

# Operating Instructions



## 2.4GHz Digital Wireless Receiver/Transmitter(16dBm)

Please read this manual thoroughly before operating the unit,  
and keep it for future reference.

V2.0

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# 1. Precautions

## ● Storage and Keeping

- (1) Do not expose the device to excessive heat or cold. The storage temperature of this device is  $-30^{\circ}\text{C}\sim+80^{\circ}\text{C}$ , and the operating temperature is  $-20^{\circ}\text{C}\sim+70^{\circ}\text{C}$ . The humidity is Rh90%.
- (2) Avoid dropping or striking this device.
- (3) Avoid using this device in enclosed spaces, areas with excessive vibration or subjecting this device to severe impacts.
- (4) Do not place cables where they may be pinched or stepped on.
- (5) The device is designed to be water-resistant, but not for underwater application.

## ● Operating Precautions

- (1) The device may be powered by a 12 or 24 volt automotive battery or vehicle electrical system.
- (2) Make sure all cables are connected properly. Observe polarity. Improper cable connections may damage the device. Remove the power cable connections when you do not intend to use the unit.



### Warning!

High voltage is present within the device. The case should be opened by professionals.





### Special Notice

Never try to repair this device by yourself. In case of any problems, please turn off the device at once and notify our company or authorized dealer.

● Maintenance

Remove all cable connections from the device before cleaning the unit.

	Caution	
	Risk of electric shock Do not open	
Caution: to reduce the risk of electric shock, Do not remove cover (or back). No user-serviceable parts inside. Refer servicing to qualified service personnel.		



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



This symbol is intended to alert the user not to dispose of electrical and electronic equipment.

**FCC Warning**

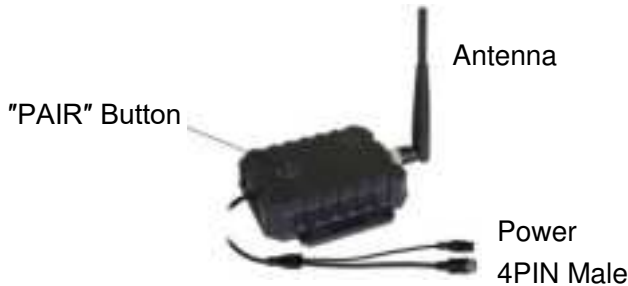
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE 2: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## 2. Transmitter Product Features



- (1) 2.4G digital wireless transmitter
- (2) Power supply: DC 24V
- (3) Supply 12V voltage for camera
- (4) Support CVBS or AHD 720P or AHD 1080P camera
- (5) Metal housing, solid, suitable for outdoor use
- (6) Waterproof protection level equals to IP69K
- (7) Indication

**Power:** the "POWER" indicator turns red when power is on.

**Pairing:** press "PAIR" button for 3 seconds, "PAIRING" indicator turns blue and flashes.

**Pairing success:** the "PAIRING" indicator turns blue and keeps on.

## 3. Transmitter Technical Specifications

- (1) Power supply: DC 24V
- (2) Video input: CVBS / AHD720P / AHD1080P
- (3) Video Codec: H.264
- (4) Operation frequency: 2408 - 2478 MHz (ISM band)
- (5) Modulation: QPSK
- (6) RF Bit Rate: 6Mbps
- (7) Spread spectrum: FHSS
- (8) Out Power: 16dBm
- (9) Line of Sight Range: 200M
- (10) Latency: 200ms
- (11) Operating Temperature: -20 ~ +70°C RH90%
- (12) Storing Temperature: -30 ~ +80°C RH90%

## 4. Receiver Product Features



- (1) 2.4G digital wireless receiver
- (2) Power supply: DC 24V
- (3) Metal housing, solid, suitable for outdoor use
- (4) Waterproof protection level equals to IP69K
- (5) Indication:

**Power:** the "POWER" indicator turns red when power is on.

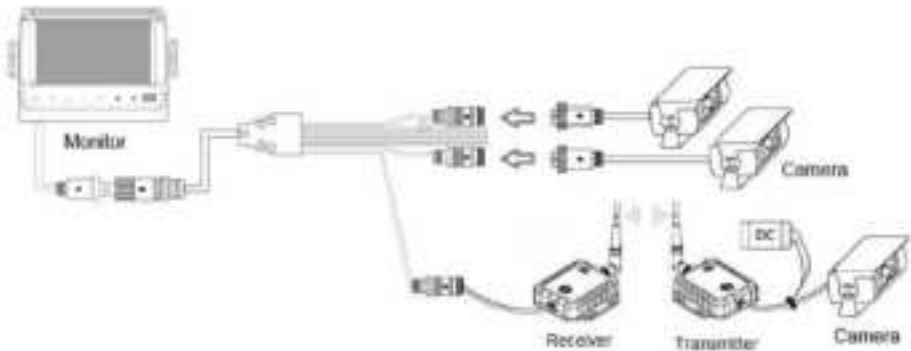
**Pairing:** press "PAIR" button for 3 seconds, the "PAIRING" indicator turns blue and flashes.

**Pairing success:** the "PAIRING" indicator turns blue and keeps on.

## 5. Receiver Technical Specifications

- (1) Power supply: DC 24V
- (2) Video output: AHD720P / AHD1080P
- (3) Video Codec: H.264
- (4) Operation frequency: 2408 - 2478 MHz (ISM band)
- (5) Modulation: QPSK
- (6) RF Bit Rate: 6Mbps
- (7) Spread spectrum: FHSS
- (8) Receiving Sensitivity: -78dBm
- (9) Line of Sight Range: 200M
- (10) Latency: 200ms
- (11) Operating Temperature: -20 ~ +70℃ RH90% Storing Temperature: -30 ~ +80℃ RH90%

## 6. Application



## 7. Operation Instructions

- Transmitter:

- (1) Connect the transmitter to a DC power, and connect a camera to the transmitter. When the transmitter is powered on, the “POWER” indicator turns red.
- (2) When the transmitter is powered on, it will automatically connect to the paired receiver if the transmitter is paired before( the receiver should be working at the same time). The transmitter will enter pairing mode automatically if it is not connected to the receiver for more than 6 seconds. When in pairing mode, it will exit pairing if it is not connected to the receiver for more than 20 seconds. Press the "PAIR" button for 3 seconds to force the transmitter into pairing mode at any time.
- (3) When the transmitter enters pairing mode, the “PAIRING” indicator turns blue and flashes until pairing success or pairing timeout within 20 seconds. The “PAIRING” indicator will be on always after pairing success, and will turn off if pairing fails.

- Receiver:

- (1) Connect the receiver to the monitor and the monitor should be switched to the receiver channel. When the receiver is powered on, the "POWER" indicator turns red.
- (2) When powered on, the receiver will always wait for connecting to the transmitter with which it paired before. Press the "PAIR" button for 3 seconds to force the receiver into pairing mode at any time.
- (3) When the receiver enters pairing mode, the "PAIRING" indicator turns blue and flashes and the receiver will show a picture which indicates pairing. The "PAIRING" indicator will be on always after pairing success, and will turn off if pairing fails.

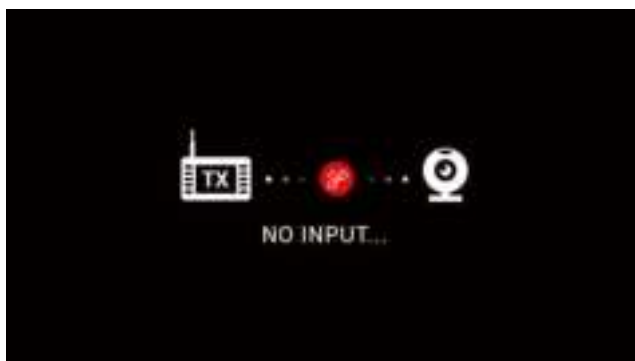


- (4) If the receiver does not pair with a transmitter, or if the receiver cannot receive signal from the transmitter, the receiver will display a picture which indicates "LOST LINK".





- (5) If the transmitter does not have a connected camera, or if the camera is broken, the receiver will display a picture which indicates “NO INPUT”.



- (6) The video output of the receiver will automatically match the format of the camera which is connected to the transmitter (e.g., if a 1080P camera is connected to the transmitter, the transmitter will output a AHD 1080P video signal).