

VALUE HDMI Splitter 1x3 with Extender 1x2 over Twisted Pair, 40m

14.99.3464

User Manual



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, or exposed it to direct sunlight.
- 3) Place the device in a well-ventilated area, do not block any ventilation openings.
- 4) 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.
- 5) Never insert anything metallic into the open parts of the appliance. There is a risk of electric shock.
- 6) If a third-party power supply is used, please ensure that the power supply specifications meet the product requirements.
- 7) The device should be repaired only by a qualified technician.

I. Introduction

This is a HDMI Splitter Extender Kit, which distributes 1 HDMI input signal to 3 signal outputs and extends two signals up to 40 meters at 4K30Hz resolution. It supports bi-directional IR passthrough, RS-232 control and 3.5mm L/R audio output functions. It is suitable for outdoor advertising, studios, multimedia classrooms, etc.

II. Features

1. Zero-latency transmission.
2. Extends a 4K@30Hz HDMI signal up to 40m
3. Supports HDR10
4. Distributes and extends 1 HDMI source to 2 HDMI displays.
5. Supports CAT6/6A/7 network cable, which can transmit 1080p signal up to 70 meters and 4K30Hz signal up to 40 meters.
6. Supports power over network cable, only the transmitter needs to be powered.
7. The transmitter supports HDMI loop out.
8. Supports bi-directional IR passthrough (20 - 60KHz)

III. Package Contents



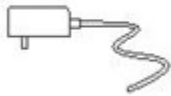
Transmitter 1x



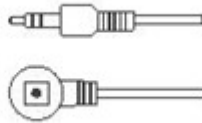
Receiver 2x



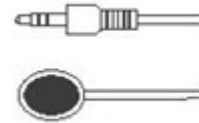
User manual 1x



DC12V/1A 1x



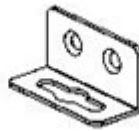
IR receiver extension cable 2x



IR blaster extension cable 1x



Terminal block (RS-232) 1x



Mounting ear 2x



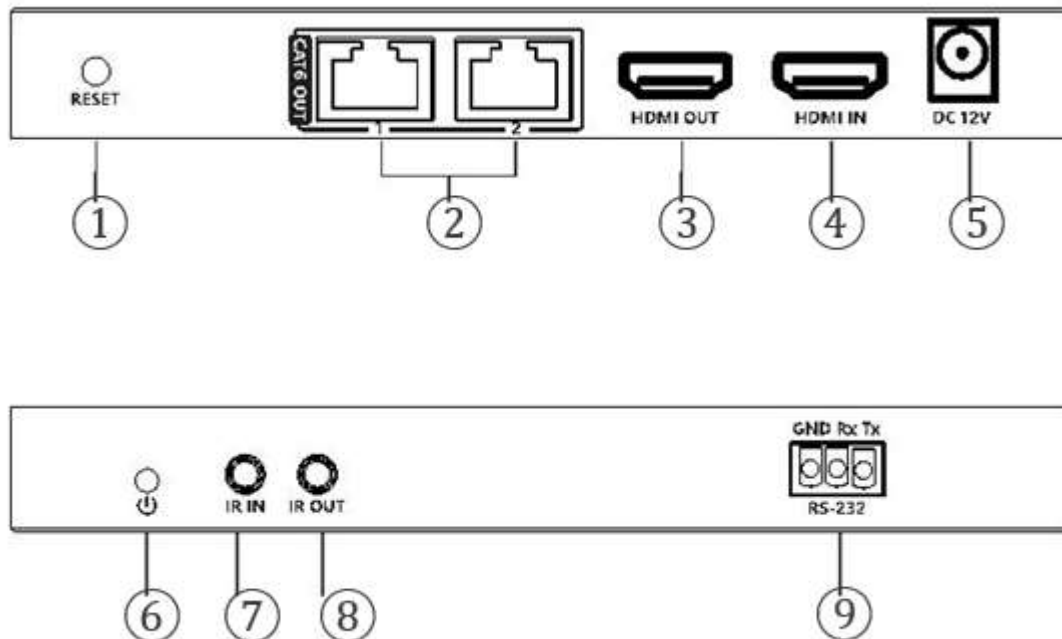
Screw 8x

IV. 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≤40m
Display device	TVs, projectors, etc. with HDMI port	HDMI cable ≤5m

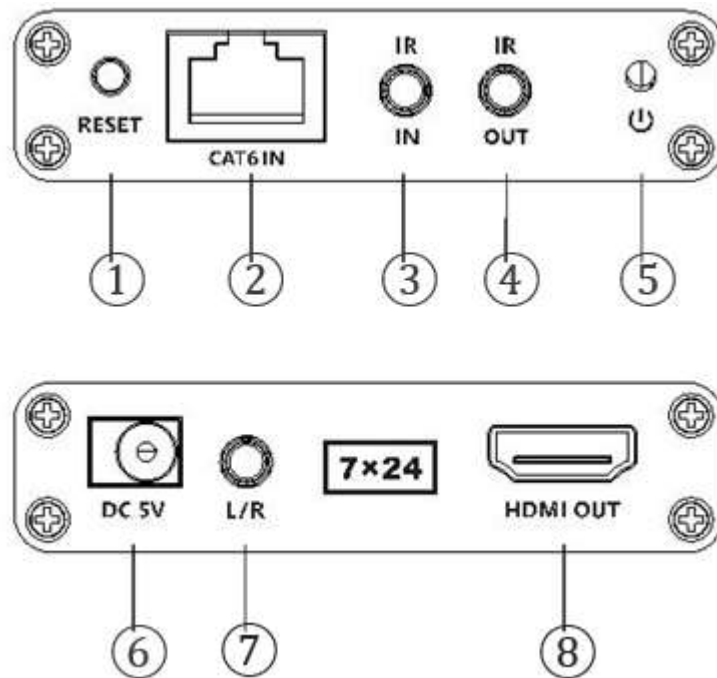
V. Panel Description

1. Transmitter (TX)



1	Reset	Press to reset
2	RJ45 Signal Output	Connect with CAT6/6A/7 network cable
3	HDMI Signal Output	Connect with local HDMI display device with HDMI cable
4	HDMI Signal Input	Connect with HDMI source device with HDMI cable
5	Power Input	Connect with DC12V/1A power adapter
6	Power Indicator	a. When power is on and no HDMI signal is transmitted, the indicator flashes. b. When power is on and HDMI signal is transmitted, the indicator is steady on.
7	IR in	Connect with IR receiver extension cable
8	IR out	Connect with IR blaster extension cable
9	RS-232	Connection to a control unit (e.g. computer) for the input of control commands for management

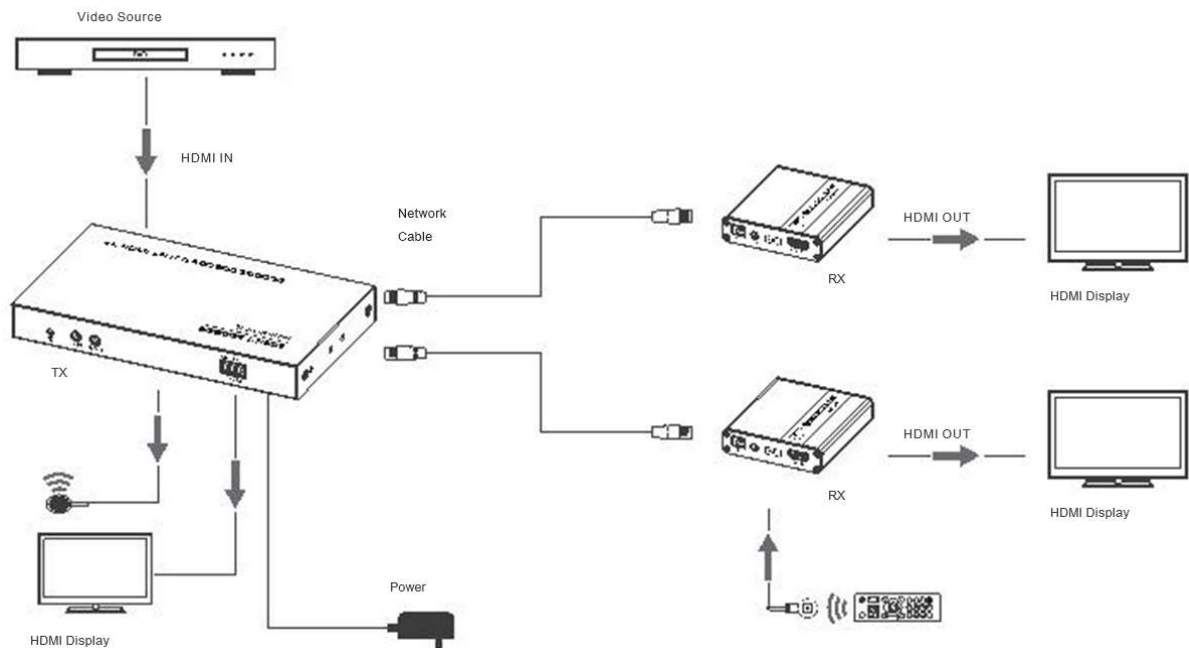
2. Receiver



1	Reset	Press to reset
2	RJ45 Signal Input	Connect with CAT6/6A/7 network cable
3	IR In	Connect with IR receiver extension cable
4	IR out	Connect with IR blaster extension cable
5	Power Indicator	<p>a. When power is on and no HDMI signal is transmitted, the indicator flashes.</p> <p>b. When power is on and HDMI signal is transmitted, the indicator is steady on.</p>
6	Power input	Connect with DC5V/1A power adapter (no need to connect to power when the transmitter is powered).
7	3.5mm L/R out	Connect headphones or power amplifiers to output stereo audio.
8	HDMI Signal Output	Connect with HDMI display device

VI. Installation Procedures

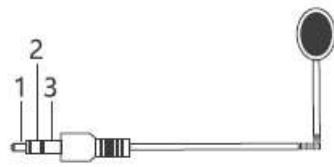
1. Connection Diagrams



2. Connection Instructions

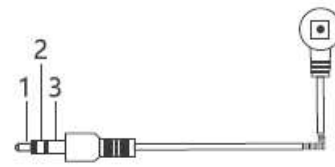
- 1) Connect the source device to the HDMI IN port of the transmitter with an HDMI cable, and connect the HDMI OUT port of the receivers to the display device with another HDMI cable.
- 2) Use a Cat6/6A/7 cable to connect the RJ45 port of the transmitter and receiver.
- 3) If using HDMI loop out, connect the display device to the HDMI OUT port of the transmitter.
- 4) If using IR passthrough, the IR blaster extension cable should be plugged in the IR OUT port and the IR receiver extension cable should be plugged in the IR IN port.
- 5) If you need to output audio additionally, connect the speaker to the L/R port of the receiver with a 3.5mm stereo audio cable.
- 6)) If you need to use RS-232 command control, connect the RS-232 port to the control device.
- 7) 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) The IR blaster extension cable should be plugged in the IR OUT port of the transmitter or receiver. The IR receiver extension cable should be plugged 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) Point the remote control at the receiving head of the IR receiver extension cable to operate.

4. RS-232 Setting

Baudrate: 9600

Databits: 8

Stop bits: 1

Parity: none

VII. Technical Parameters

Control Commands	Function Descriptions
ES XX On [Enter]	<ol style="list-style-type: none"> 1) Turn on the network signal output port(s), choose from "01" to "02"(the network ports from left to right are: 01, 02). 2) "All" means all four ports
ES XX Off [Enter]	<ol style="list-style-type: none"> 1) Turn off the network signal output port(s), choose from "01" to "02" (the networkports from left to right are: 01, 02). 2) "All" means all four ports
Reset [Enter]	Restart the device
Recover [Enter]	Restore device factory settings
Baud XX [Enter]	Set the baud rate value: 9600 (default), 19200, 38400, 57600, 115200
Examples of control commands are shown below:	

Control Command 1	ES 02 On [Enter]	
Function Description	Turn on network signal output port 02	
Return Values	Received successfully	ES 02 On OK
	Receive failed	ES 02 On FAIL
Control Command 2	ES 02 All Off [Enter]	
Function Description	Turn of all the network signal outputs	
Return Values	Received successfully	ES 02 ALL Off OK
	Receive failed	ES 02 All Off FAIL
Control Command 3	Reset [Enter]	
Function Description	Restart the device	
Return Values	Received successfully	Reset OK
	Receive failed	Reset FAIL
Control Command 4	Baud 19200 [Enter]	
Function Description	Set the baud rate value: 19200	
Return Values	Received successfully	Baud 19200 OK
	Receive failed	Baud 19200 FAIL

Note that you need to press the 'Enter' key to send the control command.

VIII. FAQ

Question:

Why is there no image output on the display device?

Answer:

- 1) Please check the power supply and if all cables are well-connected.
- 2) Please check if there is an HDMI signal input.
- 3) Please make sure that the corresponding network port output is not turned off by the RS-232 command.

Question:

Why is the output image unstable?

Answer:

- 1) Please check if the length of the network cable is within the specified range.
- 2) Press the "reset" button on TX or RX to restart and reconnect.

Question:

Why does the TV have a snowy/fuzzy screen?

Answer:

- 1) Change to a better quality or shorter HDMI cable. The recommended length of the HDMI cable is less than or equal to 5 meters.
- 2) Try another network cable and make sure that the length is within the specified range.

IX. Technical Parameters

Item		Specification
Mode		1 in 2 out
HDMI Performance	Compatibility	HDMI 1.4, HDCP1.4
	Audio Formats	PCM, LPCM, DTS-HD, DTS-Audio
Transmission distance	CAT6/6A/7	1080p@60Hz≤70 meters 4K@30Hz≤40 meters
IR Passback	Bi-directional IR passback (20-60khz)	
RS-232	3Pin: GND-RxD-TxD, follows RS-232 levels Default baud rate: 9600	
Operating Environment	Working temperature	-20 - 60°C
	Storage temperature	-30 - 70°C
	Humidity	0 -90% RH
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	
Power	Supply	TX: DC12V/1A RX: DC5V/1A
	Consumption	TX < 10W RX < 2.5W
Physical Properties	Housing	Iron
	Color	Black
	Weight	TX: 280g RX: 160g x2
	Dimensions	TX: 151.5 x 86.5 x 19.0 mm RX: 75.0 x 80.0 x 18.0)mm

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