

# CW-3

## Wireless HD Video Transmission System

CAM ~ WAVE

### Instruction Manual

Thank you for choosing the CW-3. The CW-3 is a wireless transmission device which transmits video and audio with 5GHz band radio frequencies. Please read this instruction manual to best maximize performance and safely use your CW-3.

#### SAFETY INSTRUCTIONS

To use this product safely and correctly, please follow the safety precautions set out below. Product misuse may cause fire, shock, injury, product failure or other hazards. Please read this manual before using your CW-3 and retain for future reference.

##### CAUTION

##### Fire or electric shock may cause injury or other accidents.

- Before using an external power supply, always check that the voltage is within the specified range and that the polarity of the connector is correct, to prevent smoke or fire.
- Do not attempt to disassemble, modify or repair this product by yourself. It may cause fire or electric shock. Please consult your dealer or local IDX office for inspection and repair services.
- Do not use this product near water or in high humidity environments. It may cause fire or electric shock.
- In case of damage, smoke, unusual smell or other unusual / unexpected situations, stop use immediately and consult your dealer or local IDX office.
- If ventilation openings are blocked, this may cause excessive heat or damage.
- After long periods of continuous use, please be cautious of touching the case of the unit as it may become overheated.
- Using the CW-3 in an environment with a lot of moisture, soot or dust may cause excessive heat or electric shock.
- Do not place this product on an uneven or a vibrating surface. It may cause failure or damage.

##### Caution on the use of this product and radio waves

- This product has been approved for technical standard compliance certification as a wireless device of radio stations with low antenna power specified under the FCC (in US) / ETSI (in Europe) Radio wave regulation. There by a license for radio station use is not required for operation.
- This product is allowed to be used only in designated region by IDX.
- This product is pursuant to the appropriate regulations and can be used outdoors as well.
- CW-3 uses 5GHz band radio frequencies and will not interfere with medical devices. However, when in use, it is recommended to keep the CW-3 at least 30cm (12in.) away from medical devices to ensure safety.

#### Features

- Supported 3G-SDI / HD-SDI input and output.
- Transmitter provides SDI buffered output.
- Transmission delay is less than 2msec.
- Signal is encoded by 128bit AES encryption.
- DFS functionality allows for both indoor and outdoor use.

#### FOR US version

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.

#### Packing list

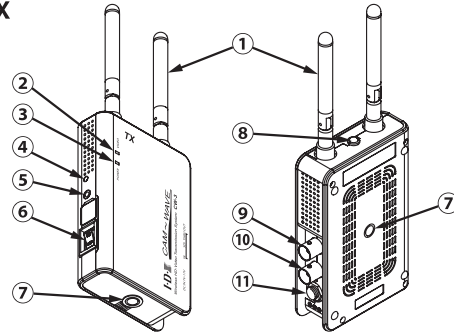
- CW-3 TX (Transmitter)
- CW-3 RX (Receiver)
- Antenna x2 (for Transmitter)
- AC adapter for Receiver

#### Accessory kit

- D-Tap to Pin cable
- BNC Cable x2
- Mounting adaptor

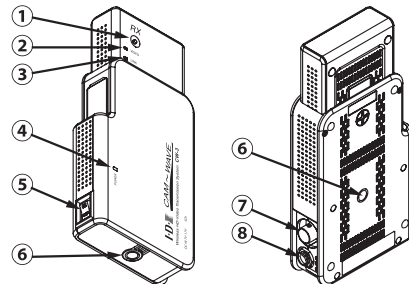
#### Switches and connectors

##### TX



- ①Antenna ②VIDEO LED ③POWER LED ④Push button (service use) ⑤GPI out ⑥Power switch ⑦1/4-20inch screw hole ⑧LINK LED ⑨SDI buffered out ⑩SDI input ⑪DC input (7-17V)

##### RX



- ①Push button (service use) ②VIDEO LED ③LINK LED ④POWER LED ⑤Power switch ⑥1/4-20inch screw hole ⑦SDI output ⑧DC input (7-17V)

#### FOR EU version

This equipment is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. In order to obtain the declaration of conformity statement for the European Union countries, please contact the appropriate IDX office.

#### Setup and Operation

- 1) Mount the TX onto camera by using mounting adaptor then attach the supplied antenna to TX. Connect the SDI cable between camera and TX then connect the supplied DC cable between the DC IN of TX and D-Tap connector on battery or P-V plate.
- 2) Plug the AC adapter to RX then connect the SDI out and monitor.
- 3) Turn ON the power switch of both TX and RX then CW-3 will automatically starts searching for available frequency.
- 4) A LINK LED flashes when the system is in search mode and then turns SOLID as soon as system links firmly.
- 5) A VIDEO LED turns off when video signal is in lost or failed.

#### Note

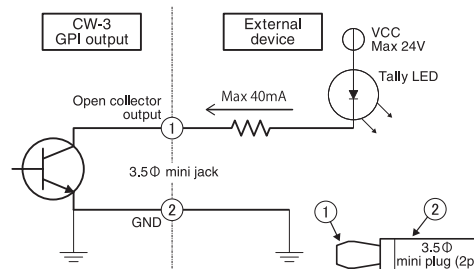
- \* In the areas where other 5GHz wireless devices are in operation, transmission may be interrupted.
- \* CW-3 is programmed region code accordingly so that the transshipment and use in the unspecified region may violate local law.
- \* The maximum transmission range varies depending on the surrounding environment such as radio wave conditions, composition of the wall, weathering, etc.. therefore the specification of the transmission range is not a definite range.
- \* And unstable signal reception may be caused by the height, angle and distance between TX and RX.
- \* Keep distance about 3m(10ft) between the TX and RX when set it up. System may not link up if the distance is too close each other.
- \* Do not use under the direct sunlight environment.
- \* Plug and unplug the connectors when the power SW is off.
- \* Do not press the button on the TX and RX. Please turn the power off if the system stop working after accidentally pressed these buttons.

#### DFS Functions

DFS is the abbreviation of "Dynamic Frequency Selection". DFS detects the radio waves of weather radar and the CW-3 automatically searches for an available frequency to avoid interference. LINK TIME takes approximately one minute.

#### Using GPI output

A TX provides GPI output. GPI output is an open collector output in synchronization with the status of wireless link. Thus, now it is possible to interface with an external tally device for better viewing. Please note that the external tally device should be VCC 24V / 40mA or less.



#### Specifications

Video		
Signal standard	SMPT 242M Level A SMPT 292M	
Video format	3G : YCbCr 4:2:2 10bit 1080p 60 / 59.94 / 50Hz	
	HD : YCbCr 4:2:2 10bit 1080i 60 / 59.94 / 50Hz	
	1080p 30 / 29.97 / 25 / 24 / 23.98Hz	
	720p 59.94 / 50Hz	
Audio	SDI Embedded Audio	
Wireless transmission		
Frequencies	US : 5270, 5310, 5510, 5550, 5670MHz EU : 5510, 5550, 5670MHz	
Channel bandwidth	40MHz	
Transmission format	MIMO / OFDM / JSCC	
Antenna	Transmitter	External x2
	Receiver	Internal x4 (Receiving) Internal x1 (Transmitting)
Coding	AES 128bit encryption	
Link mode	UNICAST	
Indication and Operation		
LINK LED	Search	Blink
	Linked	Light on
VIDEO LED	Video valid	Light on
	Video fail	Light off
POWER LED	Power on	Light on
	Power off	Light off
Connectors		
Video input/output	Transmitter	BNC x1 (SDI input)
	Receiver	BNC x1 (SDI buffered output) BNC x1 (SDI output)
GPI output	Transmitter only	3.5Φ mini jack Open collector output MAX 24V 40mA
DC input	Pinjack	5.5Φ x 2.1Φ
Product specification		
Dimensions	Transmitter	109.2(W)x68.8(D)x25.4(H)mm
	Antenna	108.0(W)x10.0(D)x10.0(H)mm
	Receiver	153.5(W)x73.5(D)x25.0(H)mm
Weight	Transmitter	150g
	Receiver	165g
Input voltage	DC 7-17V	
Power consumption	Transmitter	8W (MAX)
	Receiver	10W (MAX)
Operating temperature	0 ~ 40°C	
Regulation / Certification	FCC : Part15 subpart E (15.407)	
	CE : EN 62311:2008	
	EN 301 893, EN 301 489-1, EN 301 489-17	
	EN 65950-1:2006+A11:2009+A1:2010+A12:2011	
	RoHS compliant	

#### Warranty & Service

- Warranty period of the CW-3 is two years after purchase.
- Warranty may be voided even within the warranty period when IDX noticed following :  
Improper use of CW-3 / Malfunction due to excess or deficiency of power / Malfunction due to power short circuit / Physical damages caused by dropping or vibration / Malfunction due to water / Unauthorized used and / or modification done by customer
- When any assistance is needed, please contact your local IDX dealer or appropriate IDX office below.

Design and specification are subject to change without notice.



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