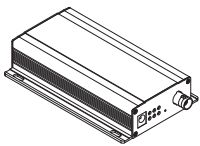# INTERCOAX
N E T W O R K

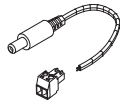# Quick Start Guide

ECP-2701 Series

Please read carefully the instruction manual before use. Contents of this manual are subject to change without prior notice for reasons such as functionality enhancements.

[Rev.4.0]

Package
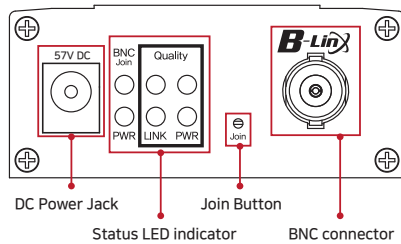

ECP-2701 / ECP-2701NP

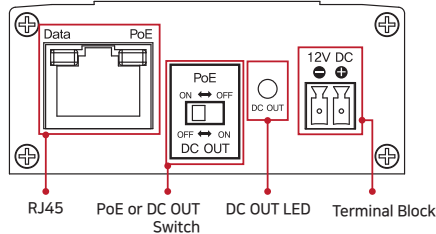DC Cable & DC Terminal Block

Quick Start Guide
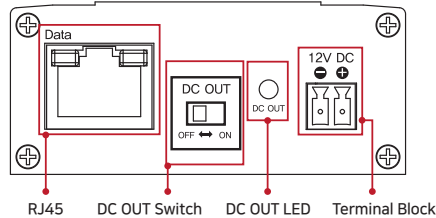
Hardware Overview

Right

ECP-2701
ECP-2701NP

- DC Power Jack
- Status LED indicator
- Join Button
- BNC connector

Left

ECP-2701

- RJ45
- PoE or DC OUT Switch
- DC OUT LED
- Terminal Block

Left

ECP-2701NP

- RJ45
- DC OUT Switch
- DC OUT LED
- Terminal Block

LED Indicators

Indicator		Color	Function
BNC Join		🟩	EoC Devices connected
PWR		🟦	57V DC input connected
Quality	LINK	🟩	Good data connection
		🟥	Poor data connection
	PWR	🟩	Good power supply condition
		🟥	Additional adapter required
Data		🟩	Flashes when data is transferred
PoE		🟨	PoE power supply status
DC OUT		🟩	DC OUT switch is ON

Overview

This device is a High-Speed, long distance Ethernet & PoE extender that makes possible to transmit IP data up to 2.4Km and PoE up to 1.2Km through various analog cables in different situations.

It is cost-effective and time saving solution to migrate existing analog system to IP based system since ECP-2701 supports easy installation utilizing the existing CCTV cable (Coax, UTP, 2wire & Etc.).

With long distance transmission feature, the device makes to overcome 100 meters distance limitation easily and reduces the construction cost significantly compared with fiber optic configuration.

Features

- Ethernet over coax (UTP, 2-Wire) communication following IEEE1901 Standard
- Data + Power over Coax (or UTP, 2-wire)
- Data distance up to 2.4Km
- PoE distance up to 1.2Km
- Gigabit Bandwidth
- 10/100/1000 Full Duplex
- 128bit AES network encryption
- Supports Multi-connection (Daisy chain, Star, etc.)
- PoE, PoE+, Extra PoE (Max. 60W output)
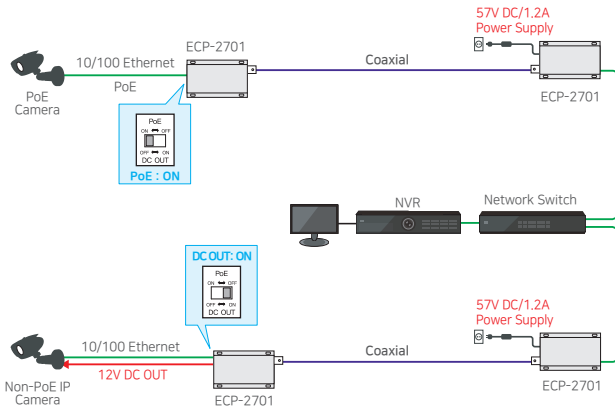 - ➜ ECP-2701NP does not support PoE output
- Supports UTP, Telephone (2 Pairs), 2-Wire cable communication (Using BTE Series)
- Quality LED (Data & Power)
- Plug & Play
- Surge Protection
- 12VDC output (for Non-PoE Camera)

Installation Guide

1. Set the IP address on the camera following the instruction manual of the camera.
   - ➜ If the camera IP is automatically assigned (DHCP, etc.), there is no need to set the camera IP separately.
2. Connect BNC of the coaxial cable to each **ECP-2701**.
3. Connect DC power to **ECP-2701** first and then to AC outlet.
   - ➜ In case of 7W camera, the device supports long distance PoE transmission up to 1200m over RG6 coaxial cable. PoE transmission distance can be varied depending on cable type and Camera's power consumption(W).
   - ➜ Please download full manual for more information about PoE distance by various cables.
4. When they are correctly connected, PWR/BNC Join/Quality PWR LED are on.
5. Fix up **ECP-2701** where it should be placed.
6. Connect the UTP(LAN) cable between **ECP-2701** and NVR first and then between **ECP-2701** and camera.
   - ➜ **ECP-2701** is recommended for camera side and **ECP-2701NP** is recommended for NVR/Switch side.
7. Turn on the PoE switch on **ECP-2701** for PoE IP camera. Turn off(DC OUT ON) for non-PoE camera and connect DC Cable between camera and Terminal Block on ECP-2701.
   - ➜ **ECP-2701** send data and power together via BNC connector.
   - ➜ Mind the polarity (+/-) and tie up DC cable on the terminal block.
8. Ping test is recommended to confirm the whole network after installation.
9. Check the video signal on the monitor.

How to change the communication password (Coax, UTP, 2-Wire)

All Intercoax EoC converters have the same password as factory defaults setting value and can be used immediately when connecting to the product (Plug & Play mode).

However, if a number of products are mixed in the same area or the signal transmission line is in poor condition, the communication passwords for each equipment (or group) can be set differently to prevent cross-talk between the lines.

1. **Needed items for Joining**

   EoC Converters / Power supply / Short Cable (Coax, UTP, 2-Wire) / Paper clip

2. **Product configuration**

   a. Connect EoC Converters with Coax cable (or UTP, 2-Wire) and power to the one of the converters up with power supply.

   b. Check if the Power LED on both devices is ON.

3. **Remove the existing password (Unjoining)**

   This process removes passwords that are entered as factory defaults.

   a. Press the Join button on one of the connected products using a paper clip until the Power LED turns off and on (Approximately 15 seconds)

   b. Remove the existing password by pressing the Join button on the opposite product in the same way as above.

   c. Join LED will be turned off if the password on the devices is removed correctly.

4. **Create New Password (Joining)**

   New password for communication between connected devices is created and this will block the communication with other devices (or group) which have a different password.

   a. Press the Join button for 2 seconds on one of the connected product using a paper clip and the Join LED of the device will flicker at a constant speed. (Stand-by mode)

   b. Press the Join button for 2 seconds on the opposite device in the same way as above. And then, the Join LED of the device flickers at a constant speed and both devices restart at the same time.

   c. Then the Join-Link lights up and communications are resumed between the products

5. **When adding new products in 1:N configuration to a group that has already been joined. (Group Joining)**

   a. Connect new device to the group which is already joined. (using T-BNC or Y-UTP coupler, Terminal block)

   b. Remove the password of the new device in the same way as step '3-a'.

   c. Press Join button on the one of the device of the existing group for 2 seconds and Join LED flickers at a constant speed.

   d. Press Join button on the new device for 2 seconds and new device restarts

   e. Join-Link lights up and communications are resumed between the products.

Specification

Model		ECP-2701 Series : 1 Port Transceiver
Interface	Coax	1 x 75Ω BNC (Female) - Ethernet over Coax (B-LinX)
	Ethernet	1 x RJ45 - 10/100/1000 Base-T with Auto-detect MDIX
Transmission Distance	Ethernet	up to 2.4Km(RG-6)
	PoE (PoC)	up to 1.2Km (RG-6 / 7W camera)
LED Indication	Ethernet	1 x Data(Green) / 1 x PoE(Yellow)
	EoC	1 x BNC Join(Green)
	Power	1 x PWR(Blue)
	Link Quality	1 x Good(Green) / 1 x Bad(Red)
	Power Quality	1 x Good(Green) : 40V~57V / 1 x Bad(Red) : 40V Under
	12VDC out	1 x 12V DC OUT(Green)
Encryption		128-bit AES
Power	Input	B-Linx or DC12V~ 57V
	PoE Output	Support PoE (15W), PoE+ (30W), Extra PoE up to 60W *ECP-2701NP does not support PoE
	DC Output	DC12V / 2A
Mechanical	Dimension	132(L) x 83(W) x 28(H)mm
	Weight	198g
Environment	Operating Temp	–20 ~ 60°C
	Storage Temp	–30 ~ 80°C
	Relative Humidity	10% ~ 90%
Compliance	Certification	FCC, CE, KC, RoHS
	Surge Protection	IEC 61000-4-5 4kV(1.2 / 50us), 2kA(8 / 20us)
Optional Accessories		57VDC / 1.2A External Power Supply

Caution

· Please install the device following the installation guide.
· Do not touch the device and cable with wet hands.
· Keep away from moisture and shock.
· Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus that produce heat.
· Indoor use only.
· Do not use for other purposes.
· Do not disassemble or modify this device.
· Do not put any sticker or paint on it.
· If this device is defective or malfunctioning, please unplug the power adapter immediately and contact dealer or service center.
· Please use the rated power supply for the product.
· Connect DC power to this device first and then to AC outlet.

Warranty

· This device has passed the quality control and product inspection.
· Please install and use according to the installation guide.
· The warranty period for this product is 24 months from the date of purchase.
· If this device is defective or malfunctioning, please unplug the power adapter immediately and contact dealer or service center.
· Any damages or breakage from user's abuse, accident, modification or natural disasters will not be covered manufacturer's warranty.

This device complies with part 15 of the fcc rules. Operation is subject to the following two conditions :
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received including interference that may cause undesired operation