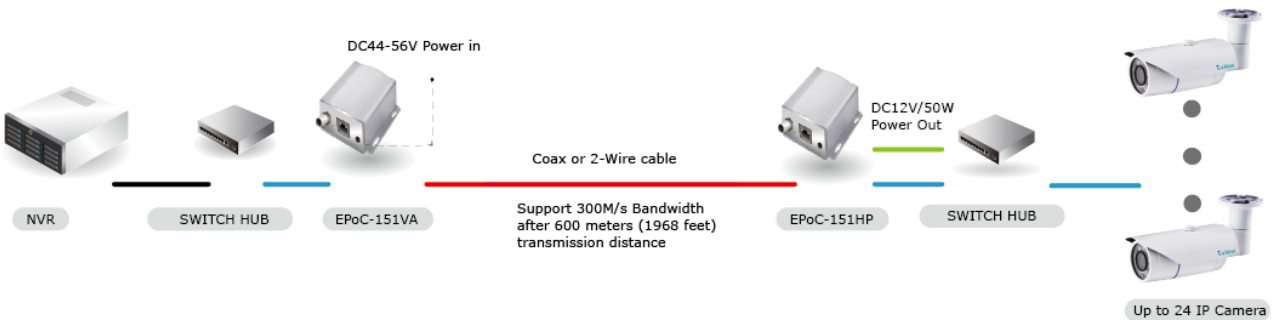
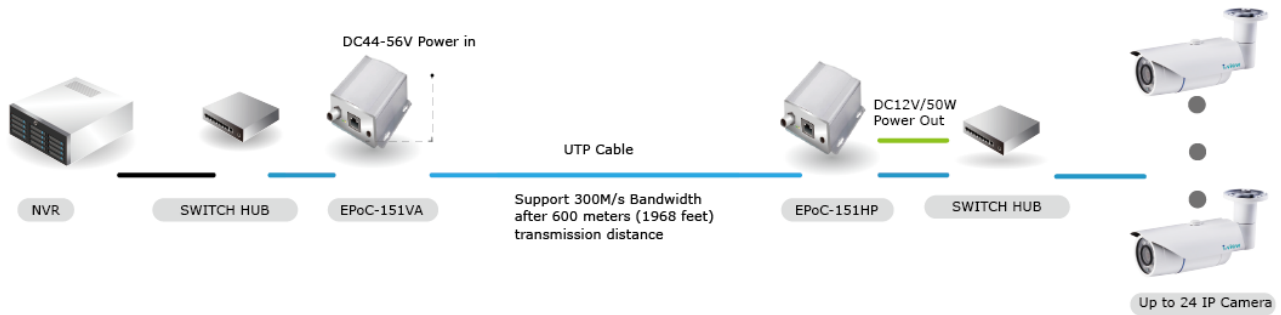
1. Connect the Switch Hub RJ45 connector to the 10/100/1000 Base-T Ethernet port of EPoC-151VA using a standard Cat.5e/6 cable of maximum 100 m (328 feet) in length.
2. Connect one end of the long UTP cable (Cat. 5e or better) the RJ45 (No light) connector or Coaxial cable (RG59 or better) to BNC connector of EPoC-151VA.
3. When the EPoC-151PS (EPoC-151HP) cannot receive power through the Wire cable, please change to DC56V power adapter to EPoC-151VA. Please refer to “**Power Distance VS. Cable Impedance**” table.

❖ Product Application Diagram

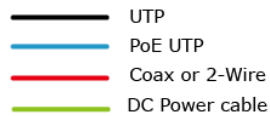
The Ethernet over 2-Wire (Coaxial or UTP) Cable system provides Giga Speed (Upload: 500M/s; Download: 500M/s) Bandwidth and PoE power transmission. It supports virtually any type of Cat. UTP wire or coaxial cable or any 2-Wire, including such as Cat.5, 5e, 6, or 7, RG58, RG6, RG 7 cable. And different wire types can be concatenated together, as needed.

 **To avoid the interference signal, we strong recommend using the Cat. STP cable (or Coaxial cable) for Ethernet/PoE signal transmission when there are more 16 pcs EPOC-151VA install at the same Hub site.**

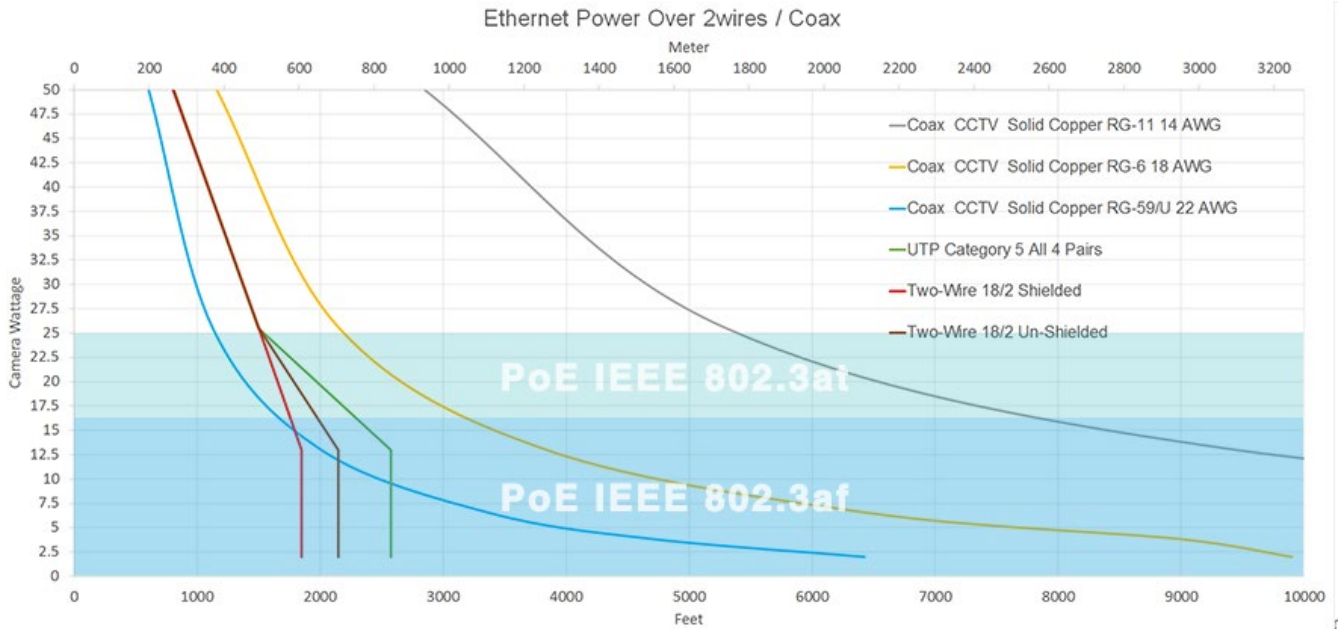
System Diagram



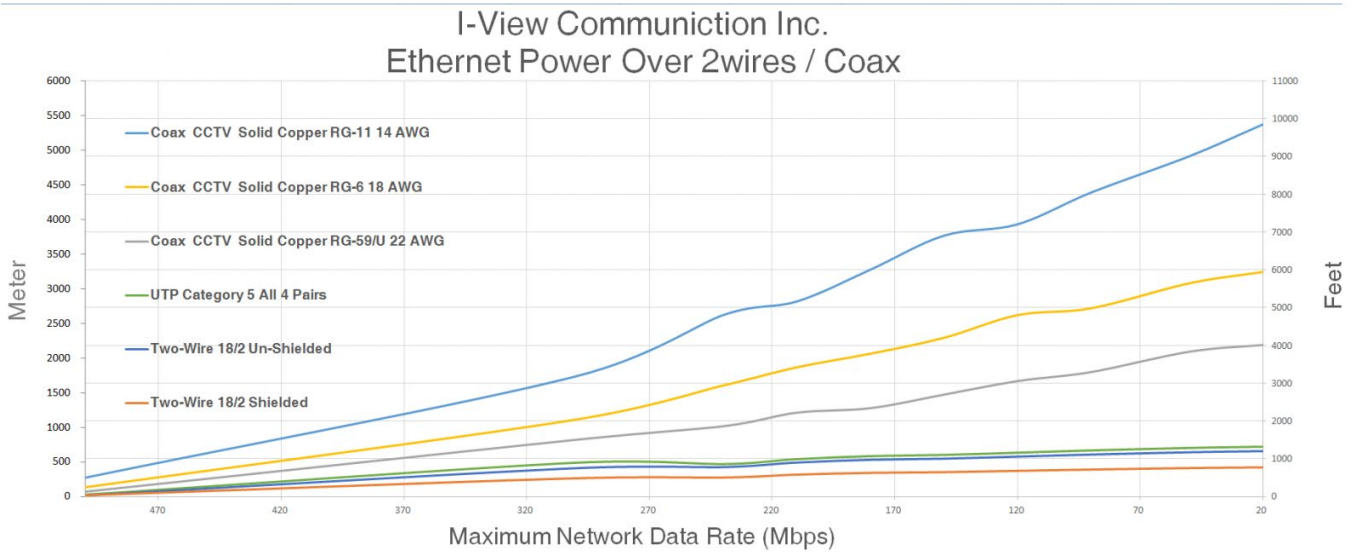
• Long distance transmission cause the wire voltage-drop cannot provide enough power for Switch Hub, plug the DC48V power adapter on EPOC-151PS/151HP to provide power for Hub.



Power Wattage VS. Cable Distance



Data Rate VS. Cable distance



LED Function table

Name	Color	Status	Function
Pwr	Yellow	On	Power is on
		Off	Power is off
Eth	Green	Flashing	Communication is OK with Traffic
		Off	No communication
Link	Green	On	Connection is OK; (It takes 10 sec. for LED on)
		Off	No connection

◇ Specification:

ITEM \ MODEL	EPoC-151VA	EPoC-151PS	EPoC-151HP
Ethernet			
Connector	RJ-45	RJ-45	RJ-45
Connectivity	10/100/1000 Base-T auto-negotiation, auto MDI / MDX crossover		
Wire type	Cat5 or better		
Distance	Up to 328 feet (100m)		
Cable Link			
Connector	RJ-45/BNC		
Type	Receiver (NVR Site)	Transmitter (Hub/IP Camera Site)	
Wire type	Coax, single- or multi-pair UTP, 18/2, or STP wire		
Distance ¹	Up to 1500 Meters; Please refer to Data Rate VS. Cable distance table		
Topology	Supports Star, Daisy-Chain, or any combination		
Encryption	128-bit AES		
Latency	3 ms		
Bandwidth [*]	500 Mbps Bi-Direction; with dynamic bandwidth allocation		
Power			
Power Source	DC44~56V adapter	None	None
Power Output	-	12W (DC12V/1A)	48W (DC12V/4A)
Physical			
Waterproof	None	None	None
Dimensions (mm)	128 x 102 x 36	128 x 102 x 36	128 x 102 x 36
Weight	310g	310g	310g
LEDs			
Status indicators	Cable link Ethernet Power Ethernet link/activity	Cable link Ethernet Power Ethernet link/activity	Cable link Ethernet Power Ethernet link/activity
Environment			
Temperature	Operation: 0°C to 50°C / 14°F to 122°F		
Humidity	20% ~ 85% non-condensing		
Power consumption	≤ 3W		
Transient immunity	20μS x5 3,000A, 6,000V; ESD 20KV, 200pF		

* Distance and number of devices supported may be lower due to power supply capacity and wire voltage-drop.

The bandwidth is dynamically allocated (shared based on traffic), and decreases with wire distance.