

Weerbestendige IP PoE Extender

### SC-IPE3001W

# Gebruikershandleiding (E)





SC-IPE3001W



### **Precaution and Safety Guidelines**

The content of this guideline is to protect the safety of users and prevent property damage. Please be sure to read this user's manual thoroughly and use the device correctly.



Warning (If you do not keep any of the below guidelines, you may get

seriously injured or cause somebody's death.)

- Do not bend the UTC cable by excessive force. Make sure the UTC cable is not crushed by heavy things.
  - It may cause fire.
- Do not open the lid arbitrarily as this device has high voltage part inside. Never disassemble, repair or modify it.
  - Abnormal work could result in fire, electric shock, and injury.
- Do not install this product in places with high humidity, dust, or soot.
  - It may cause electric shock and fire.
- Keep the device in a cool place where doesn't let direct sunlight. Keep it at a proper temperature and avoid heating appliances like candle or heater. Also, keep the equipment or tools away from places where people come and go.
- It may cause fire.



Caution (If you do not keep any of the below guidelines, you may get injured or suffer property loss.)

- Avoid installing near strong magnetic fields or radio waves and wireless devices such as radio or TV.
  - Install in a place that is free from magnetic, radio, or excessive vibration.
- Proper ambient temperature and humidity are recommended.
  - Avoid extremely high temperatures(over 50°C) or low(below -10°C), and humid conditions.
- Do not place heavy items on the product or let foreign substances enter inside the device.
  - It may cause failure.
- Install in well ventilated place, and avoid direct sunlight or heat appliance.
- Install at a flat and stable place. Do not use an upright or slanted position.
  - It may not operate properly or might be dangerous due to the fall of the device.
- Strong shock or vibration may cause device failure. Be careful when using the device.
  - Install in a place without severe vibration.
- If you notice any unusual noise or smell, unplug the power supply immediately and contact the place of purchase or service center.
  - There may be a risk of fire and electric shock.
- Rotate the air properly in the system operating room and secure the cover of the main body.
  - It may be the cause of failure by environmental factors.
- Refer the device to the service center and get regular checkup to maintain the performance of the system.

- We are not responsible for any damages caused by user's carelessness.
- UTP(Unshielded Twisted Pair) Cable is for indoor use only. Use a STP(Shield Twisted Pair) Cable which is shielded for outdoor use.
  - Use standard UTP cable such as CAT.5e or above.
- Do not design and configure general network(Internet/indoor) together with CCTV network.
  - It might be the cause of problem.
- Refer to the user's manual for problems or questions besides the above. Contact our service center if you need assistance from a professional technician.

#### 1. Introduction

#### 1-1. Overview

SC-IPE3001W is a waterproof & dustproof type of a 1-channel UTP Ethernet Data + PoE Extender.

With its built-in power supply function (PoE IEEE802.3at), this product supplies power to camera over UTP 1 cable.

To compensate for the short transmission distance of network equipment (shorter than 100m), SC-IPE3001W extends the transmission distance up to 100~250m by installing this product in the UTP cable section between camera and PoE HUB.

Also, it is able to reduce construction costs by supplying PoE to IP camera.

#### 1-2. Features

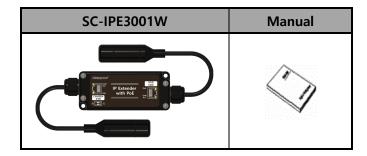
- Transmit power + IP data over 1 UTP Cable(CAT.5e).
- IP67 rate (Waterproof & Dustproof)
- TCP Rate: 100Mbps Full Duplex
- Extend Ethernet Data transmission up to 100~250m by adding 1 pc of SC-IPE3001W. (Add/extend the product after checking the rated capacity of IP camera you use.)
- Auto MDI/MDIX
- Built-in surge protection circuit
- Extend transmission distance by setting bandwidth switch (100Mbps/10Mbps).

100Mbps setting: Transmit up to 100m (CAT.5e)

10Mbps setting: Transmit up to 250m (CAT.5e)

**X** Make sure to turn the power of the product OFF/ON after changing the setting value.

# 2. Components



### 3. Product Parts & Functions



- ① **CAMERA SIDE**: IP PoE camera connection port.
  - Port to supply PoE and receive data from camera.

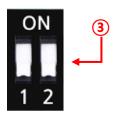
LED	LED Indicator		
Yellow	ON	Successful PoE Input	
	OFF	No PoE Input	
Green	ON	Connected to Camera	
	Flicker	Successful Data Transmission	
	OFF	No Data Transmission	

- ② **NVR SIDE**: NVR or PoE Switch HUB connection port.
  - Port to receive power from PoE Switch HUB / PoE Injector and supply power and data to camera.

LED	LED Indicator		
Yellow	ON	Successful PoE Input	
	OFF	No PoE Input	
Green	ON	Successful LINK connection to NVR or network device	
	Flicker	Successful Data connection to NVR or network device	
	OFF	No LINK connection to NVR or network device	

- **Bandwidth Selector Switch:** Switch for selecting network bandwidth (100Mbps / 10Mbps setting)
  - Able to change the bandwidth by setting the switch as 100Mbps<->10Mbps.

Switch	Transmission Bandwidth	Maximum Transmission Distance
ON	100Mbps	100m(CAT.5e)
OFF	10Mbps	250m(CAT.5e)



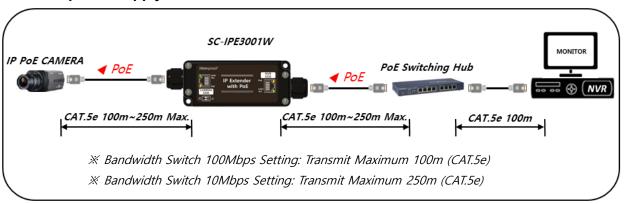
- X Due to the characteristics of the product, the switch is not exposed outside
- **X** To adjust the switch, open the Top Case.

However, after changing the setting value, please turn OFF/ON the product power.

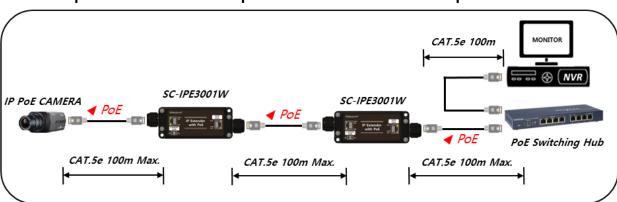
**X** Factory default setting is 100Mbps.

### 4. Application diagram

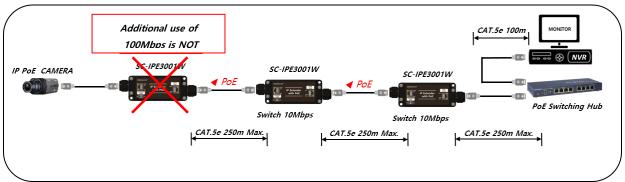
4-1. PoE power supply from the PoE Switch Hub



#### 4-2. Multiple Connections with 2 pcs of SC-IPE3001W at 100Mbps



### 4-3. Multiple Connections with 2 pcs of SC-IPE3001W at 10Mbps



- \* Able to extend as above figure. The max. extension distance may vary depending on the rated capacity of IP camera, characteristics of the cable, and the added SC-IPE3001 quantity.
- \* Network Link-time may be longer as the number of Extenders is increased.
- **X** Setting Bandwidth Switch as 100Mbps: Transmit Maximum 100m (CAT.5e)
- **X** Setting Bandwidth Switch as 10Mbps: Transmit Maximum 250m (CAT.5e)
- **X** If the bandwidth exceeds 10Mbps after setting the Bandwidth Switch to 10M, there may be a problem with the video.

#### **Maximum Power Output in SC-IPE3001W 100Mbps Setting**

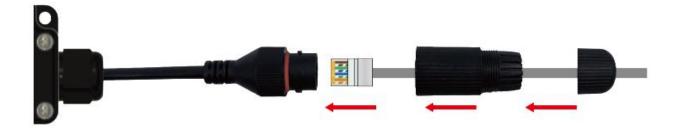
SC-IPE3001W	SC-IPE3001W	Max. Power Output
Power Input	Connection Quantity	100Mbps/100m
	1	14W
Рог	2	10W
PoE	3	6W
	4	3W
PoE+	1	25W
	2	20W
	3	14W
	4	9W

#### **Maximum Power Output in SC-IPE3001W 10Mbps Setting**

SC-IPE3001W Power Input	Maximum Power Output		
	10Mbps/250m		
	SC-IPE3001W x1	SC-IPE3001W x2	
PoE	7W	3W	
PoE+	13W	8W	

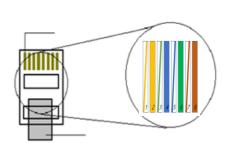
- \* It is not recommended to use 100Mbps and 10Mbps simultaneously when connecting more than 1 pc of SC-IPE3001W.
  - (If you set two different bandwidth settings, the bandwidth is automatically set to 10Mbps.)
- **When connecting a camera of large power consumption or high inrush current, please** use PoE+.

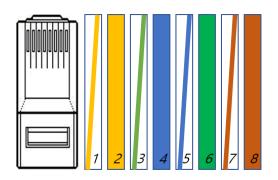
# 5. How to connect cables and waterproof caps



- **X** As shown in the image above, remove the waterproof cap of the product and connect the UTP cable.
- **X** For proper waterproof, be sure to close the waterproof cap tightly.

# 6. CABLE PIN Array





No.	Color	Color		Function
1	Orange + White	White	Orange	TX+
2	Orange	Orange		TX-
3	Green + White	White	Green	RX+
4	Blue	Blue		PWR+
5	Blue + White	White	Blue	PWR+
6	Green	Green		RX-
7	Brown + White	White	Brown	PWR-
8	Brown	Brown		PWR-

# 7. Troubleshooting

Symptom	Identification Method		
No PoE	<ul> <li>Check the PoE switch hub connection state.</li> <li>Check the CABLE PIN array.</li> <li>Check the connection between the NVR and the Camera</li> </ul>		
No Video	<ul> <li>Check the CABLE PIN array.</li> <li>Check the cable transmission distance.</li> <li>Check the ground state.</li> <li>Check if the camera model is able to input PoE.</li> <li>Check if the camera is compatible with NVR.</li> </ul>		
Unstable Video	<ul> <li>Check the CABLE PIN array.</li> <li>Check the cable transmission distance.</li> <li>Check the ground state of the product.</li> <li>Check the set value of camera. (Transmission video quality, frame rate, resolution, etc.)</li> <li>Check if the bandwidth is over 10Mbps after setting Bandwidth Switch as 10M.</li> </ul>		
Unstable Network	<ul> <li>Check the NETWORK CABLE configuration.</li> <li>Check if there is any equipment that generates radio or strong waves in the surrounding environment.</li> <li>Check if the Network configuration is installed properly.</li> </ul>		

# 8. Specifications

Model		SC-IPE3001W		
Dower Input	DoE	PoE IEEE 802.3af / 802.3at		
Power Input PoE		Endspan / Midspan (Mode A / Mode B)		
PoE Outpu	t	Midspan only (Mode B)		
Power Consu	umption	0.5W Max.		
Maximum Transmission		In 100Mbps : Max. 100m (CAT.5e)		
Distance		In 10Mbps : Max. 250m (CAT.5e)		
Transmission	n Bandwidth	10/100Mbps (Full duplex)		
RJ-45 Conne	ector	1Pin: TX(+), 2Pin: TX(-), 3Pin: RX(+), 4Pin: PWR(+),		
Pin Assignm	ent(Polarity)	5Pin: PWR(+), 6Pin: RX(-), 7Pin: PWR(-), 8Pin: PWR(-)		
		YELLOW ON : Power Input		
		YELLOW OFF : No Power Input		
	CAMERA SIDE	Green ON : Connected to Camera		
		Green Blinking : Successful Data Transmission		
LED		Green OFF : No Data Transmission		
Indicator	NVR SIDE	YELLOW ON : Power Input		
		YELLOW OFF : No Power Input		
		Green ON : Connected to NVR		
		Green Blinking : Successful Data Transmission		
		Green OFF : No Data Transmission		
		25.5W based on IEEE802.3at Power Device		
Maximum Po	ower Output	(This may vary depending on the condition of the cable and the number of connected products.)		
Bandwidth Switch		Transmission Bandwidth Settings: 100Mbps or 10Mbps		
Connection CAMERA SIDE		RJ-45 1Port (TIA/EIA568B Type)		
Port	NVR SIDE	RJ-45 1Port (TIA/EIA568B Type)		
IP Rate		IP67: Waterproof & Dustproof		
Temperature / Humidity		-10°C~+50°C / 0 ~ 80%		
Case Material / Weight		ABS / 120g		
Dimensions (mm)		122(W) x 43(H) x 25(D) mm		

<sup>\*</sup> Using the LAN cable extension gender (coupler) causes signal attenuation. The use of multiple gender connections is not recommended.

X Cable transmission distance may vary depending on the specifications of camera and NVR.

<sup>\*</sup> When using the camera PoE function, the transmission distance may vary depending on the type of camera

### 9. Warranty Certificate

This product has passed thorough quality control and test, and if this gets broken during normal use, we provide the two-year warranty service.

Model No.		
Serial No.		
Distributor		
Date you purchased		
Place you purchased		
Warranty Period		Two (2) year from the date of purchase
Purchaser	Name	
	Address	

- Please check this warranty indication first.
- Please contact your distributor after checking out any defect in the products.
- The standard for repairing, replacement or reimbursement follows Customer.
- Warranty content any defect under normal use within the warranty service period we give you free repair service according to the warranty certificate.
- We charge you with the fee of parts and service despite of free warranty service period. Any breakage made without care such as:
  - Breakdown due to natural disasters (lightning, fire, flood, tsunami, etc.)
  - When disassembled or repaired by the user
  - When connecting power other than rated power.
  - When you want to reassemble for full system or replace parts within warranty service period.
  - When unauthorized person modified or made damage on the product trying to repair it.
  - Failure due to careless handling of the user
  - When replacing consumables
  - Lightning strike.
- Please note that we don't support the breakage after warranty service period expired. If the customer wants to get it repaired, we charge them with the fee.
- The specification is subject to change without prior notice for quality improvement.

### **MEMO**





Wijzigingen voorbehouden!