

## HDMI Extender

**OLC-HD2102E**



Max up to 150m

### Features

#### Transmit or receive HDMI signal over single standard Cat5e/6

- ▶ OLC-HD2102E consists of a transmitter unit and a receiver unit
- ▶ HD Video reaches 150m(1080p@60Hz)
- ▶ Support IR pass-back with frequency of 38KHz
- ▶ Support HDMI 1.3 and HDCP1.2
- ▶ LED Status to indicate HDMI Activity
- ▶ Support Audio format DTS-HD/Dolby True HD/PCM/ Dolby AC3/DSD
- ▶ Highest resolution up to 1080p@60Hz
- ▶ HD Video over IP transmission solution, max bandwidth <80Mbps
- ▶ Power supply 5VDC/1A power adaptor included
- ▶ Easy and convenient to use, plug & play, no need to configure
- ▶ Metal housing for stable and durable working life

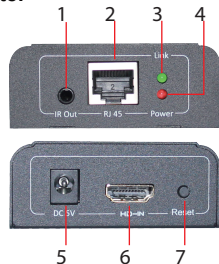
### Overview

The OLC-HD2102E is a HDMI extender which adopts new HDMI extending technology. The product consists of a transmitter unit and a receiver unit and should be used in pairs.

With the application of this HDMI extender, HDMI signal could be extended up to 150m over single cost-effective Cat5e/6 or above cable at higher standard. Transmission distance up to 150m is a perfect solution for family application as well as CCTV monitoring. The OLC-HD2102E extender is a complete solution to solve the image mosaic, color distortion, transmission failure and other problems when long distance HDMI signal is transmitted. It supports EQ setting-automatically to search the best transmitting resolution HDMI signals, and support infrared pass-back function, etc. The product is widely applied to situations such as Home Theater, Exhibition, Multi-media classroom, etc.

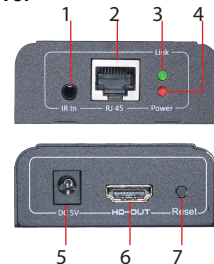
### Panel View

#### Transmitter



- 1 IR out
- 2 RJ45
- 3 Green light
- 4 Red light
- 5 Power
- 6 HDMI in
- 7 Reset button

#### Receiver



- 1 IR in
- 2 RJ45
- 3 Green light
- 4 Red light
- 5 Power
- 6 HDMI out
- 7 Reset button

### Quick Setup Guide

#### Package Contents

- |                                |                            |
|--------------------------------|----------------------------|
| 1) OLC-HD2102E 1 SET           | 4) User Manual 1PC         |
| 2) Power adaptor 5VDC 1A 2 PCS | 5) IR receiving line 2 PCS |
| 3) Brackets 2 SETS             |                            |

Step1: Begin with all input/output devices turned off and power cables are removed.

Step2: Use a HDMI cable: connect the male end to video source, the female end to "HDMI IN" of OLC-HD2102E-TX.

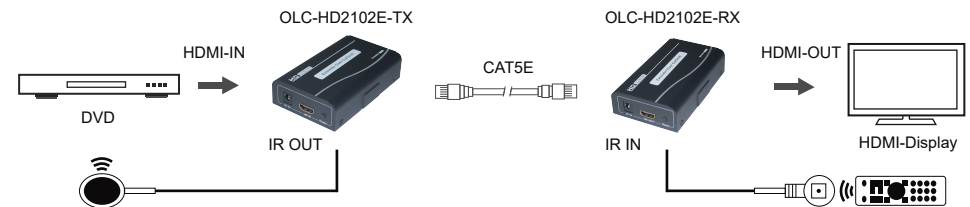
Use a Cat5e/6 cable: connect one end to RJ 45 connector of OLC-HD2102E-TX, the other end to RJ 45 connector of OLC-HD2102E-RX.

Step3: Use another HDMI cable: connect the male end to "HDMI OUT" of OLC-HD2102E-RX, the other end to display device.

Step4: Make sure the connections mentioned above are finished properly. Then connect OLC-HD2102E-TX and OLC-HD2102E-RX to DC+5V power supply.

When the red power LED indicator turns on and display device works with good image, then the whole connection is done successfully.

### Application Diagram



#### Caution:

1. The wiring must be away from any equipment with electromagnetic wave such as mobile phone, microwave, radio equipment, fluorescent lamp, power lines, etc.
2. This device is not network equipment, please do not connect with network to avoid damage.

### IR Pass-back Function

Step1: Insert one end of infrared receiving component into "IR IN" of OLC-HD2102E-RX and the other end at IR Remote Controller;

Step2: Insert one end of infrared emission component into "IR OUT" of OLC-HD2102E-TX and the other end at the corresponding infrared receiving component of video source such as DVR player.

Step3: IR remote control function starts after above proper operations are ok.



Receiver



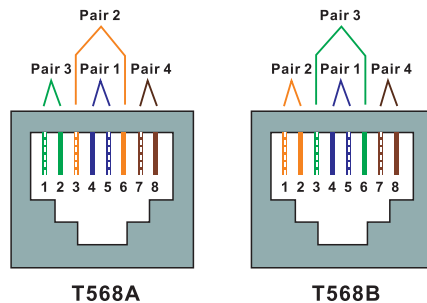
Transmitter

## How to make a network cable

To create a network cable, you will first need the equipment listed below.

1. Cat5e, Cat6, or Cat7 cable
2. RJ-45 connectors
3. Crimping tool
4. Wire stripper or Knife

The wire sequence of RJ45 connector must comply with international standard of EIA/TIA 568A or EIA/TIA 568B.



	1	2	3	4	5	6	7	8
T568A	White Green	Green	White Orange	Blue	White Blue	Orange	White Brown	Brown
T568B	White Orange	Orange	White Green	Blue	White Blue	Green	White Brown	Brown

- 1) We recommend stripping at least half an inch of the cable to expose the inner wires.
- 2) Separate the wires within the cable after the network cable jacket has been removed so that they can be put into the RJ-45 connector.
- 3) The CAT5 twisted-pair cable consists of four twisted wires, each color coded; 8 wires must be correctly lined as the standards of EIA/TIA 568A or EIA/TIA 568B.
- 4) Cut thread residue and leave 1.5cm wire exposed outside the insulating layer and ensure 8 wires are straighten and neat.
- 5) Place the cable into the RJ-45 connector and then use the crimping tool to attach the connector.
- 6) Repeat above steps for the other end of the cable; the wire sequence of both ends of the cable is suggested to be identical.
- 7) Make sure to test the cables before installing them once both ends of the cable have been completed.

## Parameters

Product Name	HDMI Extender
Model	OLC-HD2102E
Version	HDMI1.3 HDCP1.2
Resolution	480i@60Hz, 480p@60Hz, 576i@50Hz, 576p@50Hz, 720p@50/60Hz, 1080i@50/60Hz, 1080p@60Hz
Max Transmission	Transmission distance max up to 150m over Cat5e/6 or above
IR Remote Control	Support 38K carrier IR control
EQ control	Touch EQ button softly, auto-matching the optimum resolution
Power Adapter	DC5V/1A
Power Consumption	TX: ≤3W RX: ≤3W
Red Indicator	DC+5V power indicator
Green Indicator	Data signal indicator
ESD Protection	Electronics Touch Discharge: ±2KV Air Discharge: ±4KV Standard: IEC61000-4-2
Temperature	0°C ~ 55°C
Humidity	0 ~ 95%
Dimension	108.3X68X27mm
Housing	Zink Alloy

## Trouble shooting

Remove possible faults with following instructions.

- 1) Check if devices installed in proper way instructed by the supplier.
- 2) Check if HDMI cable well connected and line sequence at sending & receiving unit in correspondence.
- 3) Check if actual transmission distance exceeds Max. distance permitted under this HDMI format.
- 4) Check if OLC-HD2102E-TX and OLC-HD2102E-RX with normal input DC+5V power supply.
- 5) Replace the defective one with a proper unit, and check if end devices ( DVD, Display etc.) damaged.
- 6) Contact the supplier if faults can't be removed after operations mentioned above.

## After-sales Service

**For breakdown caused by product quality, we guarantee products return within 15 days, exchange within 30 days, free warranty within 1 year. Guarantee period counts from the date of purchasing.**

- 1) Damages caused by man-made factors, such as application or storage under improper working environment or not in accordance with user manual.
- 2) Disassembling, repairing by user or testing, maintaining by maintenance point not designated by OPTERNET.
- 3) Damage caused by force majeure factors such as accident natural disasters (fires, lightning strike, earthquake) etc.
- 4) Other damages caused by improper operation and application.