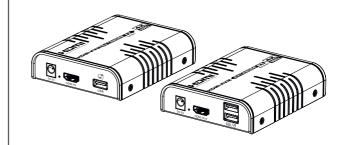
# **User manual**

# 4K@60Hz HDMI KVM EXTENDER



### Disclaimer

The product name and brand name may be registered trademark of related manufactures.  $^{\mathbb{N}}$  and  $^{\mathbb{N}}$  may be omitted on the user manual. The pictures in this user manual are just for reference. We reserve the rights to make changes without further notice to a product or system described herein to improve reliability, function or design.



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### **Important Safety instructions:**

- Do not mix up the HDMI EXTENDER sender and HDMI EXTENDER receiver.
- 2. Do not plug-in/out the cables , when it is in using.
- 3. Use DC 5V power supply only. Make sure the specification matched if using 3rd party DC adapters.

### Introduction

This product is a 4K@60Hz HDMI KVM extender kit consisting of a sender and a receiver. The 4K@60Hz HDMI signal can be extended up to 120m via Cat 6 and above network cables, supporting one-to-one connection, one-to-many connections via gigabit switch, or switch cascades, It also supports KVM function, and can be widely used in meetings, home entertainment, educational presentations, and other fields.

#### Features

- 1. High-definition and low-latency transmission.
- 2. Support up to 4096x2160@60Hz resolution, backward compatible.
- 3. Compatible with Cat5/5e/6 or above network cables, transmission distance of Cat6 cable is 120 meters.
- 4. Support one-to-one or one-to-many connections through the gigabit switch.
- 5. Support KVM control signal passback.
- 6. Firmware can be upgraded through Micro USB.
- 7. Lightning protection, surge protection, ESD protection.
- 8. Supports stable 24/7 operation.

# • Package Contents



HDMI EXTENDER sender TX ×1pcs



HDMI EXTENDER receiver Rx ×1pcs



DC5V/1A ×2pcs



User Manual ×1pcs



USB Cable x1pcs

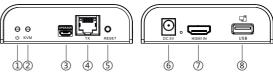
Note: above accessory contents is regular package for a kit. If buy HDMI extender TX or HDMI extender RX separately, the package contents would be different.

# • Installation Requirements

- HDMI source device(computer graphics card, DVD,PS3, HD monitoring equipment etc).
- 2. HDMI display device like SDTV, HDTV, projector with HDMI port.
- 3. Network cables: UTP/STP Cat5/5e/6 network cables, which following the standard of IEEE-568B.

# Panel Description

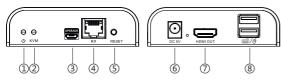
#### 1. HDMI EXTENDER TX (Sender)



(	12 3 4	(5) (6) (7) (8)
1	Power indicator	The indicator will turn on when power up
2	KVM indicator	Light flashing: The KVM data is transmitting     Steady on: The computer and the USB port are connected
3	Micro USB port	Used for firmware upgrading
4	RJ45 signal output	Connect with the network cable
(5)	Reset button	Restart the device
6	Power input	Connect with DC5V/1A power adapter
7	HDMI input	Connect with the source device
8	USB port	Connect to the computer with USB cable

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#### 2. HDMI EXTENDER RX(Receiver)



1	Power indicator	The indicator will turn on when power up
2	KVM indicator	Light flashing: The KVM data is transmitting     Steady on: The mouse and the keyboard are connected
3	Micro USB port	Used for firmware upgrading
4	RJ45 signal input	Connect with the network cable
(5)	Reset button	Restart the device
6	Power input	Connect with DC5V/1A power adapter
7	HDMI output	Connect with HDMI display device
8	USB port	Connect with keyboard and mouse

### Installation Procedures

### 1. How to make a Cat5e/6 network cable

Follow the stanard of IEEE-568B:

1-Orange/white 4-Blue 7-Brown/white

2-Orange 5-Blue/white 8-Brown

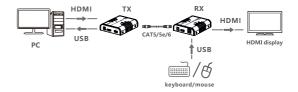
3-Green/white 6-Green



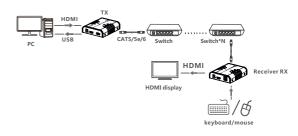
#### 2. Connections

120m for one to many connection, 200m for one to one connection

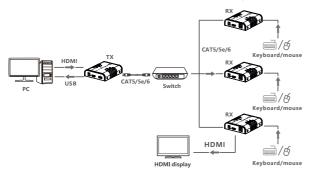
#### 2.1 Point to Point connection:



**2.2 LAN Switch Cascade Connection:** By using the LAN switch/ router to realize unlimited extension.



2.3 One-to-many Connection: By using network router/switch, one sender to several receivers, realize extender & splitter function.



Note: It is recommended that Gigabit Ethernet switches (1000Mbps) be used in LAN.

#### 3. Connection Instructions

- Connect the source device to the HDMI IN port of the sender 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 a one -to -one connection, use a network cable to connect the RJ45 port of the sender and receiver. If it is a one -to -many connection, use the gigabit switch as a bridge to connect the sender and the receivers with the network cable respectively.
- 3) If using the KVM function, connect the keyboard/mouse to the USB port of the receiver and connect the computer to the USB port of the sender via the USB cable
- 4) Plug the power supply into the devices to get started.

### • FAO

**Q**: TV display "Waiting for connection ..."?

**A**: Please check if the power supply of TX (Sender) and switches (if used) is connected, and make sure connecting cable is firmly.

**Q**: TV display "Please check the TX input signal"?

A: 1) please check if there is a HDMI signal input of TX.

2) Try to connect the signal source directly to display device to see if there is singal output from source device or change the signal source, HDMI cable and try again.

O: Display not fluent, not stable?

- A: 1) Please check the cable length between the TX to switch, the switch to the RX and the connection between each level is within the required range.
  - 2) Click the "reset" button on the TX/RX front panel, reset and reconnect.

# Specification

Item	Sender	Receiver	
Video			
Input interface	1x HDMI	1x RJ45	
Output interface	1x RJ45	1x HDMI	
HDMI length	≤ 5m	≤ 5m	
Maximum transfer rate	18Gbps		
Compatibility	HDMI 2.0		
Compatibility	HDCP 1.4/HDCP 2.2		
Resolutions 4096x2160@24/30/50/60Hz, 3840x2160@24/30/5 1080P@24/25/30/50/60Hz, 720P@50/60Hz, 576P( 480P@60Hz, 1920x1200, 1680x1050, 1600x900, 12 1280x960, 1280x720, 1024x768, 800x600		20P@50/60Hz, 576P@60Hz, 0x1050, 1600x900, 1280x1024,	

	One to one: 200m over cat6/6a/7				
Transmission distance	One to many: 80m over cat5 100m over cat5e 120m over cat6/6a/7				
Transmission latency	1080P: 80~110ms 4K@60Hz: 120~170ms				
Audio signal					
Input interface	1×HDMI	1×RJ45			
Output interface	1×RJ45	1×HDMI			
HDMI output	LPCM 2.0				
Power					
Power Supply	DC 5V/1A	DC 5V/1A			
Power Consumption	TX ≤ 3.5W	RX ≤ 2.5W			
Operating Environment					
Working temperature	- 20°C~60°C				
Storage temperature	- 30℃~70℃				
Humidity	0~90%RH (no condensation)				
Physical Properties	s				
Housing	Aluminium(Top cover); Iron(Bottom cover)				
Weight	240g	243g			
Color	Black				
Dimensions	109.6(L)x89.5(w)x26.3(H)mm*2pcs				
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				