LINK-MI®

LINK-MULTIMEDIA INTERFACE

250M PRO Wireless Extender 4K/1080P H.265 2.4G/5.8G

(LM-PRO250-103 / 203)

User Manual

Product Description

The LM-PRO250 series includes three product models with different functions:
PRO 1 is a 1080P@60Hz Full HD wireless HDMI transmitter
PRO 2 is a 4K@30Hz Ultra HD wireless HDMI transmitter
PRO 3 is a universal receiver compatible with both PRO 1 and PRO 2 transmitters.
In this system, PRO 3 serves as the common receiver for both 1080P and 4K transmission.

Therefore:
LM-PRO250-103 refers to the 1080P transmission kit, which includes PRO 1 (TX) + PRO 3 (RX).
LM-PRO250-203 refers to the 4K@30Hz transmission kit, which includes PRO 2 (TX) + PRO 3 (RX).

Product Category

Version	Category	Model
1080P Version (LM-PRO250-103)	250M HDMI Wireless Transmitter Receiver, 1080P, supports loop out, IR	TX: PRO 1 RX: PRO 3
4K@30Hz Version (LM-PRO250-203)	250M HDMI Wireless Transmitter Receiver, 4K@30Hz, supports loop out, IR	TX: PRO 2 RX: PRO 3

Note: When transmitting wirelessly, the designer connects up to 4 receivers (RX) to one transmitter (TX). In practice, 8 receivers (RX) can be connected for close range use.

1. Product Overview

This modular design allows users to easily upgrade from 1080P to 4K simply by replacing the transmitter, without needing to change the receiver, making the solution cost-effective and flexible.

This product adopts standard H.265/H.264 code over TCP/IP for high-definition video transmission. Its key advantage lies in the use of a single universal receiver (RX) that is compatible with multiple transmitters (TX), enabling seamless operation in both 1080P and 4K@30Hz application scenarios.

In addition to wireless HDMI video and audio transmission, the system supports HDMI loop out on the transmitter (TX), IR return control, and 3.5mm audio input and output —providing a range of optional features to suit different user needs.

This series is available in three transmission versions:
PRO A: Wired network (CAT cable) version

PRO B: Fiber optic version
PRO C: Combined wired + wireless version (2.4G/5.8G dual-band wireless)
This manual focuses on the PRO C version, which supports both wireless and wired transmission. For detailed instructions on the PRO A or PRO B versions, please refer to the corresponding manuals.

2. Features

1. Designed for video distribution in home AV systems, education, commercial presentations, surveillance, and digital signage applications
2. Supports dual-band 2.4G/5.8G wireless HDMI transmission over TCP/IP with H.265/H.264 code
3. Modular architecture: 1 universal receiver (PRO 3) compatible with multiple transmitters (PRO 1 for 1080P, PRO 2 for 4K)
4. Seamless upgrade from 1080P to 4K by replacing the transmitter only—no need to change the receiver
5. Supports up to 4 receivers per transmitter (up to 8 receivers in short-distance environments)
6. HDMI loop out on transmitter; supports IR return control and 3.5mm analog audio input/output
7. Resolution support: up to 4K@30Hz (LM-PRO250-203) / 1080P@60Hz (LM-PRO250-103)
8. Transmission range: up to 250 meters (820ft) in open space; CAT6 wired mode up to 150 meters (492ft)
9. Plug & Play design with no software installation required

3. Technical Parameter

Brand Name	LINK-MI		
Model No.	LM-PRO250-103 (1080P) / LM-PRO250-203 (4K)		
Product Name	250M Wireless HDMI Extender 1080P / 4K		
Specification	**PRO 1 (1080P TX)**	**PRO 2 (4K TX)**	**PRO 3 (RX)**
Input port	HDMI×1, IR×1, 5V×1, R/L×1	Same as PRO 1	RJ45×1, 5V×1
Output port	HDMI×1, RJ45×1	Same as PRO 1	HDMI×1, VGA×1, R/L×1, IR×1
Max. distance	Wireless transmission up to 250m (1TX to 1RX, open distance without obstacles); Network cable distance CAT6 max. 150 m.		
Code	H.265, H.264		
Default IP	TCP/IPV4 TX: 192.168.1.166 RX: 192.168.1.167		
Latency	≈0.1s		
HDMI cable	≤10m		
Supported Resolutions	PRO 1 + PRO 3 (1080P)	PRO 2 + PRO 3 (4K@30Hz)	
	1920*1080@60Hz/50Hz	3840*2160@30Hz	

(partial list only)	1680*1050@60Hz/50Hz 1600*900@60Hz 1400*900@60Hz 1366*768@60Hz 1280*1024@60Hz 1280*720@60Hz/50Hz	2560*1440@60Hz 1920*1200@60Hz 1920*1080@60Hz/50Hz 1680*1050@60Hz/50Hz 1400*1050@60Hz 1366*768@60Hz 1280*1024@60Hz 1280*720@60Hz/50Hz	
IR control	30kHz-60kHz		
R/L audio (select)	3.5mm stereo audio; 32kHz, 44.1kHz and 48kHz		
Power supply	DC5V 2A Type C power supply interface, support charging treasure and other mobile power supply		
Size	123×80×28mm (L×W×H)		
Material	ABS	Color	Gray
Weight	TX: ≈150g	RX: ≈150g	
Operating Temperature		-20℃~60℃	
Static Protection	1a Contact discharge level 2(±4KV) 1b Air discharge Level 3 (±8KV) Standard: IEC61000-4-2 Lightning protection, anti-surge		

4. Packing Contents

1× TX transmitter
1× RX receiver
2× USB charger
2× Type C power cable
1× IR TX cable
1× IR RX cable
4× Dual-band antenna
1× User manual

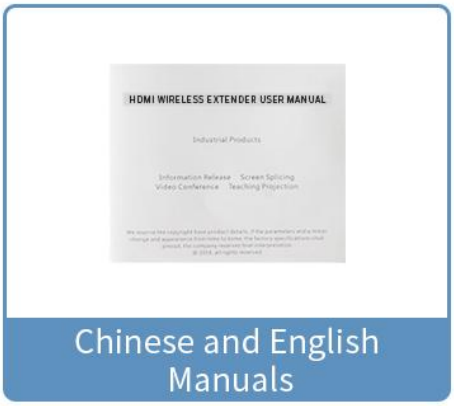
Transmitter X1

Receiver X1

IR Transmitter X1
& IR Receiver X1

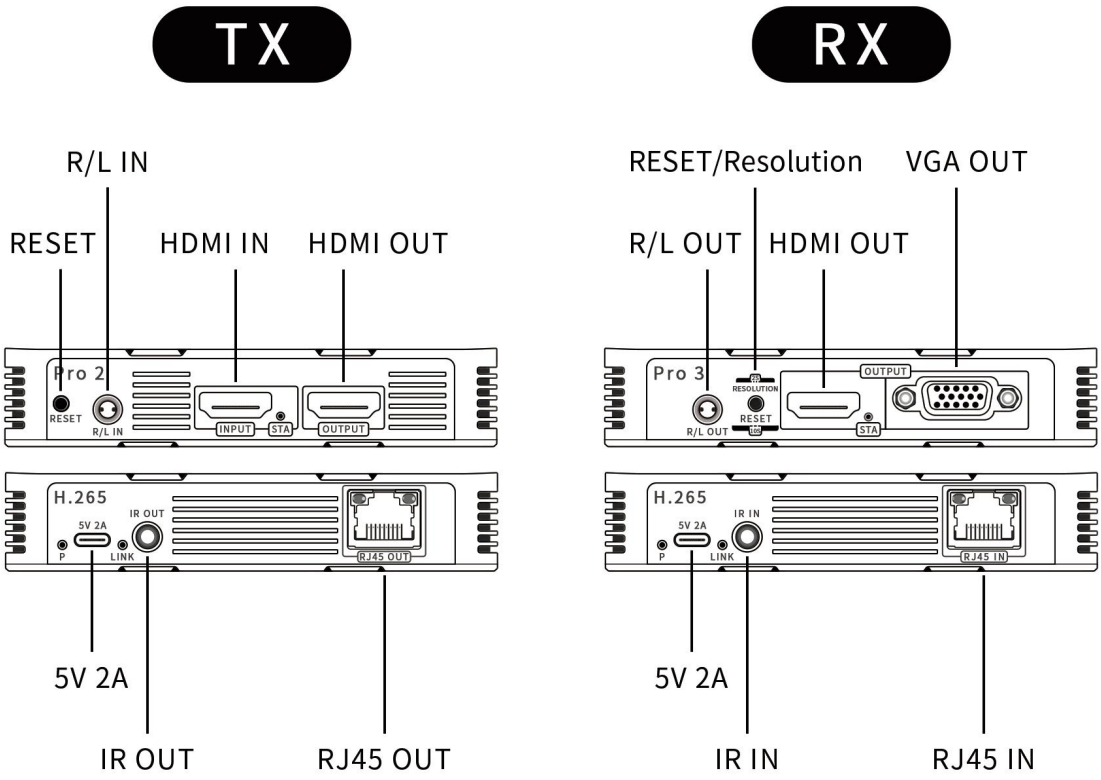
USB Power cable X2 & 5V 2A Charging head X2

5.8G/2.4G Dual-band
Antennas X4



Chinese and English
Manuals

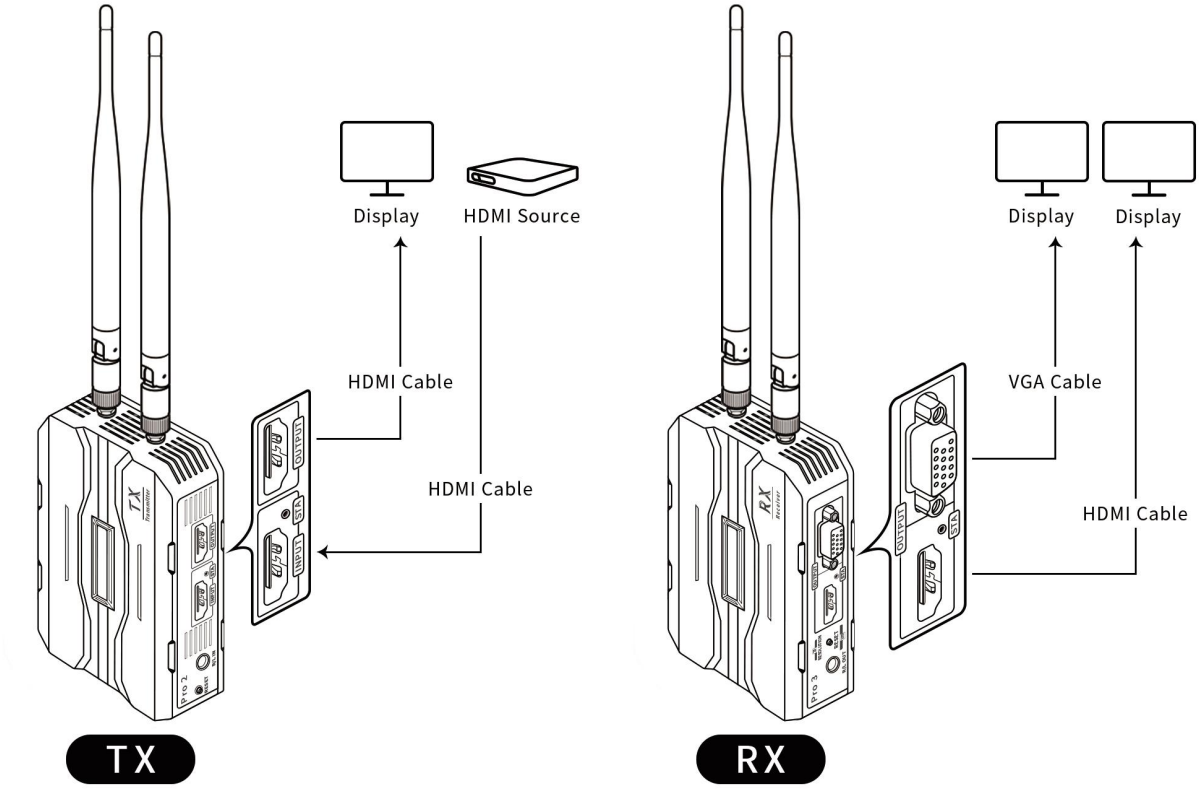
5. Interface Description



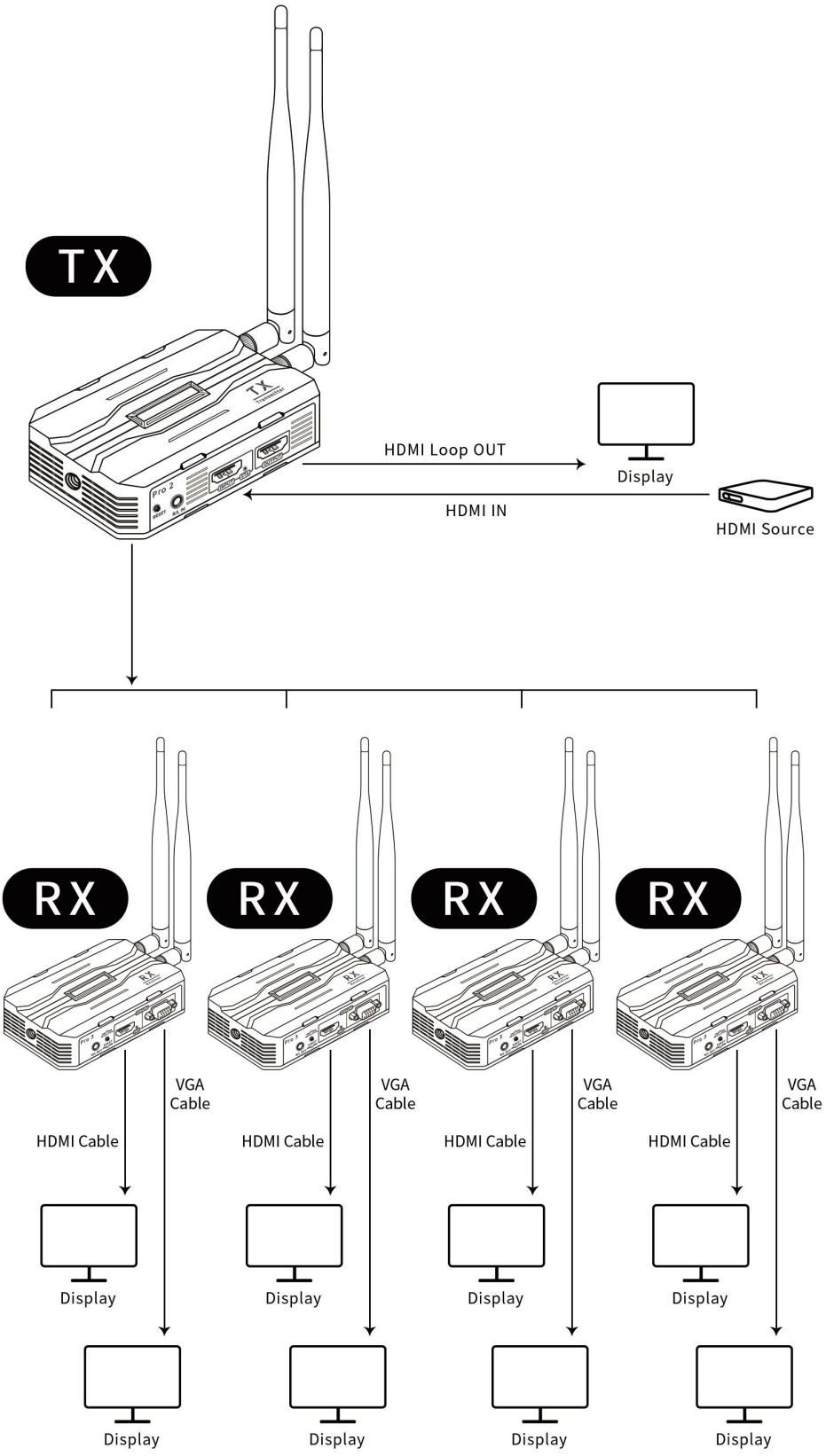
6. Connection Diagram

Note: LM-PRO250-103 and LM-PRO250-203 share the same functions and connection methods; the only difference lies in the supported resolution.

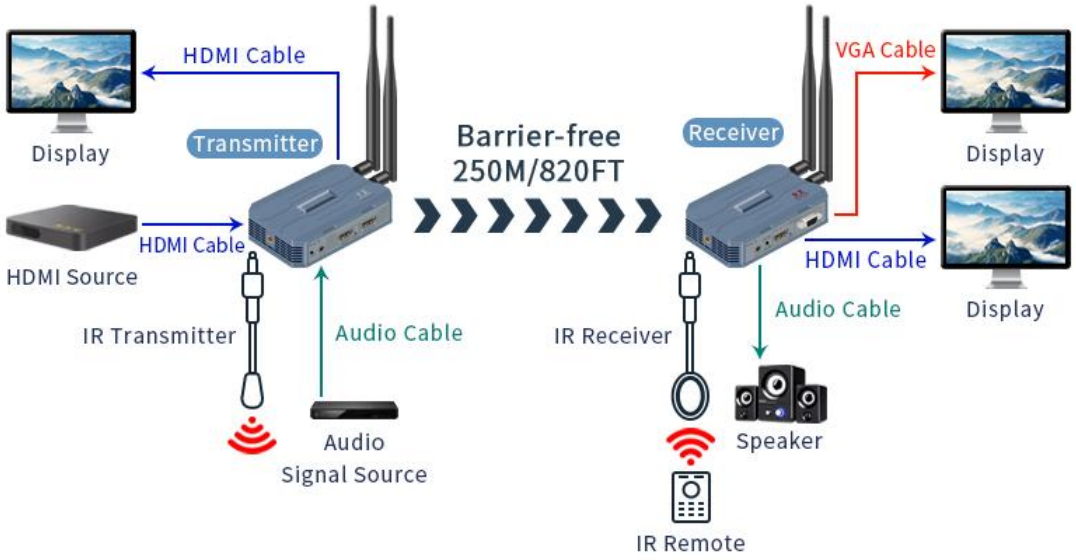
One to One


Display
HDMI Source
HDMI Cable
HDMI Cable
TX
Display
Display
VGA Cable
HDMI Cable
RX

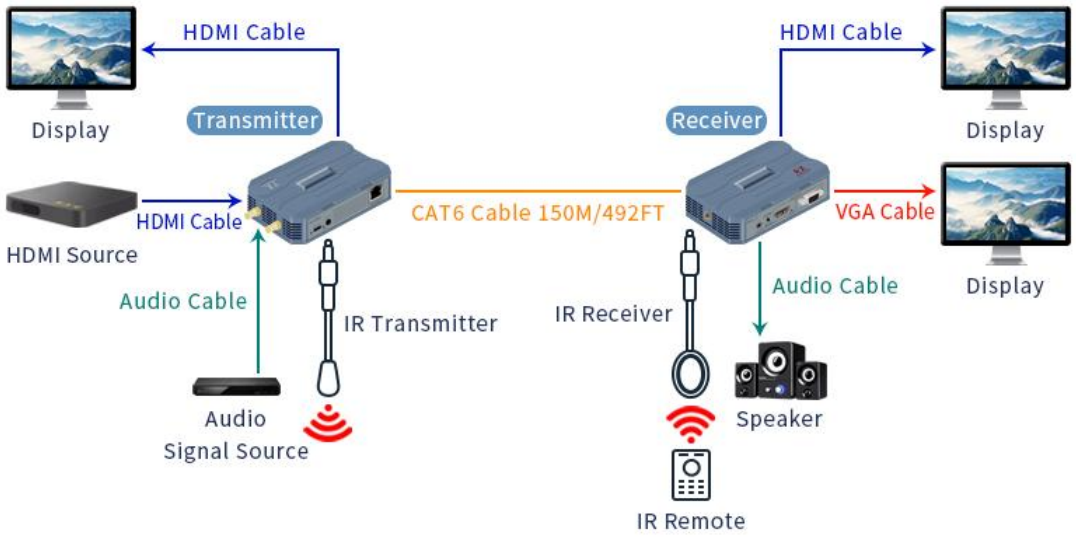
One to Many


TX
HDMI Loop OUT
Display
HDMI IN
HDMI Source
RX
RX
RX
RX
VGA Cable
VGA Cable
VGA Cable
VGA Cable
HDMI Cable
HDMI Cable
HDMI Cable
HDMI Cable
Display
Display
Display
Display
Display
Display
Display
Display

Antenna Transmission



Network Cable Transmission

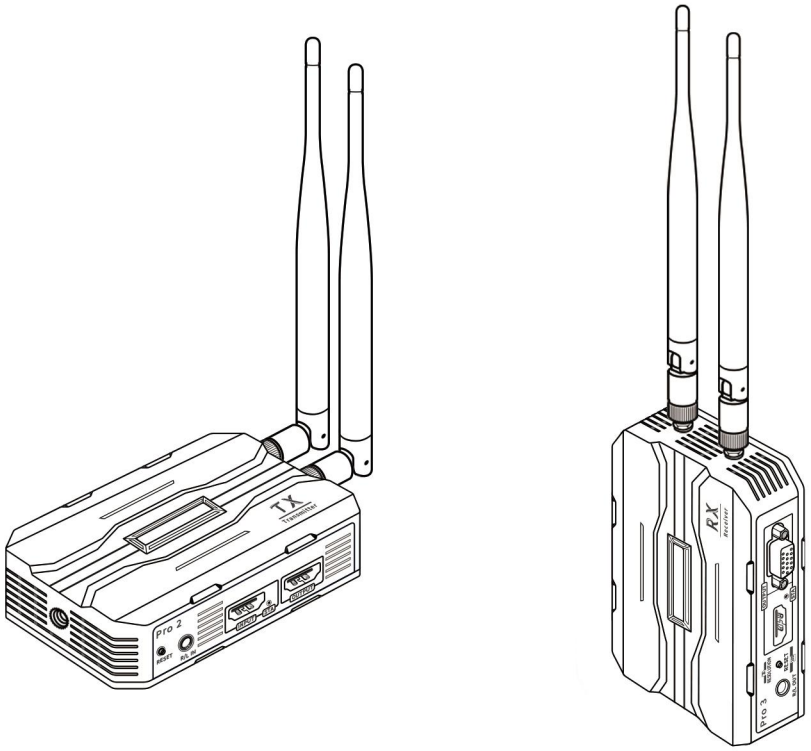


Note: Network cable transmission can be expanded via a network switch to support one transmitter connected to multiple receivers.

7. Connection steps

1. Install the antenna and adjust the angle, placed in a reasonable position

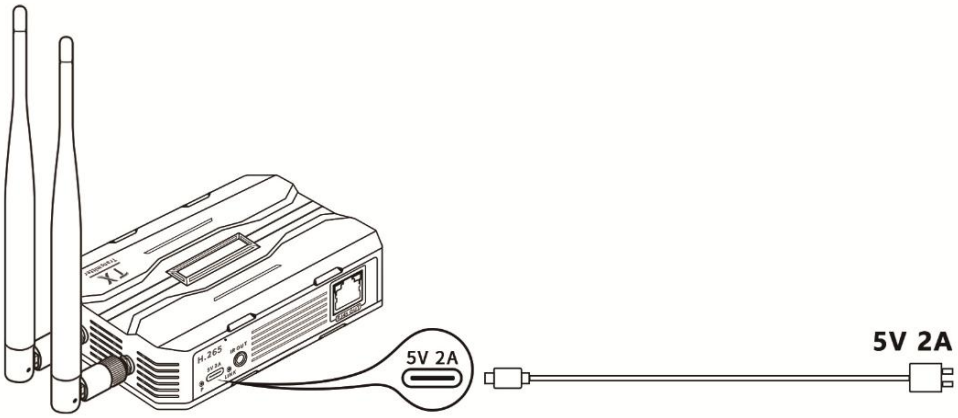
Please install the included antenna to the transmitter (TX) and receiver (RX) respectively and tighten them, and adjust the angle of the antenna to be parallel or 90° upward, avoiding touching or facing the ground.



The equipment should be placed at a suitable location more than 30cm above the ground, and the transmitter and the receiver should be avoided as much as possible between the cover or too much metal shielding objects.

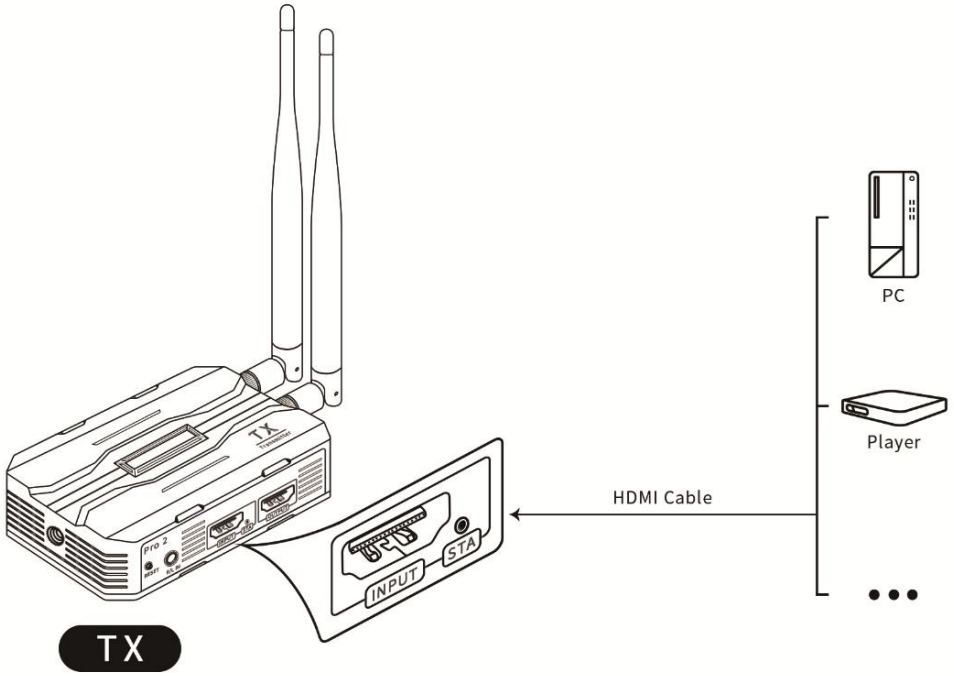
2. Power supply

Please power the transmitter (TX) and receiver (RX) separately. It is recommended to use the original standard charger, if you use a charger or other power supply device, please make sure that the actual working current of the charger and the power supply cable can not be less than 2A.



3. TX HDMI to host

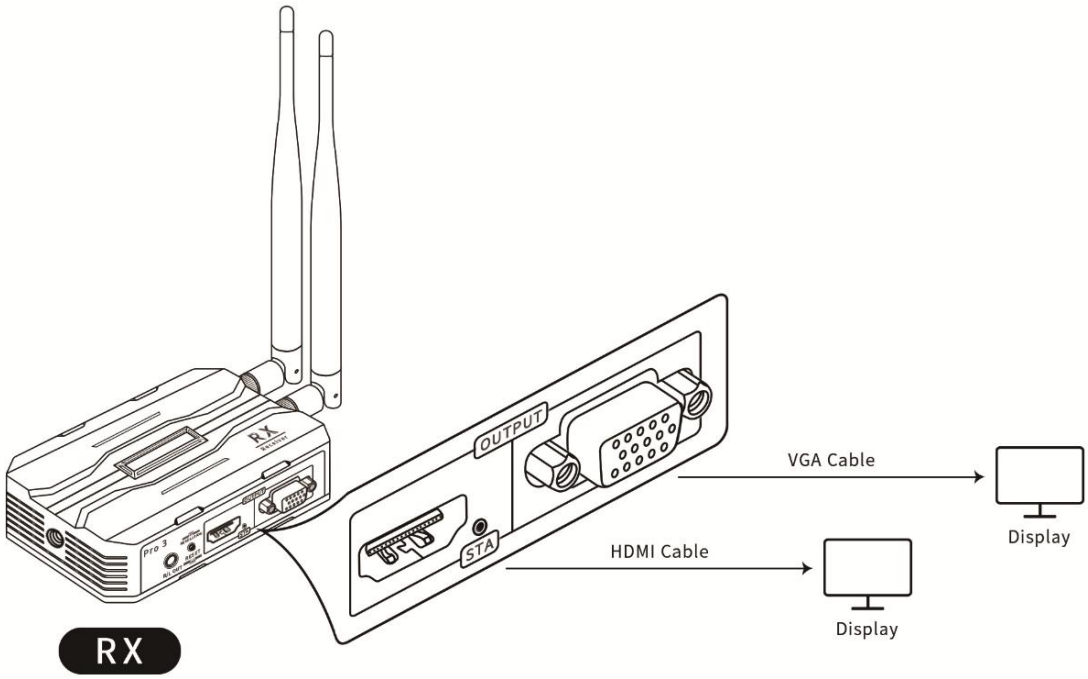
Use a standard HDMI cable ≤ 10m to connect the source to the INPUT connector of the transmitter (TX).



4. RX connection to the display

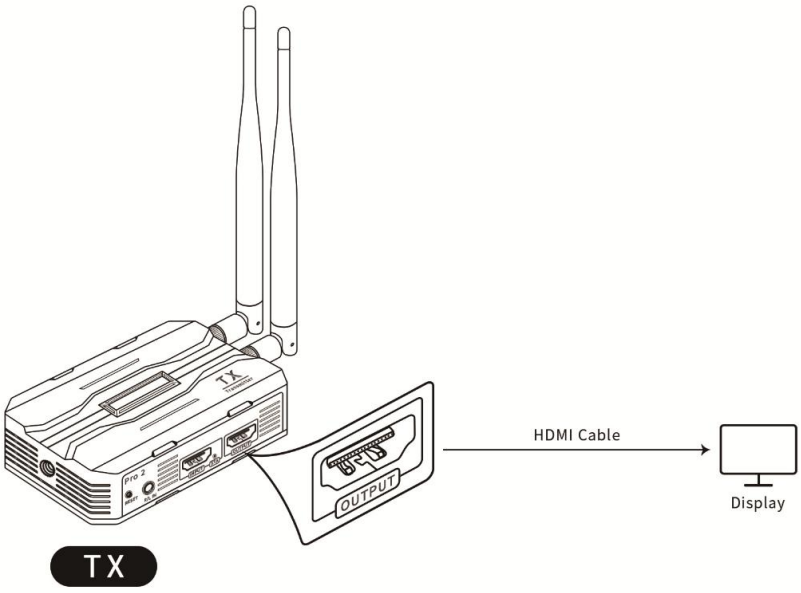
Connect the display to the HDMI OUTPUT connector of the receiver (RX) using a standard HDMI cable of ≤10m.

Use a standard VGA cable ≤ 10m to connect the display to the VGA OUTPUT connector of the receiver (RX), the maximum resolution of the VGA connector supports 1080P (if required).



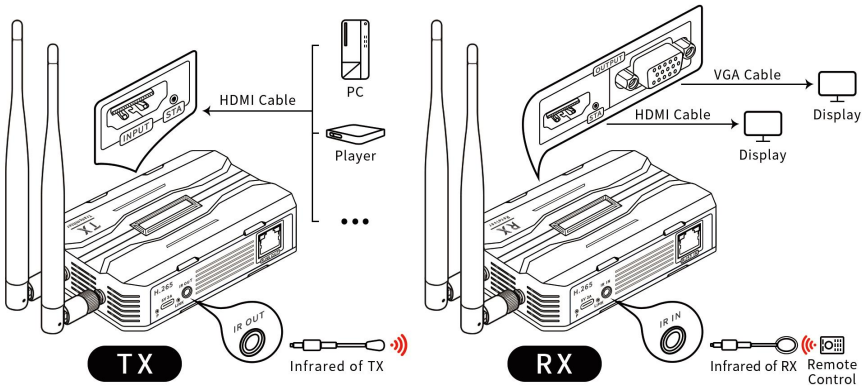
5. TX HDMI OUTPUT connection for display (if required)

Use a standard HDMI cable ≤ 10m to connect the display to the OUTPUT connector of the transmitter (TX).



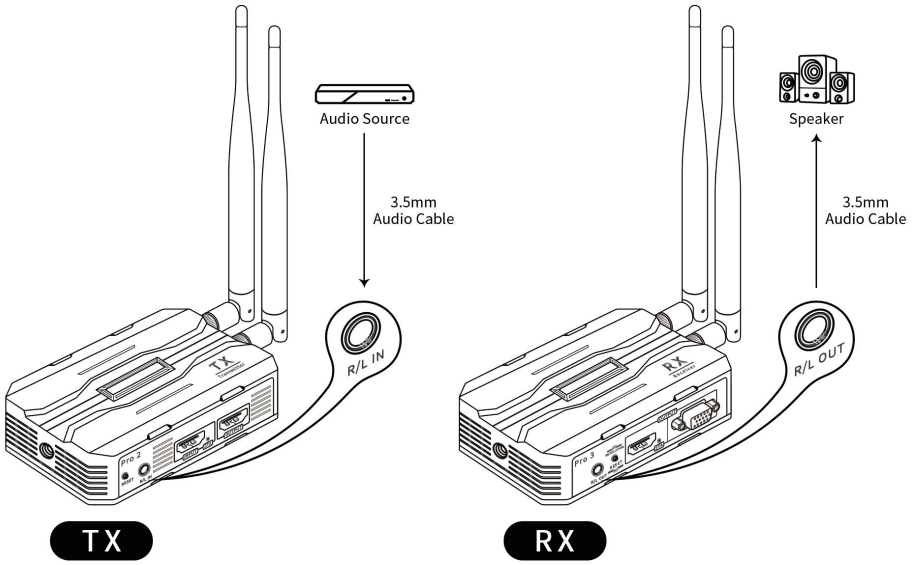
6. IR connection (if required)

A. Use IR transmitter cable (2 sections) to connect to the IR port of HDMI transmitter, and close to the receiver of the signal source remote control.
B. Use IR receiver cable (3 sections) to connect to the IR port of HDMI receiver to use the signal source remote control.



7. Audio connection (if required)

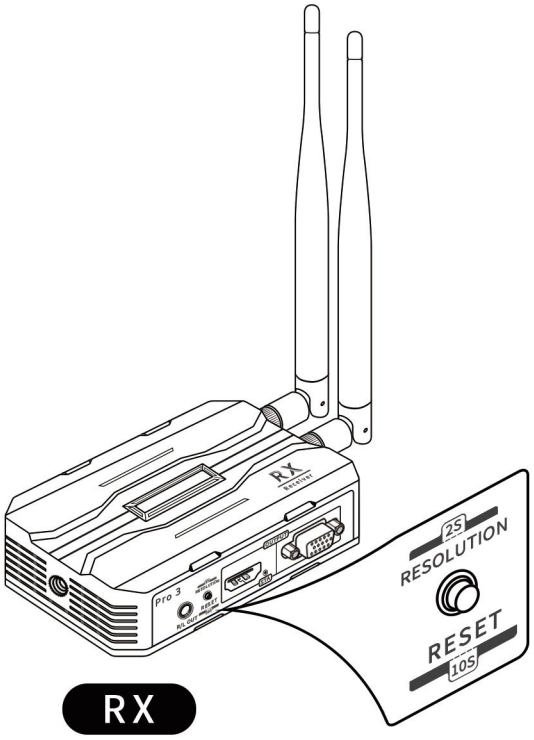
This feature is optional.
The transmitter side uses a 3.5mm audio cable to connect the transmitter R/L IN port to the source audio output port.
The R/L OUT port on the receiver side is connected to an audio device such as a loudspeaker



Note: Transmitter (TX) must be connected to HDMI signal source, without connecting HDMI signal only connect 3.5 audio input does not work.

8. Reset to adjust the resolution (if necessary)

When accessing the screen is not clear or no signal can be short press the receiver (RX) reset button for about 2 seconds, you can cycle switch 2-3 kinds of resolution, switch to the best resolution, this setting power down to save. Or modify the output resolution of the signal host to achieve the best display.

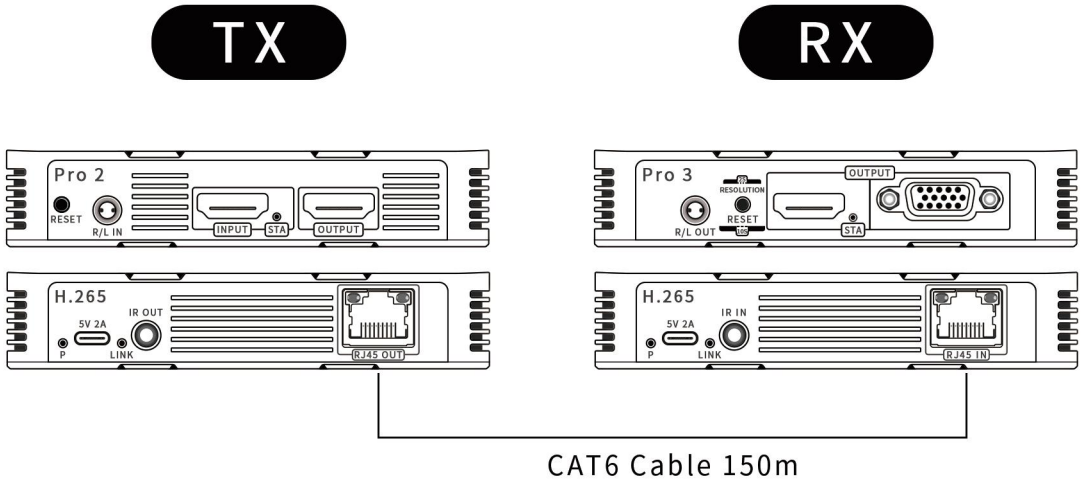


Press for about 2S to adjust
the resolution: 4K@30HZ/1080P/720P

Press for about 10S to RESET

9. Network transmission (if necessary)

If you need to use a network cable to transmit, it is recommended to use CAT5e/CAT6 or above network cable to connect, the longest distance is 150 meters.
When wired connection, if the number of transmitter or receiver (RX) in the same network is more than 1 respectively, please modify the IP of the device, the IP of each device can not be the same, and at the same time, please don't have the same network segment with other network devices, you can modify the network segment.



Note: When using a wired connection with one transmitter (TX) and multiple receivers (RX), manually change the IP address of each receiver (RX) without overlapping.

Default IP address: TCP/IP IPV4 TX:192.168.1.166/RX:192.168.1.167

8. How to use RJ45

1. TX and RX pairing;
2. Set the WIFI channel to avoid interference of multiple devices transmitting signals in the same frequency band;
3. For network cable transmission, connect more receivers (RX) to solve the problem of wireless signal can not penetrate;
4. Set the transmitter HDMI OUT LOOP resolution;
5. Equipment software upgrade.

9. Pairing and Resetting

The device is paired by default when it is shipped from the factory, if you need to add a new receiver and restore the factory settings, please follow the instructions below.

1. Pairing

A. The device should be connected to the signal source and the screen by the above connection method.

B. Use a network cable to connect the transmitter (TX) and receiver (RX), wait about 30 seconds, both ends of the LINK light blinking indicates successful pairing, successful pairing can be unplugged from the network cable to automatically switch to wireless

transmission, about 30 seconds to switch successfully.
C, if you need to use one transmitter with multiple receivers, follow the above method to pair all receivers with the transmitter respectively.

2. Reset

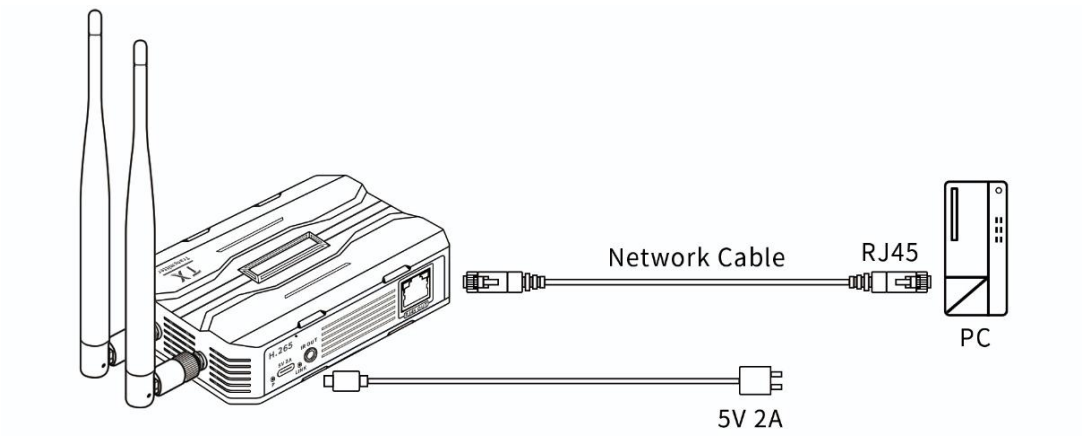
If you need to change the pairing method or abnormal working status, you can restore the factory settings: press and hold the reset button of the transmitter and receiver for about 10 seconds and release it, the LINK goes out to indicate that the factory settings have been successfully restored, and you can set it up again according to your needs.

10. Adjust WIFI channel

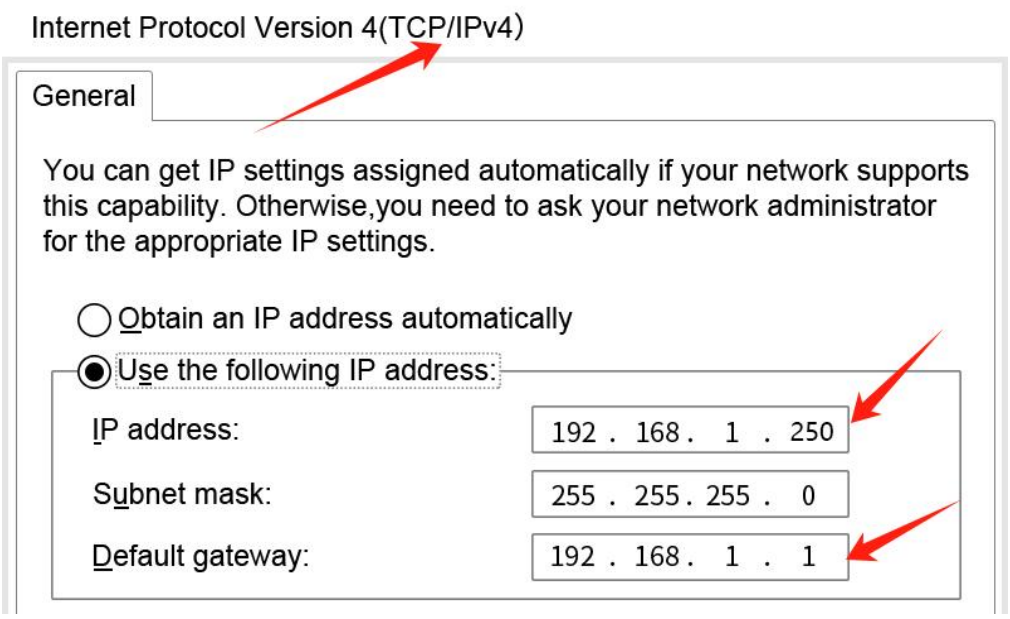
This setting only need to modify the transmitter both port, the receiver follows, the setting method is as follows:
TCP/IP IPV4 TX:192.168.1.166/RX:192.168.1.167

11. Configuration method is as follows:

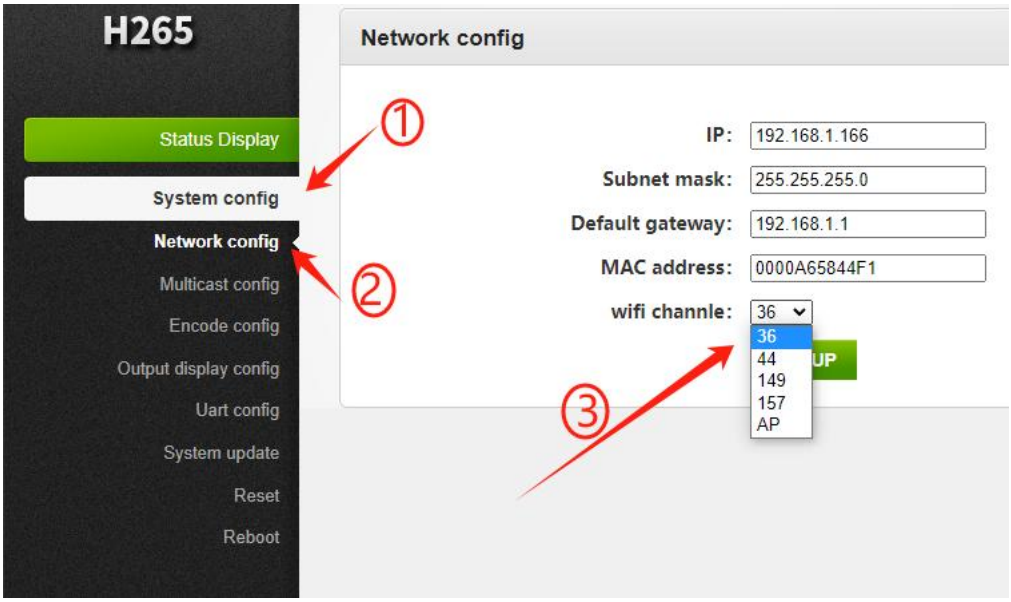
1. Use a network cable to connect the TX of the extender to the PC.



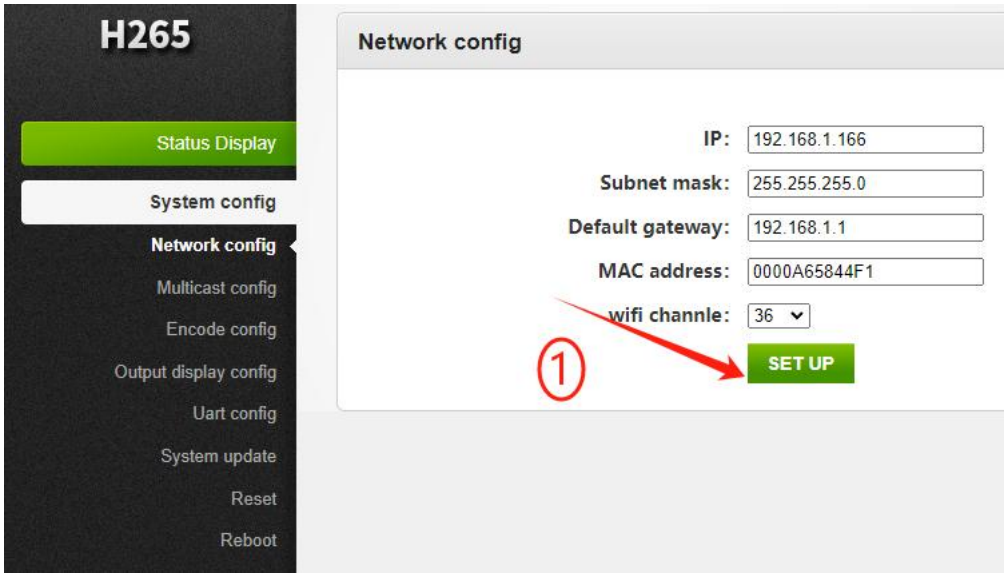
2. Set the IP address of the PC



3. Selecting unused channels

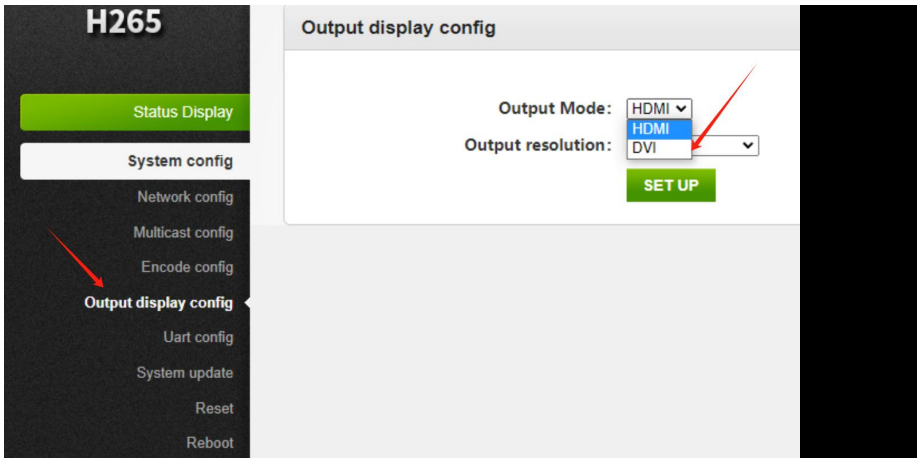


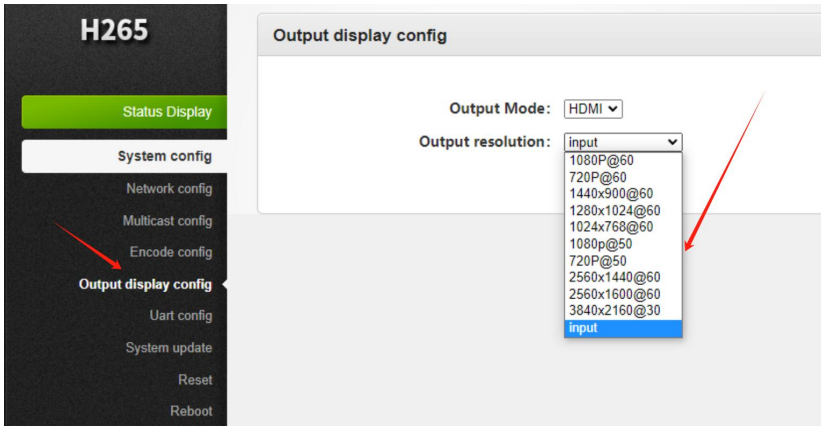
4. Just save it and log in again to confirm the modification is successful.



12. Setting TX HDMI Or DVI Input, and TX HDMI LOOP OUT Resolution

The login steps are the same as adjusting the WIFI channel, only the last step is different.
Note: Setting the resolution is only useful for PRO 2 (4K TX)





13. Fault judgment and treatment

From the indicator lights, the most common malfunctions of the H.265 Pro HDMI wireless transmitter and receiver are the following 2 phenomena

1. The LINK light of HDMI transmitter and HDMI receiver is in blinking status, but there is no image and sound on the display.

A: The flashing status of LINK light indicates that the device has been connected successfully, the screen does not display as it does not support the resolution of the current HDMI wireless transmitter and receiver, please long press the button of HDMI receiver (RX) for about 2 seconds to adjust the resolution of the receiver's output, so that the resolution can be switched cyclically.

2. the LINK indicator of both HDMI transmitter and HDMI receiver are off. the LINK indicator is off, it means that the HDMI transmitter and HDMI receiver are not successfully connected. Please follow the steps below:

1. Make sure the devices have been paired successfully;
2. Please check the power and HDMI signal connection;
3. It is recommended to adjust the position of the device or shorten the reception distance;
4. The device is recommended to be used on the same floor or in the same space and cannot penetrate obstacles such as load-bearing walls.

14. HDMI receiver (RX) does not display, and various problem alerts

1. Receiver (RX) side has been displayed “Connect to TX”

1. Please make sure the equipment has been paired successfully.
2. Please check the transmitter power supply and HDMI signal connection.
3. When the receiver screen has a lag, it is recommended to adjust the position of the device or shorten the receiving distance.

2. Receiver (RX) side shows “No Signal Input”

1. Please check if the source has HDMI signal output.
2. Make sure the output resolution of the signal source is within the supported range. If the resolution is 1080I, please change the HDMI resolution of the signal source device to 1080P or 720P. Please pay special attention to the old DVD, set-top box and camcorder, the default resolution of many of these devices is 1080I.

3. Receiver (RX) side displays “Please pair TX and RX”

The device is not paired, need to re-pair, please refer to the pairing instructions.

15. Other questions

1. Transmission distance is short

1.Signal is weak, please adjust the antenna angle or adjust the equipment placement.
2.Signal can not directly penetrate the load-bearing walls, elevator shafts, tin room and other building structures.
3. Multiple sets of equipment work at the same time, please adjust the WIFI channel to avoid channel congestion.

2. Video lag

1. Weak signal, please refer to the connection steps to adjust the angle and placement of the antenna.
2. Suggest to press reset button or adjust the resolution through the host.
3. Multiple devices work at the same time, please adjust the WIFI channel to avoid channel congestion.

3. Infrared back to the invalid

1. Please refer to the connection instructions to confirm whether the wiring is correct.
2. Please make sure that the host signal source supports 30kHz-60kHz infrared signal remote control.
3. This product is not equipped with a remote control, use the remote control of the host computer to be controlled.

4. WIFI self-organizing network and password problems

1. The product wireless is self-organizing network, only the same model of transmitter and receiver WIFI connection

2. The WIFI password is randomly generated and cannot be accessed. Does not support to connect other wireless devices.

5. Latency issue

1. The delay of this product is equal to 0.1s/100ms, specifically related to the use of the environment and so on.
2. This product is not suitable for games and office and other requirements of 0 latency scenarios.
3. This product does not require any software drive.