

COSMO 2000

2000FT WIRELESS HDMI/SDI TRANSMISSION SYSTEM

USER MANUAL

Version1.0

PACKING LIST



1 Receiver x 1

4 User Manual x 1

7 DC Conversion Cable (LEMO2 -pin Male to D-tap) x 2

2 Transmitter x 1

5 Mushroom Antenna x 2

3 5GHz Antennas x 8

6 Magic Arm x 1

• Please subject to actual shipment as the standard if any difference in accessories.

PARAMETERS

	Transmitter	Receiver
Interface	SDI Input (BNC female) SDI Loop Out (BNC female) HDMI Input (Type A female) 2 Antenna Port (RP-SMA male) DC Input (2pin LEMO female) Mini USB 3.5mm Stereo In	SDI Output SDI Output HDMI Output (Type A female) 5 Antenna Port (RP-SMA male) DC Input (2pin LEMO female) Mini USB
Supply Voltage Range	7~36V DC	7~36V DC
Power Consumption	<9W	<8W
Weight	315g	520g
Size	(L x W x H): 116 x 68 x 25mm, not include antennas and battery plate	(L x W x H): 158 x 102 x 25mm, not include antennas and battery plate
Input Video Format	HDMI: 480p60, 576p50, 720p50/59.94/60, 1080i50/59.94/60, 1080p23.98/24/25/29.97/30/50/59.94/60; HDMI Type A; SDI: 3G, HD, and SD-SDI (auto-selected); SMPT-259/274/292/296/372/424/425; 1x BNC; 1x BNC Loopout;	/
Output Video Format	/	HDMI: 480p60, 576p50, 720p50/59.94/60, 1080i50/59.94/60, 1080p23.98/24/25/29.97/30/50/59.94/60; HDMI Type A; SDI: 3G, HD, and SD-SDI (auto-selected); SMPT-259/274/292/296/372/424/425; 2x BNC output;
Input Audio	SDI embedded 2 channel 24 bit/48KHz	/
Output Audio	/	SDI embedded 2 channel 24 bit/48KHz
Frequency Band	5.1~5.9GHz, configurable with China, North America, Europe, etc	5.1~5.9GHz, configurable with China, North America, Europe, etc
Modulation Mode	OFDM-16QAM	OFDM-16QAM
Transmission Power	Maximum 18dBm	/
Receiver Sensitivity	/	-75dBm
Occupied Bandwidth	20/40MHz	20/40MHz

INTRODUCTION

The wireless high-definition video transmission system, using today's highest level of wireless communication technology, transmits broadcast-quality uncompressed, non-delayed 3G SDI or HDMI 1080P HD signals. Transmitter and receiver can provide dual SDI input and output, with an OLED screen showing output information, supporting smart cooling fan. Working in broadcast mode, the transmission range can reach 2000ft.

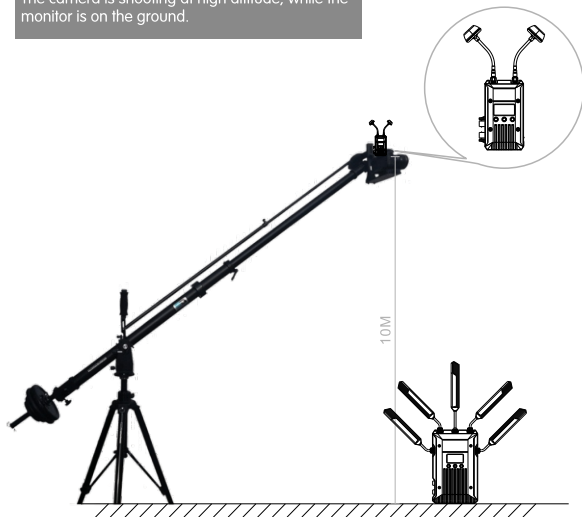


THE APPLICATION OF MUSHROOM ANTENNA

When the height difference between the transmitter and the receiver is large, the mushroom antenna is recommended to enhance the stability of the wireless transmission.

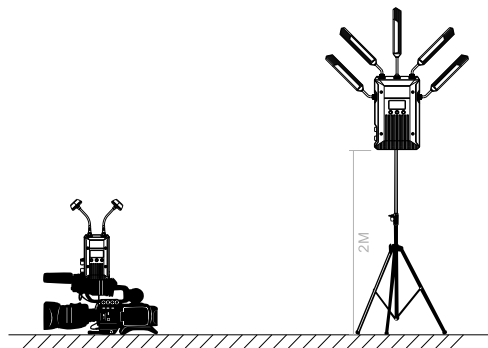
Scene 1

The camera is shooting at high altitude, while the monitor is on the ground.

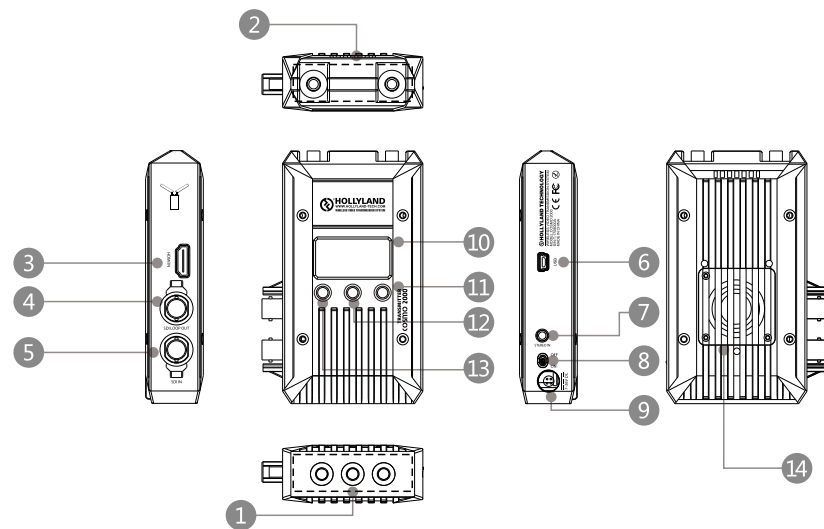


Scene 2

Camera is shooting very close to the ground, while the monitor is used at higher place.



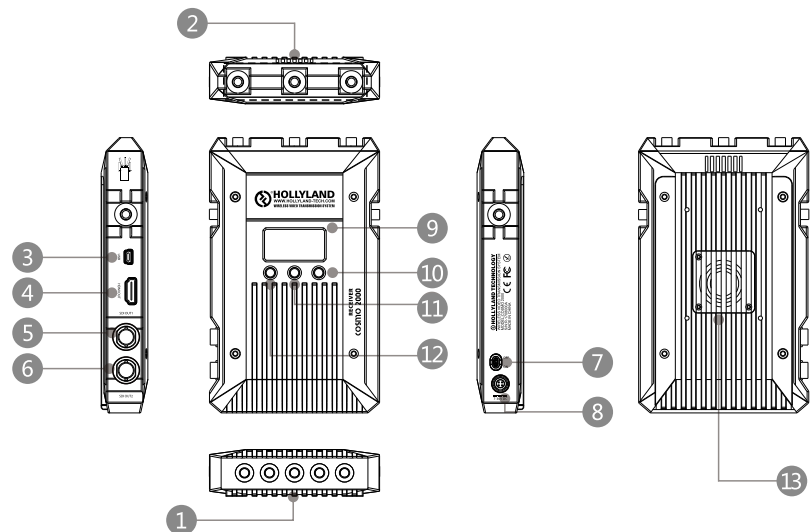
PRODUCT INTRODUCTION



Transmitter

- 1 1/4-20 Screw Hole
- 2 Antenna Port (RP-SMA male)
- 3 HDMI Input
- 4 3G SDI Loop Out
- 5 3G SDI Input
- 6 Mini USB
- 7 3.5mm Stereo In
- 8 Power Switch
- 9 DC Power Input(7-36V)
- 10 OLED Screen
- 11 Channel Add Button
- 12 Frequency Adjustment and Confirm Button
- 13 Channel Subtract Button
- 14 Smart Cooling Fan

PRODUCT INTRODUCTION



Receiver

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PRODUCT INTRODUCTION



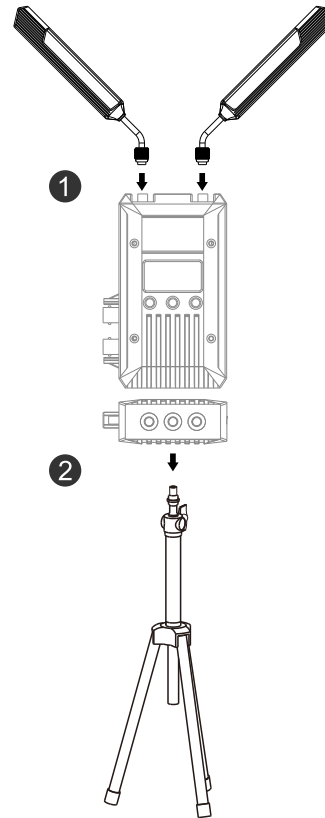
Screen Instruction

- ① Link Indicator
- ② Channel
- ③ TX Video Source Display, RX Video Source Display
- ④ Signal Format
- ⑤ Fan Status
- ⑥ Working Temperature
- ⑦ Transmitter Encryption Enabled

■ Installation details and cautions

Install the antennas

Stabilize transmitter and receiver

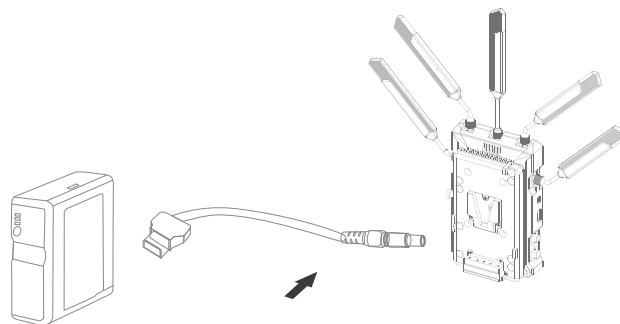


OPERATION INSTRUCTION

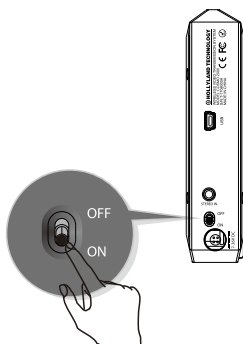
■ Installation details and cautions

Connect power supply

3



4

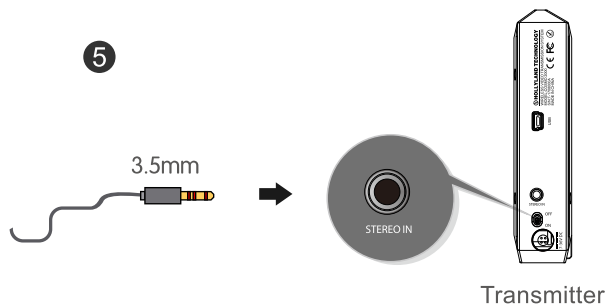


Turn on the switch

OPERATION INSTRUCTION

■ Installation details and cautions

Connect the transmitter audio



Set Up Connection

- When the receiver does not receive the signal, the display shows the status of "No Video", No format display



■ Installation details and cautions

When both SDI and HDMI have valid video input, the system will take SDI input as priority

RSSI indicators



HDMI Signal



SDI Signal

Strong



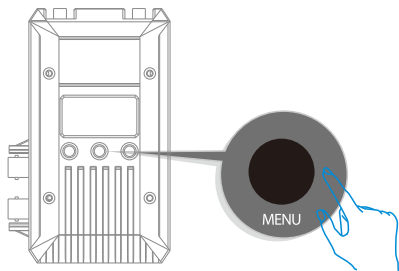
Middle



Weak



■ Instruction of Smart Cooling Fan and Security



Long press 6 seconds



```
=> 1.ADVANCED  
2.SECURITY  
3.VERSION  
4.EXIT MENU
```



```
- BASIC MODE  
=>* SMART MODE  
- RETURN
```

Fan Function Menu

1. Turn off the fan function will affect the use of a small part of the function
2. When "SMART MODE" mode is selected, the fan will automatically turn on when reaching the specified temperature; if the TX temperature is very high, but the fan has not turned on, it is regarded as a fan fault. Please contact the manufacturer at this time, as it is sent back to repair.

- Close smart fan, stop quick playback switch, lower power consumption
- Open smart fan, smart fan automatically open or close according to temperature
- Return

■ Instruction of Smart Cooling Fan and Security

Instruction of Security Menu



```
1.ADVANCED
=> 2.SECURITY
3.VERSION
4.EXIT MENU
```

- — Select "SECURITY" to set the encryption



```
=> * DISABLE
.ENABLE
.PAIR ID
.RETURN
```

- — Transmitter encryption close
- — Transmitter encryption open, start pairing
- — Receiver ID. See device ID number
- — Return

OPERATION INSTRUCTION

■ Instruction of Smart Cooling Fan and Security



Long press "MENU" to the
"SECURITY" choose
"ENABLE"
On the transmitter, transmitter
start to encrypted pairing

Long press "MENU" to the
"SECURITY" on the receiver,
Press "OK" choose
"PAIRING" on the menu. star
to encrypted pairing.

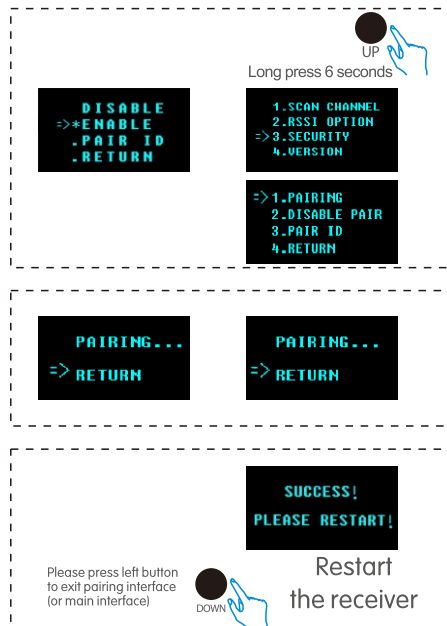
Pairing succeed



Back to main menu

Transmitter

Receiver



■ Receiver scanned and wireless RSSI

Long press "MENU" 6 seconds on the receiver into main menu



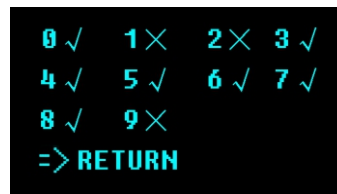
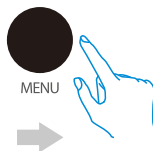
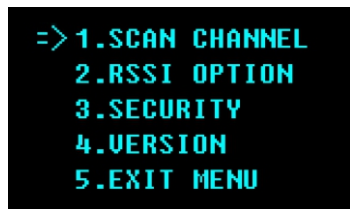
=> 1.SCAN CHANNEL
2.RSSI OPTION
3.SECURITY
4.VERSION
5.EXIT MENU

- Automatic scanning channels
- Signal strength
- Encrypt, decrypt, device ID
- Program version
- Back to the main menu

■ Receiver scanned and wireless RSSI

Automatic scanning channels

Choose "SCAN CHANNEL" Start scanning electromagnetic environment



✓ means able to use
✗ means not to be used

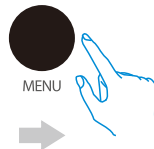
A:Please turn off transmitter when receiver scanning channels

■ Receiver scanned and wireless RSSI

Received Signal Strength Indication

Choose "RSSI OPTION" There are signal qualities of 5 antennas

```
1.SCAN CHANNEL  
=>2.RSSI OPTION  
3.SECURITY  
4.VERSION  
5.EXIT MENU
```



```
I: 24 23 24 25 23  
O: 48 48 18 18  
P: 47 49 46 49 47  
=> RETURN
```

I,O number as bigger as possible P number as smaller as possible

■ Instruction of Smart Cooling Fan and Security

Attention

- 1.one transmitter can be paired with many receivers with encryption. When pairing, the transmitter should keep in the pairing interface, and the other receivers are paired according to the matching method. After the matching of all receivers,press "MENU"back to the pairing interface (or main menu),and restart all the paired receivers.
- 2.When the transmitter encryption is done, the main interface displays the LOCK icon; when the encryption is closed, the LOCK icon disappears.
- 3.When selecting "ENABLE" in security menu, if pairing is not successful when returning to main menu, the image received by the receiver will show abnormally.
- 4.The receiver must be restarted after pairing is done. The transmitter must exit the pairing interface. Otherwise, the receiver may display abnormally.

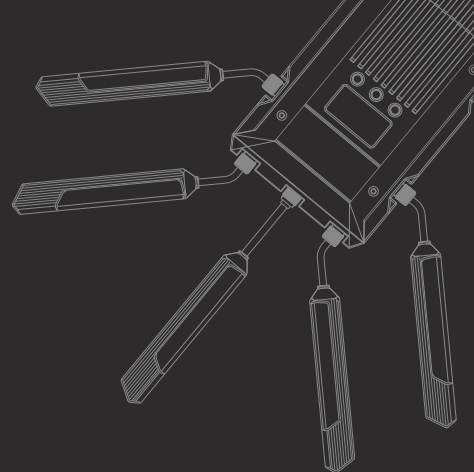
TROUBLE SHOOTING

1 No output on display

- a) Check TX and RX power first, if power supply through battery or external power source, please make sure the battery or external power source works normally;
- b) Check if TX antenna and RX antenna installed right and steady;
- c) After that, check 'Video' indicator, if TX 'Video' indicator is not light, then check SDI or HDMI cable is plugged in and video source is ready please;
- d) Finally check input video format is compatible with this product specs.

2 Poor output video quality

- a) Check if SDI or HDMI input or output cable is plugged well;
- b) Make sure the transmitter and receiver are placed at least 1.5 meters above the ground;
- c) Please check the wireless signal strength indicator "RSSI" status. There should be 2-3 RSSI LED lit if the user want to get better video quality; if there is only 1 RSSI LED or no LED light, that means the received wireless signal is weak, and should decrease the transmission distance or try to change to other frequency channels in case some exist interference.



FCC STATEMENT

1, 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.

(2) This device must accept any interference received, including interference that may cause undesired operation.

2, Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

■ NOTE

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.

■ RF WARNING STATEMENT

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

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