

# **LENKENG LKV223P Point To Point Extender User Manual**

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## **Important Safety Notice**

- 1. Please distinguish the transmitter and receiver before installation.
- 2. Do not disassemble the machine to repair the product during the working process to avoid electric shock.
- 3. Please cut off the power before installation. Live installation may damage the equipment.
- 4. Do not expose the devices to rain, moisture and liquid.
- 5. Use a 5V/2A DC adapter only. Make sure the specification matched if using 3rd party DC adapters.

#### Introduction

This HDMI Extender includes a transmitter unit and a receiver unit, allows the HDMI signal to be transmitted up to 70 meters using a Cat6/6A/7 network cable. It adopts a point-to-point connection configuration, supports bi-directional IR pass-back and 3.5 mm stereo audio output. It is perfect for outdoor advertising, monitor system, home entertainment, conference, etc.

#### **Features**

- 1. Zero latency.
- 2. Support up to 4K@30Hz resolution.
- 3. Support CAT6/6A/7 network cables, 1080p@60Hz transmission distance is up to 70 meters, 4K30Hz transmission distance is up to 40 meters
- 4. Support bi-directional IR pass-back function (20 60KHz).
- 5. Support HDR10.
- 6. Support EDID passthrough.
- 7. Transmitter supports HDMI loop-out.
- 8. Receiver supports 3.5mm stereo audio output.
- 9. Lightning Protection, Surge Protection, ESD Protection.
- 10. Support PoC network cable power supply, only TX power supply is needed.

#### **Package Contents**

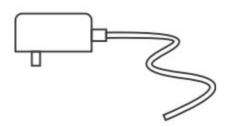
Transmitter unit xl pc



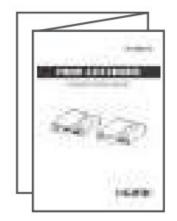
Receiver unit xl pc



DCSV/2A xl pc



User manual xl pc

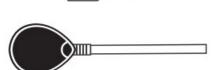


IR blaster extension





IR receiver extension cable xlpc

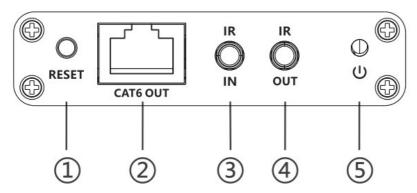


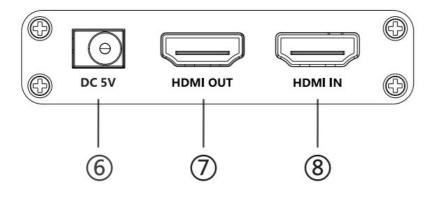
## **Installation Requirements**

1. HDMI source device (compute graphics card, DVD, PS3, )HD monitoring equipment etc. 2. HDMI display device like SDTV, HDTV, projector with HDMI port. 3. UTP/STP CAT6/CAT6A/CAT7 cable. Follow standard IEEE-5688, It is recommended to select a network cable with less loss and crosstalk.

## **Interfaces**

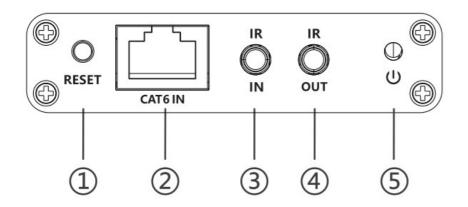
## 1. Transmitter (TX)

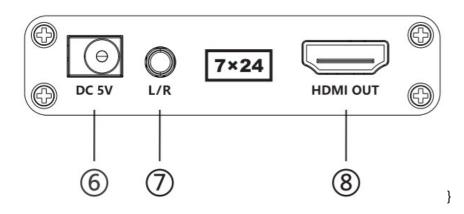




1	Reset button	Press to restart the device
2	RJ45 signal input	Output modulate HDMI Signal
3	IR in	Connect the IR receiver extension cable to ensure that the remote control used is within the range of the IR receiving device
4	IR out	Connect the IR blaster extension c able, please keep the infrared tran smitter as close as possible to the signal source device when using.
5	Power/Signal indicator	<ul><li>a. When power is on and no HDMI signal is transmitted, the indicator f lashes.</li><li>b. When power is on and HDMI si gnal is transmitted, the indicator is always on.</li></ul>
6	DCSV input	Connect to the 5V/2A DC power a dapter.
7	3.5mm L/R out	Connect headphones or power am plifiers to output stereo audio.
8	Input modulated HDMI signal.	Connect to a HDMI display device.

Receiver (RX).





1	Reset button	Press to restart the device
2	RJ45 signal input	Input modulated HDMI signal.
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4	IR out	Connect the IR blaster extension ca ble, please keep the infrared trans mitter as close as possible to the si gnal source device when using.
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6	DCSV input	Connect to the 5V/2A DC power ad apter.
7	3.5mm L/R out	Connect headphones or power am plifiers to output stereo audio.
8		HDMI output Connect to a HDMI di splay device.

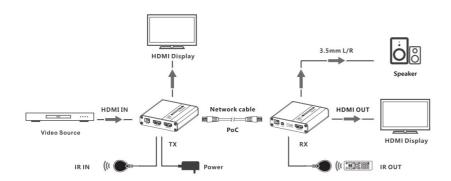
## **Disclaimer**

The product name and brand name may be registered trademark of related manufactures. TM and ® may be omitted on the user manual. The pictures in this user manual are just for reference. The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing

Administrator, Inc. We reserve the rights to make changes without further notice to a product or system described herein to improve reliability, function or design.

#### **Installation Procedures**

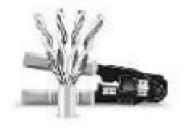
#### Connection



**Note:** When using the 3.5mm stereo audio jack, please switch the audio output format of the signal source to PCM format.

The network cable should follow the standard of IEEE-568B. It is recommended to select a network cable with less loss and crosstalk.

- 1. Orange/white
- 2. Blue
- 3. Orange
- 4. Blue/white
- 5. Green/white
- 6. Green
- 7. Brown/white
- 8. Brown



#### **Connection instruction**

- 1. Connect the source device to the HDMI in port of the transmitter with an HDMI cable, and connect the HDMI out port of the receiver to the display device with another HDMI cable.
- 2. Connect the CAT out port of the transmitter and the CAT in port of the receiver via a network cable (CAT6/CAT6A/CAT7).
- 3. If using HDMI loop out, connect the display device to the HDMI OUT port of the transmitter.
- 4. Plug the power supply into the device to get started.

**[NOTE]:** It is recommended to use a length range within 2-70m network cable. If the cable is too short, there may be no display output because the signal is too strong. If the cable is too long, the output may be with poor quality.

#### **IR User Guide**

- 1. IR blaster extension cable should plug in the IR OUT port of the transmitter or receiver, IR receiver extension cable should plug in the IR IN port of the transmitter or receiver.
- 2. The emitter of the IR blaster extension cable should be as close as possible to the IR receiving window of the source device.
- 3. Face the receiving head of the IR receiver extension cable to the user for convenient remote control.

### **FAQ**

## Q: There is no output on screen when all connections are correct?

A: 1) Please make sure the HDMI cables support the resolution of the output signal from the source device

#### Q: Black screen happened on the display/monitor? connection.

A: 1) Check if the length of the cable is within the specified range. 2) Reset the transmitter to re-built the

## Q: The display shows unusual color or no sound?

A: 1) Reset the transmitter or receiver to re-built the connection. 2) Check if the HDMI cables are connected well.

3) Reconnect the network cable.

Items		Specification
Power Supply	Voltage/Current	DCSV/2A
	Power consumption	TX<4W IO(<4W
HDMI Performa nce And Interfa ce	HDMI compliance	HDMI 1.4
	HDCP compliance	HDCP 1.4
	HDMI resolution	800×600, 1024×768, 1280×720, 1280×960, 1366×7 68, 1440×900, 1680×1050, 1920×1080, 4801@60H z, 480p@60Hz, 576i@50Hz,576p@50Hz, 720p@50 /60Hz, 1080i@50/60Hz, 1080p@24/25/30/50/60Hz, 3840×2160@24/25/30Hz
	Supports audio formats	PCM, LPCM, DTS HD, DTS Audio
	Input and output TMDS signal	0.7-1.2Vp-p(TMDS)
	Input and output DDC signal	5Vp-p(TTL)
	Input cable length	s8m(AWG24)
	Output cable length	s8m(AWG24)
Transmission D istance	Cat6/6A/7	1080p@60Hz transmission 70 meters 4K@30Hz transmission 40 meters
Protection Leve	Electrostatic protection of the whole m achine	Implementation of the standard: IEC61000-4-2la Contact discharge level 2 (±4KV) 1 b Air discharge Level 3 (±8KV)
Operating Envir onment	Working temperature	-20-60°C
	Storage temperature	-30-70°C

## **Documents / Resources**



<u>LENKENG LKV223P Point To Point Extender</u> [pdf] User Manual

LKV223P Point To Point Extender, LKV223P, Point To Point Extender, Point Extender, Extender