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# Important Information

Please take the time to read this user manual before use the Product, it contains all notes and important information regarding your wireless HD video transmission system.

Our limited warranty applies when the products is handled properly for intended use, in accordance with its operating instruction.

However the warranty may be void in the following cases:

- Repairs or product modification have been executed by unauthorized service personnel.
- The damages are caused by accidents including but not limited to, lighting, exposed to rain or water and moisture.
- Use of a DC adaptor not compatible with the product and its voltage rating range
- The model number on the product has been modified or the warranty tag has been removed



## **Warning**

- This product should not be exposed to dripping or splashing.
- Place receiver/transmitter on a flat, hard and stable surface
- Ventilation: Do not block the ventilation slots on the receiver/transmitter or place any heavy object on the top cover
- Put the receiver/transmitter in a properly ventilated area, away from direct sunlight or any source of heat.
- Water Exposure: To reduce the risk of fire or electric shock, do not expose the receiver/transmitter to rain or moisture.
- Our company has the right to modify this document without any notice.

## Special Notice:

- Use of this product in the following locations may result in abnormal video and audio output(noise, blocked image... etc.)
  1. Product installed in the walls made of concrete.
  2. Product is situated near the refrigerator or metal fitment.
  3. A cluttered room where the wireless signals may be blocked.
- This product has been tested and manufactured to comply with each country's safety rules. However, there is no guarantee that interference will not occur in some installation scenario. If the interference happens, increase the distance between the transmitter and receiver.

## Introduction

LINK-MI This equipment is designed to replace the current widely used cable in the live broadcasting and production environment, it can be used in film production, live broadcasting as well as many application which requires good quality wireless video connection.

## Product Details

LM-WS500 is main consist of one transmitter (TX) and one receiver (RX).



## Specification

ITEM	SPECIFICATION
Frequency	5.1-5.9(GHz)*Subject to different RF regulations in different regions.
Bandwidth	40MHz
Video Formats Supported	1080p 23.98/24/25/30/50/60 1080psf 23.98/24/25 1080i 50/59.94/60 720p 50/59.94/60 576p 576i 480p 480i
Audio Formats Supported	PCM, DTS-HD, Dolby TrueHD
Transmission Range	Up to 1640ft(Line of sight)
Transmitter	
Antenna	External Antenna × 2pcs
Transmission Power	17dBm
Functional Interface	SDI Input; SDI Loop Output; Mini USB; LEMO Power IN; Antenna RPSMA Socket;
Mounting Structure	1/4" Hot-shoe connection
OLED Display	Wireless Channel Info; video status; Battery info.
Working Voltage	9-18V by DC input, F970 battery
Power Consumption	7-8W
Net Weight(with antenna)	300g
Dimensions	130×69×24mm
Temperature	-10-50℃(Operating); -40-80℃(Storage)
Receiver	
Antenna	External Antenna × 5pcs
Receiving Sensitivity	-70dBm
Functional Interface	SDI Dual Output; HDMI Output; Mini USB;

	LEMO Power IN; Antenna RPSMA Socket; Power ON/OFF
Locating Structure	1/4" Hot-shoe connection
OLED Display	Wireless Channel Info; SDI/HDMI Input Info; Signal Status; Power Info
Working Voltage	9-18V by DC input, SONY V-mount battery
Power Consumption	7-8W
Net Weight(with antenna)	800g
Dimensions	176×135×33mm
Temperature	-10-50℃ (Operating); -40-80℃ (Storage)

\*Since the product's improving process, all the performance, design and specifications of our products are subject to minor change without prior notice.

## Product Features:

- Uncompressed 3G/HD/SD-SDI , up to 1080p 50/60
- **Less than 1 frame latency**  
There is no discernible video delay and you can use it as real time on-location monitoring.
- **Operating range:** Up to 1640ft (line of sight), the transmission distance may be different, depend on surroundings, radio wave conditions, buildings block, etc.
- **Operating band: 5GHz ISM band**
- **Multicast support**  
Support one transmitter to multi receivers. User can set channel to pair both the transmitter and receivers.
- **AES 128 encryption**
- **OLED shown in work status**
- **All-Metal Shell**  
Both transmitter and receiver adapt metal shell which is durable and solid.
- **Simple connection**  
The wireless system is plug-and-play designed, without any software configuration.

**Remark:**

1. Fix the two antennas to the transmitter and arrange them to be a right angle as below figure to get better performance.

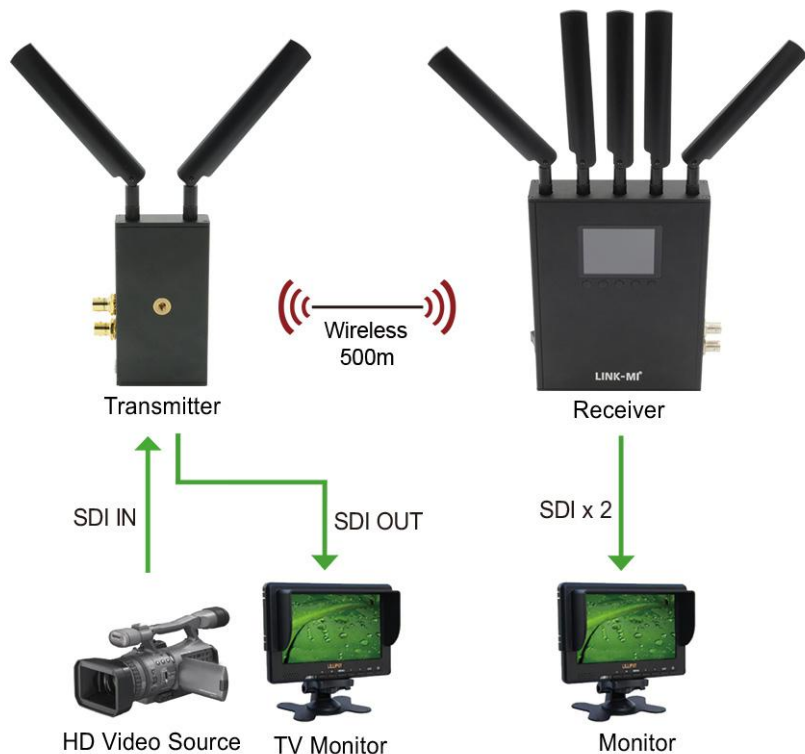


2. On transmitter side, when both SDI and HDMI source are inputted, the transmitter will automatically select the SDI source
3. Fix the five antennas to receiver and arrange them to a right angle as figure to get better performance.



4. Set the receiver higher will enhance the transmission distance.

## Connection

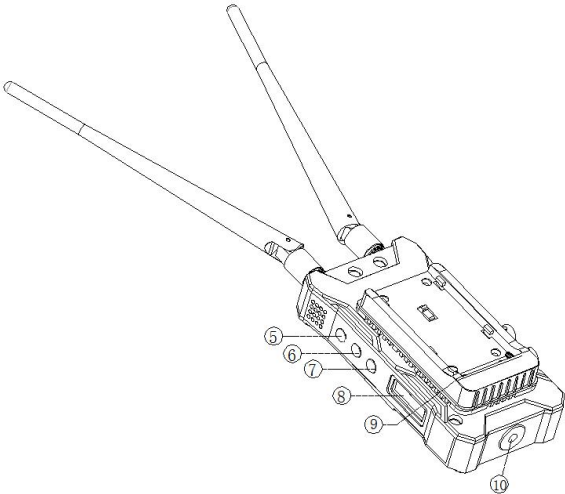
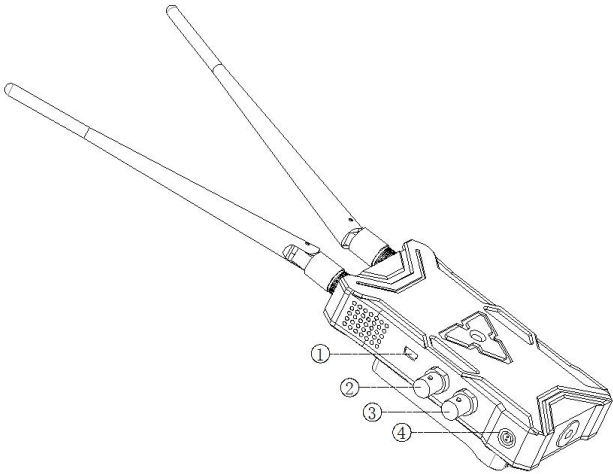


## Packing List:


Transmitter TX	1pcs
Receiver RX	1pcs
7" Articulating Arm	1pcs
SDI Cable	2pcs
Hot-shoe Stand	1pcs
DC Convert Cable	2pcs
5G Antenna	8pcs
Flight Case	1pcs
Outer Packing Cartons	1pcs

**Machine Information**

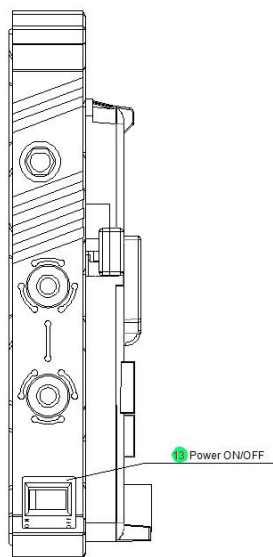
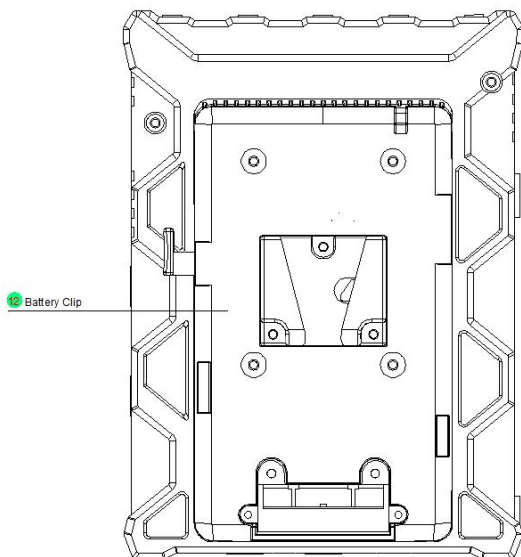
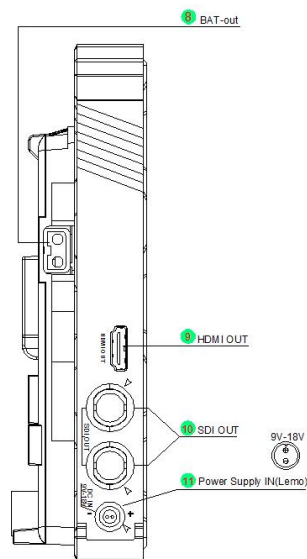
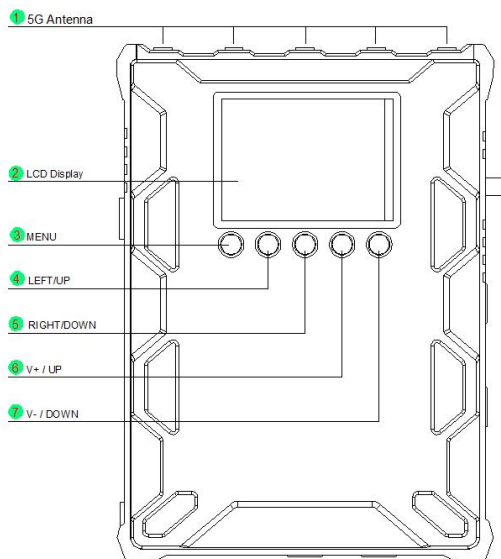
**Transmitter(TX)**





STRUCTURE	
1	Mini USB interface
	Firmware update
2	SDI IN
	Connect to SDI Video Source
3	SDI OUT(Loop Through)
	Connect to the your monitor or other
4	DC IN(Lemo)
	Support 9-18V
5	Switch button 
	Power ON or OFF the transmitter
6	MENU Button
	Unlock and Confirm the Selection
7	Set Button
	Unlock and confirm button
8	OLED Display
	Displays information of channel and battery capacity.
9	Battery Clip
	Battery compartment, for F550/F970 battery
10	"1/4" screw hole
	Fix transmitter.

# Receiver(RX)



STRUCTURE	
1	Antenna Connector x5
	RPSMA connectors for antennas
2	OLED Display
	Displays information of channel, signal strength and battery capacity.
3	MENU Button
	Unlock and Confirm the Selection
4	LEFT Button
	Channel -
5	RIGHT/DOWN Button
	Channel +
6	V+/UP Button
	Volume +, not use on this version
7	V-/DOWN Button
	Volume -, not use on this version
8	BAT-OUT
	Provide DC power supply from the battery for external equipment
9	HDMI OUT
	Connect to your HDMI monitor or other
10	SDI OUTx2
	Connect to your SDI monitor or other
11	DC IN(Lemo) *Support 9-18V
	Support 9-18V
12	Battery Clip

	Support V-Mount battery
13	Power ON/OFF
	Power on or OFF the receiver

## Uses your equipment

### For Transmitter side

1. Connect your SDI video source to the “SDI IN” port of transmitter.
2. If need, you can connect the SDI out(loop through) to other equipment as well
3. Fix the antenna
4. Connect DC power via power cable or insert F970 battery to the transmitter
5. Power on the transmitter
6. Set the Channel

### For receiver side

1. Connect “SDI OUT”/”HDMI OUT” port of receiver to monitor or other device.
2. Fix the antenna
3. Connect DC power via power cable or insert V-type battery to the receiver
4. Power on the Receiver
5. Set the Channel (must set both transmitter and receiver to the same channel)
6. After 5-10s, the transmission video will be shown on monitor

## Channel setting

Both Transmitter and Receiver were set to same channel in Manufactory.  
In case, you want to change to a new channel, please follow the below:

Remark:

Both transmitter and receiver must be set to same one

### TX channels changing

Step1: Press switch button  to power on the transmitter


Step2: Press “MENU” button until shown in the unlock icon  on OLED.

Step3: Press “Set” button to choose channel, then press “MENU” to confirm.

Step4: Transmitter channel setting accomplished.

### RX channels changing

Step1: Power on the Receiver

Step2: Press “MENU” button until display unlock icon  .

Step3: Click Left or Right button to choose channel, then click “MENU” to confirm.

Step4: Receiver channel setting accomplished.

## Trouble-shooting

If the receiver failed to output the video correctly, the possible causes are as below, please find the solution from following chart:

TROUBLES&POSSIBLE REASONS:		SOLUTION:
OSD Information on TV	<b>Displaying “Waiting for connection...” for a long time</b>	
	Transmitter is not powered up.	Power on the transmitter.
	Transmitter or receiver is not placed correctly.	Place the TX or RX correctly.
	The transmitter and receiver are too far away.	Move the receiver closer to the transmitter.
	Several solid wall partition on TX and RX.	Reduce the number of solid walls between TX and RX.
	There are so many obstacles between TX and RX.	Move the receiver closer to the transmitter.
	Other transmitter is working on the same or adjacent channel.	Turn off other transmitter, or change channel.
	<b>No Video Signal received</b>	
	Transmitter and video source are not connected.	Connect the transmitter to video source by SDI/HDMI cable.
	The video source is turned OFF	Power ON the video source.
	Bad contact of cable of transmitter.	Remove and then re-plug the transmitter
	Abnormal working of transmitter	Reboot the transmitter
	Problem with cable between TX and video source	Change the SDI/HDMI cable
	Player NOT support the output resolution format.	Switch the output video resolution to other modes.
	The TV/Monitor NOT support HDCP authentication	Replaced with HDCP-certified TV/Monitor.
Image	<b>No signal input to Receiver or TV/Monitor</b>	
	Receiver is turned OFF	Power on receiver.
	Receiver and TV are not connected.	Connect receiver and TV/Monitor via SDI/HDMI input.
	TV/Monitor NOT switched to SDI/HDMI input.	Switch TV/Monitor to SDI/HDMI input.
	Bad contact of the cable of receiver or	Remove then re-plug the SDI/HDMI

TV/Monitor.	cable.
TV/Monitor turn into standby mode.	Switch the TV/Monitor to normal operation mode.
Abnormal working of receiver.	Reboot the receiver.
<b>No image appear on TV/Monitor</b>	
Bad contact of receiver or cable.	Re-plug the cable of the receiver or TV/Monitor.
Abnormal working of receiver.	Reboot the receiver.
Receiver failure.	Please contact your retailer.
<b>Abnormal color on TV screen</b>	
Bad contact of cable of receiver or TV/Monitor.	Unplug and then plug the HDMI cable of the receiver or TV.
Bad contact of cable of transmitter or video source.	Unplug and then plug the HDMI cable of the TX and player.
Abnormal working of transmitter or receiver.	Reboot the transmitter and receiver.

## FCC Statement

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. To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example use only shielded interface cables when connecting to computer or peripheral devices).

## **FCC Radiation Exposure Statement**

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment 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.

## **Cautions!**

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user authority to operate the equipment.