



## HHE-60LKVM

HDMI EXTENDER OVER LAN  
WITH 60M KVM (IR)



The HDMI Extender over Single Cat5e/6 with IR extends high definition video and audio signals and IR, at a distance of up to 196ft/60m over a single Cat5e/6 cable. Features EQ management, supports Network cable length matching settings. With only one cost effective Cat5e/6 cable, high definition sources with HDMI outputs can be connected to high definition displays with HDMI inputs over long distances. Deep color video, DTS-HD or Dolby TrueHD audio is supported and compatible with the extender. In addition, the extender is also equipped with pass-through which allows for source control. Specially you can use mouse and keyboard to control it.

The extender includes two units: transmitting unit and receiving unit. The transmitting unit is used to capture the HDMI input with IR signals and carries the signals via one cost effective Cat5e/6 cable. The receiving unit is responsible for equalizing the transmitted HDMI signal and reconstructing I control signals. The extender offers the most convenient solution for HDMI extension over a single Cat5e/6 with long distance capability, and is the perfect solution for any application.

## FEATURES :

- \* Allows HDMI Audio /Video and IR signals to be transmitted over a single Cat5e/6 cable.
- \* Supports EQ management, network cable length matching settings.
- \* Support Power over cable function.
- \* Transmission Range: Extends 1080p resolution up to 196ft/60m over a single Cat5e or Cat6 cable.
- \* Works with HDMI and HDCP compliant devices
- \* Supports up to 1080p High Definition resolution.
- \* Compact design for an easy and flexible installation.
- \* Supports mouse and keyboard extension.

## SPECIFICATIONS :

Brand	HOC
Video Bandwidth	Single-link 165Mhz [4.95Gbps]
Video Support	480i/480/720/1080i/1080p@60
Audio Support	Surround Sound (up to 7.1 ch) or stereo digital audio
Transmission Range	HD [1080p 24-bit color] - up to 60m [196ft]
Input TMDS Signal	3.3 volts
Input DDC Signal	5.0 volts/P-P
ESD Protection Human Body model	+/- 8 kV (air-gap discharge)
	+/-4 kV (contact discharge)
RJ-45 connector	WE/SS 8P8C
HDMI connector	Type A 19 pin female
3.5mm connector	(TX and RX) IR Receiver/IR Blaster

## MECHANICAL SPECS

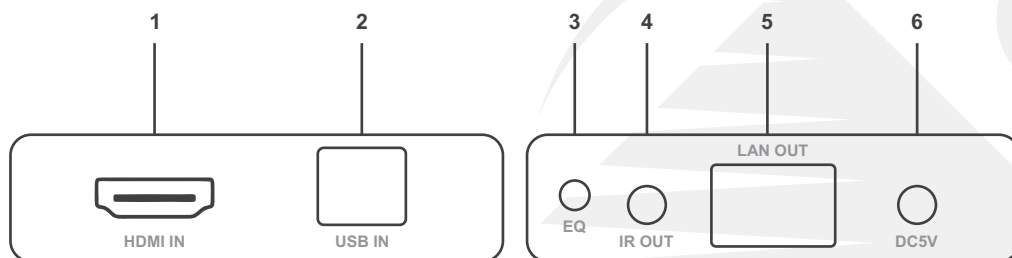
Housing	Metal enclosure
Power Supply	5V1A DC
Power consumption	1.5 watts (TX); 1.0 watts (RX)
Operation temperature	32~104 °F
Storage temperature	-4 ~ 140 °F
Relative humidity	20~90 % RH (no condensation)

## PACKAGE CONTENTS :

* HDMI Transmitter	1 Pc
* HDMI Receiver	1 Pc
* Windband IR Tx cable	1 Pc
* Windband IR Rx cable	1 Pc
* 5V1A DC Power Supply Adaptor	2 Pc
* USB cable	1 Pc
* Mounting Buds With Screw	4 Pc
* Product Manual	1 Pc

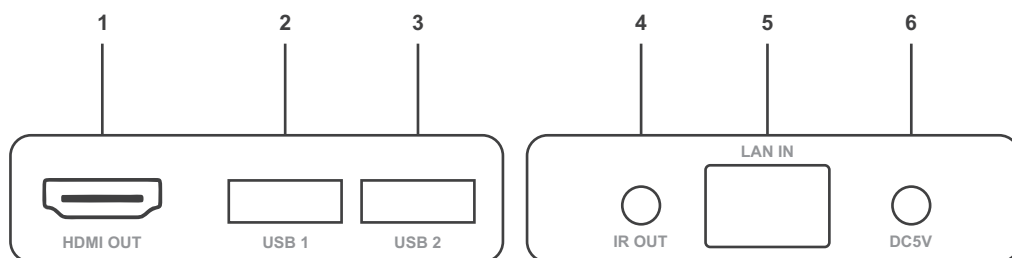
## PANEL DESCRIPTION :

### TRANSMITTING UNIT



- 1. HDMI IN :** This slot is where you connect the HDMI output port of your source equipment such as DVD/Blu-ray players or Set-Top-Box with an HDMI cable.
- 2. USB IN :** Connect to signal sources (laptop,desktop etc.)
- 3. EQ :** Network cable length matching settings.
- 4. IR OUT :** Connect the IR Blaster cable included in the package for IR signal transmission. Place the IR blaster in direct line-of-sight of the equipment to be controlled.
- 5. LAN OUT :** Connect the CAT output of the transmitter with the CAT input of the receiver with CAT5E/6 cable.
- 6. DC 5V :** Connect from 5V DC power supply into the unit and connect the adaptor to an AC outlet.

### RECEIVER UNIT



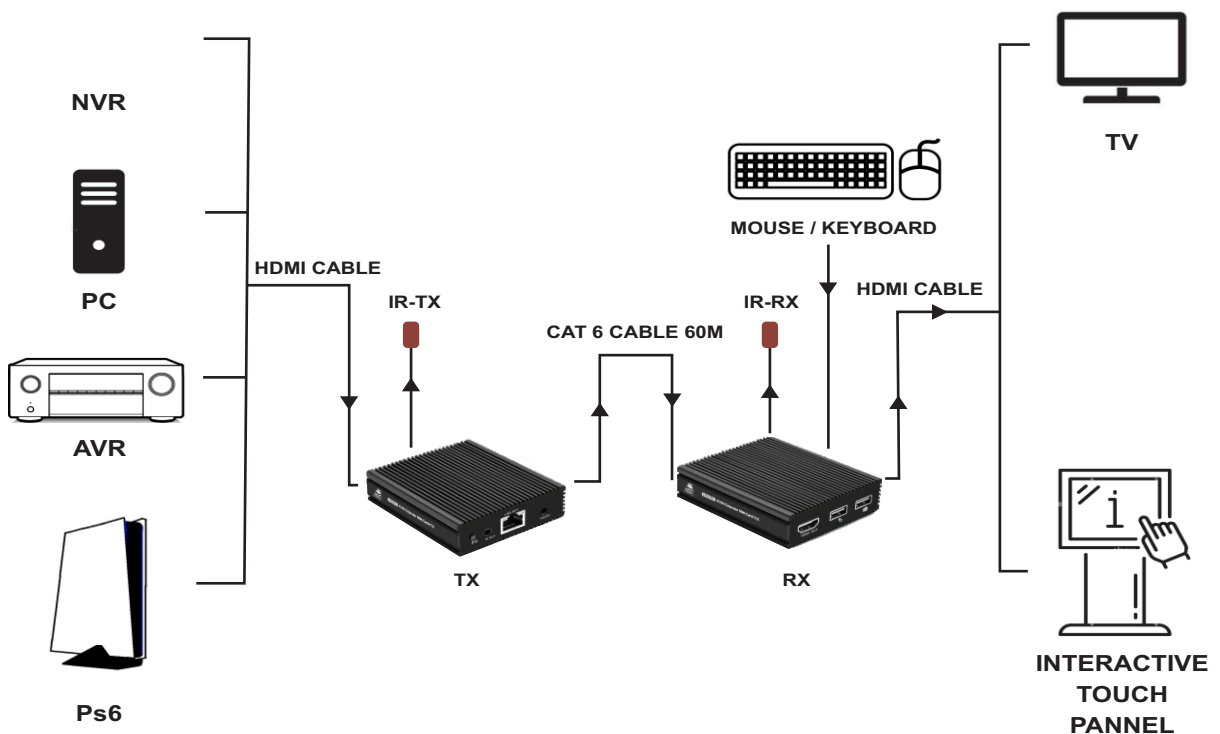
- 1. HDMI OUT :** This slot is to connect the HDMI input port of your display such as an HDTV.
- 2. USB :** USB-A(mouse): Connect to mouse to remotely control output devices.
- 3.USB-(Keyboard) :** Connect to keyboard to remotely control output devices
- 4. IR IN:** Connect to the IR Receiver for I signal reception. Ensure that remote being used is within the direct line-of-sight of the IR receiver.
- 5. LAN IN:** Connect the CAT input of the receiver with the CAT output of the transmitter With CAT5E/6 Cable.
- 6. DC 5V:** Connect from 5V DC power supply into the unit and connect the adaptor to an AC outlet.

## CONNECT AND OPERATE :

1. Connect a source such as a Blu-Ray Player, game console, A/V Receiver, Cable or Satellite Receiver, etc. to the HDMI input and connect the PC with the USB input via the USB cable on the Transmitting unit. Transmitting unit.
2. Connect a display such as an HDTV or HD Projector to the HDMI output and connect the mouse, key board to the USB -A ports on the Receiving unit.
3. Connect a single Category 5e/6 up to 164f/50m to the output of the Transmitting unit, and the other end to the input of the Receiving unit.
4. For power, plug both the Transmitting unit and Receiving unit with the included power supplies.
5. Power on each device in the same sequence (receiver and transmitter will already be powered when either unit is plugged in.)

At this point the display connected should display the source signal connected to the extender set. If no signal is being displayed, press the transmitter EQ button. A 24 Hz vertical refresh rate may work better than 60 Hz or higher. Use the source remote at the receiver emitter to test IR functionality. If the IR remote function is not responding, check the emitters to ensure they are placed correctly and are plugged into the correct IR jacks on the Extender set receiving and transmitting units.

## APPLICATION EXAMPLE :



## Wideband IR(30KHz---60KHz) Introduction



**IR RECEIVER**



**IR BLASTER**

### **IR BLASTER (TX)**

**To control the source :** Plug I Blaster into IR TX port of transmitter unit; place blaster in front of the IR eye of the source.

### **IR RECEIVER (RX)**

**To control the source :** Plug I Receiver into IR RX port of receiver unit; place receiver at or near Display.