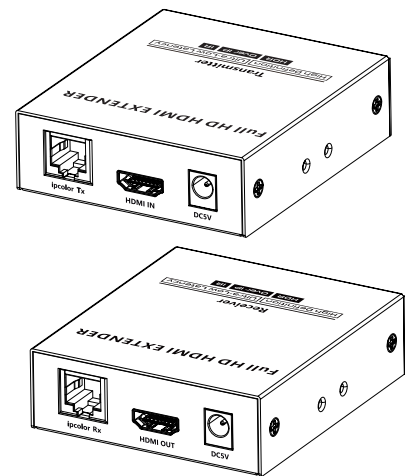


# Full HD HDMI over IP EXTENDER



## • Important Safety Instructions

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

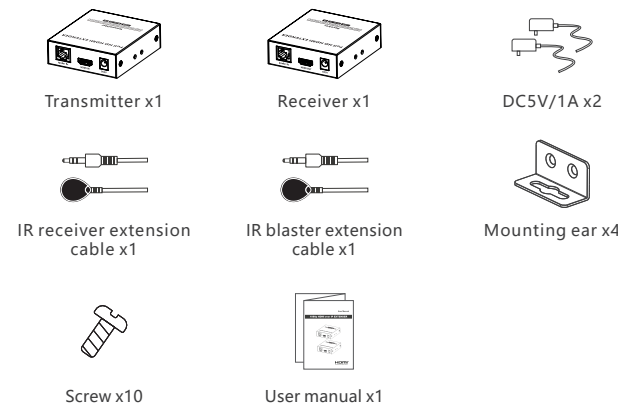
## • Introduction

This is an HDMI over IP extender kit, including a transmitter and a receiver. With this device, HDMI signals can be transmitted uncompressed and low-latency over Cat6/6A/7 cable at 1080p@60Hz resolution. The transmission distance is up to 150 meters. This HDMI extender kit has features including IR passthrough. It supports point-to-point connection or one-to-many connection through gigabit switch, and cascading of switches is also supported. This extender kit is a reliable video transmission and distribution solution which can be widely used in security monitoring, rail transit, broadcasting, smart cities, home theatre and other fields.

## • Features

1. Adopting ipcolor PIXEL technology can realize uncompressed and low-latency transmission.
2. Support up to 1080p@60Hz resolution, including 1920x1200/1920x1080, backward compatible.
3. Video signals can travel up to 150 meters over CAT6 or higher network cable.
4. Support one-to-many connection through the gigabit switch, or switch cascade.
5. Support HDR10.
6. Support EDID Passback.
7. Support IR passthrough.
8. Lightning protection, surge protection, ESD protection.

## • Package Contents

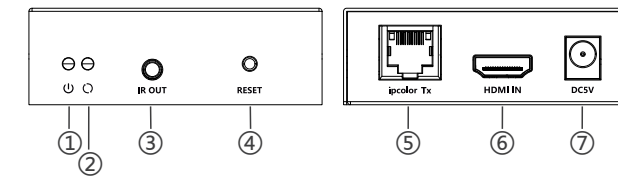


## • Installation Requirements

Item	Description	Requirement
Signal source device	PC, DVD, NVR, etc. with HDMI port	HDMI cable ≤ 5m
Cable	CAT6/6A/7, following standard IEEE-568B	CAT6/6A/7 ≤ 150m
Display device	TV, projector, LED screen, etc. with HDMI port	HDMI cable ≤ 5m
Network switch	The switch(es) is required for one-to-many and switch cascading connections	Gigabit switch

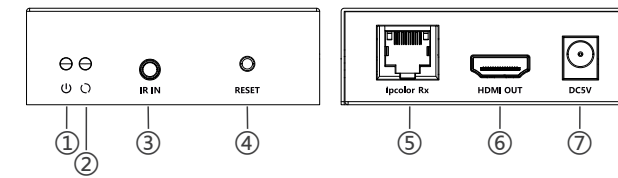
## • Panel Description

### 1. Transmitter



① Power indicator (blue)	1) <b>Light off</b> : No power supply 2) <b>Steady on</b> : The power is on 3) <b>Flash</b> : The factory settings have been restored
② Data transmission indicator (orange)	1) <b>Light off</b> : The transmitter and the receiver have not established a connection 2) <b>Slow flash</b> (every 1 second): The transmitter and the receiver are connected but no video data transmission 3) <b>Quick flash</b> (every 200ms): The video signal is connecting 4) <b>Steady on</b> : The video data is transmitting
③ IR OUT	Connect with IR blaster extension cable
④ RESET	1) Press to restart 2) Press and hold for 5 seconds to restore the factory settings, and then let go when the power indicator flashes
⑤ ipcolor Tx (RJ45 port)	Connect with the network cable
⑥ HDMI IN	Connect with HDMI source device
⑦ DC5V	Connect with DC 5V/1A power adapter

### 2. Receiver



① Power indicator (blue)	1) <b>Light off</b> : No power supply 2) <b>Steady on</b> : The power is on 3) <b>Flash</b> : The factory settings have been restored
② Data transmission indicator (orange)	1) <b>Light off</b> : The transmitter and the receiver have not established a connection 2) <b>Slow flash</b> (every 1 second): The transmitter and the receiver are connected but no video data transmission 3) <b>Steady on</b> : The video data is transmitting
③ IR IN	Connect with IR receiver extension cable
④ RESET	1) Press to restart 2) Press and hold for 5 seconds to restore the factory settings, and then let go when the power indicator flashes
⑤ ipcolor Rx (RJ45 port)	Connect with the network cable
⑥ HDMI OUT	Connect with HDMI display device
⑦ DC5V	Connect with DC 5V/1A power adapter

## Installation Procedures

### 1. How to make a network cable

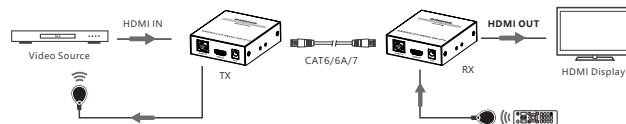


Follow the standard of IEEE-568B:

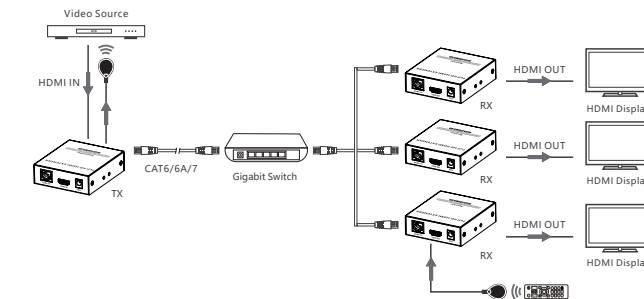
- 1-white and orange 2-orange 3-white and green 4-blue  
5-white and blue 6-green 7-white and brown 8-brown

### 2. Connection Diagrams

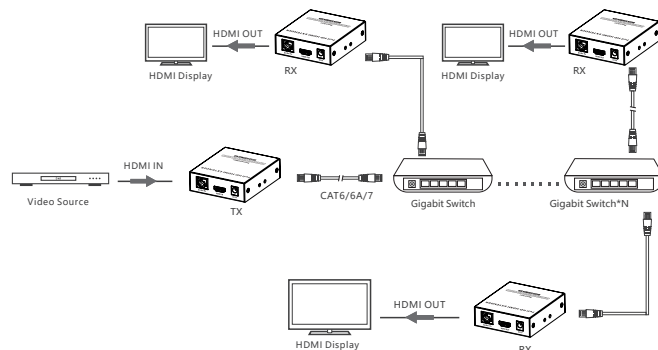
#### 2.1 One-to-one connection:



#### 2.2 One-to-many connection (through gigabit switch):



#### 2.3 One-to-many connection (gigabit switch cascading):



### 3. 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) If it's one-to-one connection, then use a network cable to connect the RJ45 port of the transmitter and receiver. If it is one-to-many connection, then use the gigabit switch as a bridge to connect the transmitter and the receivers with the network cables respectively.
- 3) Plug the power supply into the devices to get started.

### 4. 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: Why the data transmission indicator is off?  
A:  
1) Please check whether all equipment is powered on and the network cable is connected properly.  
2) Try to change a network cable to connect.
- Q: Why is the status indicator has been flashing slowly?  
A:  
1) Please check whether there is HDMI signal input for the TX.

- 2) Try to connect the signal source directly to the display device, or change the signal source and HDMI cable and test again.

Q: Why is the output image unstable?

- A:  
1) Check whether the length of the network cable connected from TX to RX is within the specified range.  
2) The length of HDMI cable is recommended to be  $\leq 5$  meters.  
3) Press the "reset" button on TX and RX to restart and reconnect.

### Technical Parameters

Item	Transmitter	Receiver
<b>Video Signal</b>		
Input interface	1x HDMI	1x RJ45
Output interface	1x RJ45	1x HDMI
HDMI cable	$\leq 5$ m	$\leq 5$ m
Compatibility	HDMI 1.4 (HDR10) HDCP 1.4	
Resolutions	1080p@24/25/30/50/60Hz, 720p@50/60Hz, 1024x768@60Hz, 1280x800@60Hz, 1280x960@60Hz, 1280x1024@60Hz, 1440x900@60Hz, 1600x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1200@60Hz, 480P@60Hz, 576P@50Hz, 1400x1050@60Hz, 1366x768@60Hz, 1360x768@60Hz, 1280x768@60Hz	
Connection types	One-to-one connection One-to-many connection Switch cascading	
Transmission distance	CAT6/6A/7 $\leq 150$ m	

Transmission latency	16ms-33ms	
<b>Audio Signal</b>		
Input interface	1x HDMI	1x RJ45
Output interface	1x RJ45	1x HDMI
HDMI out	DTS-Audio/Dolby Digital 5.1/LPCM2.0	
Audio sampling rate	32kHz, 44.1kHz, 48kHz, 88kHz, 96kHz, 176kHz, 192kHz	
Audio bit depth	16bit, 24bit	
<b>Command Signal</b>		
IR interface	1x 3.5mm IR OUT	1x 3.5mm IR IN
IR receiving range	$\leq 5$ m	
IR frequency	20kHz~60kHz	
<b>Power</b>		
Power supply	DC5V/1A	DC5V/1A
Power consumption	< 4W	< 4W
<b>Operating Environment</b>		
Working temperature	-20°C~60°C	
Storage temperature	-30°C~70°C	
Humidity	0~90%RH (no condensation)	
<b>Physical Properties</b>		
Housing	Iron	
Weight	TX: 157g	RX: 157g
Color	Black	

Dimensions	85(L)*76(W)*25(H)mm
Protection	ESD protection 1a Contact discharge level 2 ( $\pm 4$ KV) 1b Air discharge level 3 ( $\pm 8$ KV) Implementation of the standard: IEC61000-4-2 Lightning protection, surge protection

### DISCLAIMER

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