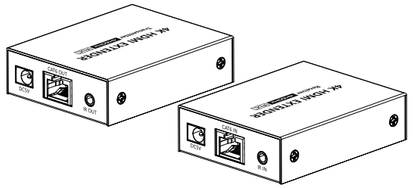
User Manual

4K@60Hz HDMI Point to Point Extender



HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

• Important Safety Instructions:

1. To prevent electric shock, please ensure that all apparatus is properly grounded.
2. Do not place this apparatus near or over a radiator or heat register, or where it is exposed to direct sunlight.
3. Place the device in a well-ventilated area, do not block any ventilation openings.
4. Do not expose this apparatus to rain or place it near water. Any liquid that goes into the apparatus may cause a failure, fire, or electric shock.
5. Do not place the device on an uneven or unstable surface. The device may fall resulting in a malfunction.
6. Never insert anything metallic into the open parts of this apparatus. This may cause a danger of electric shock.
7. If a three-party power supply is used, please ensure that the power supply specifications meet the product requirements.

• Introduction

This is an HDMI point-to-point extender kit, it can realize zero-latency transmission. The 4K@60Hz HDMI signal can be extended by 50m through CAT6/6A/7 network cable. It supports HDMI loop out, IR passthrough, etc. This kit is a reliable, ultra-high-definition video transmission solution, which is widely used in security monitoring, home theater, broadcasting, training and other fields.

• Features

1. Zero-latency transmission.
2. Extend 4K@60Hz HDMI signal up to 50m over Cat6/6A/7 cable.
3. Support HDR10.

4. Support EDID passthrough and auto downscaling.
5. Support PoC network cable power supply, only TX power supply is needed.
6. The transmitter supports HDMI loop out.
7. Support IR passthrough.
8. Lightning protection, surge protection, ESD protection.
9. Plug and play.

• Package Contents

Transmitter x1

Receiver x1

DC5V2A x1

User manual x1

IR blaster extension cable x1

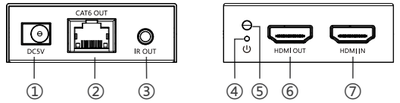
IR receiver extension cable x1

• Installation Requirements

Item	Description	Requirement
Signal source	Devices with HDMI port (PC, DVD, NVR, etc.)	HDMI cable ≤5m
Cable	CAT6/6A/7，following standard IEEE-568B	CAT6/6A/7≤50m
Display device	TVs, projectors, etc. with HDMI port	HDMI cable ≤5m

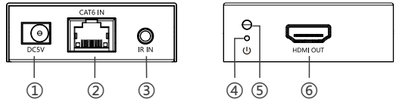
• Panel Description

1. Transmitter



①	Power input	Connect with DC 5V power adapter
②	RJ45 output	Connect with CAT6/6A/7 network cable
③	IR OUT	Connect with IR blaster extension cable
④	Reset Hole	Press the pinhole reset button with a straightened paper clip
⑤	Power Indicator	When there is power, the indicator will light solid blue
⑥	HDMI Output	Connect with local HDMI display device with HDMI cable
⑦	HDMI Input	Connect with HDMI source device with HDMI cable

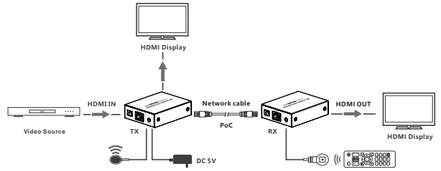
2. Receiver



①	Power input	Spare power port（Powered by TX）
②	RJ45 input	Connect with CAT6/6A/7 network cable
③	IR IN	Connect with IR receiver extension cable
④	Reset Hole	Press the pinhole reset button with a straightened paper clip
⑤	Power Indicator	When there is power, the indicator will light solid blue
⑥	HDMI Output	Connect with HDMI display device with HDMI cable

• Installation Procedures

1. Connection Diagrams



2. Connection Instructions

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) use a Cat6/6A/7 cable to connect the RJ45 port of the transmitter and receiver.
3) If using HDMI loop out, connect the display device to the HDMI OUT port of the transmitter.

4) If using IR passthrough, the IR blaster extension cable should plug in the IR OUT port of the transmitter, the IR receiver extension cable should plug in the IR IN port of the receiver.
5) Plug the power supply into the devices to get started.

3. IR User Guide

IR blaster

1. Power
2. IR Signal
3. Null

IR receiver

1. Power
2. IR Signal
3. Grounding

1) IR blaster extension cable should plug in the IR OUT port of the transmitter, IR receiver extension cable should plug in the IR IN port of the 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) Point the remote control at the receiving head of the IR receiver extension cable to operate.

• FAQ

Q: The devices are connected correctly, but why is there no image displayed?

A:

1) Please make sure the HDMI cable meets the transmission requirements. (e.g. 4K HDMI cable)
2) Please check and make sure the network cable is connected well.
3) Restart the transmitter or receiver by pressing the reset button.

Q: Why does the display occasionally have a black screen?

A:

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

Q: Why is the display color abnormal 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.

Technical Parameters

Items	Transmitter	Receiver
Video		
Input interface	1x HDMI Type A Female	1x RJ45 Female
Output interface	1x HDMI Type A Female 1x RJ45 Female	1x HDMI Type A Female
HDMI Length	≤5m	≤5m
Maximum transfer rate	18Gbps	
Maximum transmission bandwidth	600MHz	
EDID passthrough	Yes	
Compatibility	HDMI 2.0（Deep color, 4K, HDR, YUV4:4:4)	
	HDCP 2.2, HDCP1.4	
Resolutions	480i@60Hz、480p@60Hz、576i@50Hz、576p@50Hz、720p@50/60Hz、1080i@50/60Hz、1080p@50/60Hz、3840x2160@24/25/30/50/60Hz、3440x1440、2560x1440、2560x1080、2048x1080、1920x1440、1920x1080、1280x960、1280x800、1280x768、1680x1050、1360x768、1366x768、1600x900、1024x768、800x600	
Transmission distance	4K transmission distance 50m 1080p transmission distance 70m	
Audio		
Input interface	1x HDMI Type A Female	N/A
Output interface	1x HDMI Type A Female	1x HDMI Type A Female
Audio formats	LPCM/DTS-HD/DTS-Audio/Dolby Digital 5.1CH/Dolby Atmos	
Command Signal		
IR interface	1x 3.5mm IR OUT Female	1x 3.5mm IR IN Female
Receiving range	≤5m	

Infrared frequency	20KHz~60KHz	
Power		
Power Supply	DC5V/2A	PoC（Powered by TX)
Power Consumption	TX+RX < 5.5W	
Operating Environment		
Working temperature	-20℃~60℃	
Storage temperature	-30℃~70℃	
Humidity	0~90%RH（No condensation)	
Physical Properties		
Housing	Metal	
Weight	TX：130g	RX：130g
Color	Black	
Dimensions	75.0(L)*60.0(W)*21.0(H)mm	
Protection	ESD protection 1a Contact discharge level 2 (±4KV) 1b Air discharge level 3 (±8KV) Implementation of the standard: IEC61000-4-2	
	Lightning protection, Surge protection	
Certifications	FCC/CE/RoHS	

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