HDMI Over IP Extender (EC-HE3115-IP)

The HDMI over IP Extender kit boosts or extends the video/audio transmission distance over 100 meters in HDTV 1080p format to the display(s), linking with Gigabit Ethernet Switch. This unit provides a convenient and cost effective solution to transmit high quality audio visual signals from the source to HDTVs at a remote location and/or when integrating with several home theater devices/equipments.

This item is applicable to the following:
1) one to one signal extension
2) matrix connection
3) Video/Audio Broadcasting
4) Digital Signage
5) TV Wall
6) Multi-Casting

Package Includes:

- HDMI Transmitter x 1
- HDMI Receiver x 1
- 5V Switching Power Supply x 2
- User's Manual x 1

Features:

- Compatible with HDMI V-1.3b, DVI 1.0 and HDCP 1.2
- HDCP Compliant
- Supports max. video resolution: 1920x1200@60Hz (digital), 1600x1200@60Hz (analog)
- Supports high resolution video: 480i, 480p, 720p, 1080i, 1080p,
- Delivers video/audio signal through a single standard Ethernet cable
- Extends signals up to 100 meters from the source at 1080p or longer (linking with Gigabit Ethernet Switch)
- High Speed compression to guarantee low latency and excellent picture quality
- Audio -> System: Stereo L/R
- Sampling Rate: 48KHz
- Resolution: 16bits
- Supports Refresh Rate: 24Hz, 30Hz, 60Hz
- Allows and enables you to learn and reset EDID
- LED indications for operation modes
- Plug-and-Play installation
- Supports DVI with HDMI-to-DVI adapter
- Supports castcading
- Allows for group transmission (one TX unit to max.256 RX units - Max.: 16 groups)
- The most cost effective solution for one-to-one, one-to-many, and many-to-many signal extension
- Easy to install and simple to operate and the most effective solution for long signal extension.
- Ideal for video broadcasting, remote monitoring, conferencing, educational facilities.

Technical Specifications

• Video Bandwidth: 10.2 Gbps (HDMI 1.3b)

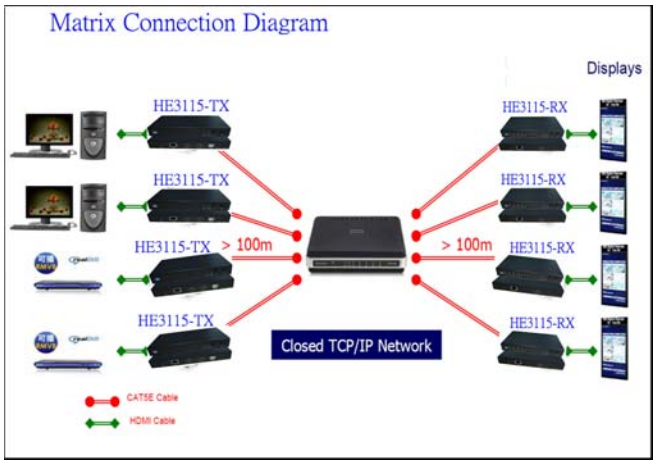
• Input TMDS signal: 1.2 volts (peak-to-peak)

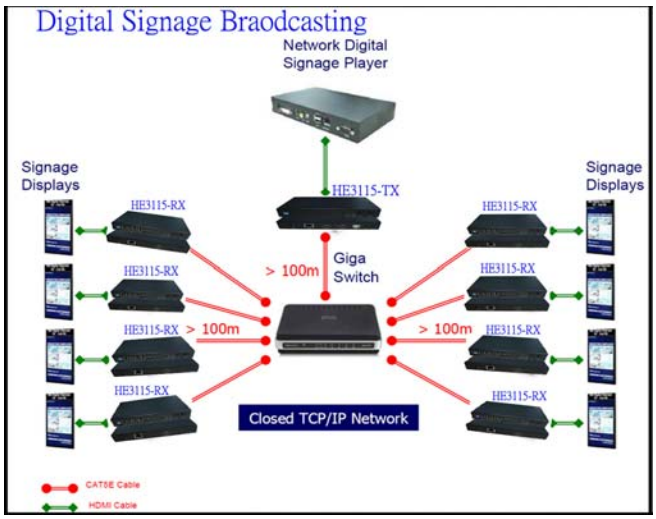
• Input DDC signal: 5 volts (peak-to-peak)
• HDMI Connector: 19 pin type female connector
• Power Supply: 5V 2A
• Power Consumption: 20 Watts (max)
• Link Connector: RJ-45 Shielded
• Update Connector: RS-232 port
• Weight: 1 kg (Transmitter + Receiver)
• Dimensions: 108mm x 75mm x 25mm / 4.2” x 3”x 1” (L x W x H)

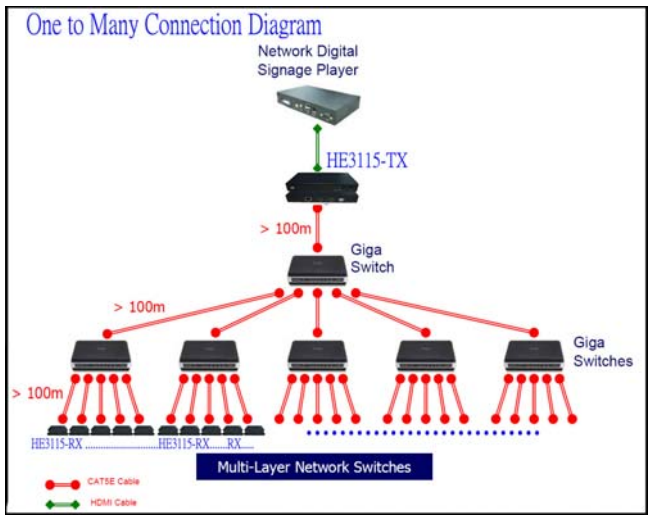
Specification:

Product	HDMI Over Single Cat. 5 IP Extender (EC-HE3115-IP)
HDMI Version	1.3b
HDMI Source Input Port	1
HDMI Sink Output Port	1
Source Port Connector	19 pin HDMI
Display Device Port Connector	19 pin HDMI
HDCP Compliant	Yes
LED Indication	2
Resolution	1920x1200@60Hz (digital), 1600x1200@60Hz (analog)
Deep Color	36 bits
Video Bandwidth	Up to 10.2GHz
Vertical Frequency Range	50 ~60 Hz
Audio Performance	Stereo L/R
Lip Sync	Yes
Power Consumption (max.)	10 Watts
Operation Temperature	0°C to 70°C.
Switching Power Adapter	5V 2.0A
Housing	Metal
Dimension (mm)	108mm x 75mm x 25mm / 4.2” x 3”x 1” (L x W x H)
Weight (g)	1kg

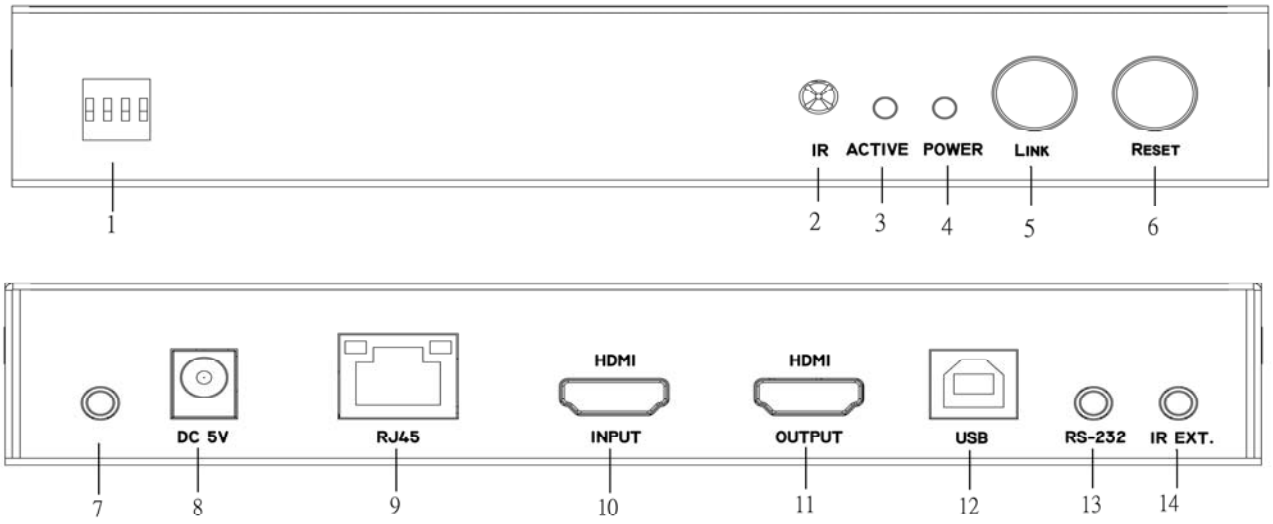
Application Diagram







Front Panel of the Transmitter



1) 4-dip Switch for group (many-to-many) connection – maximum 16 groups
2) IR receiver
3) LED – Green Flashing – linking in progress

Green ‘ON’ - Connection established and in operation

4) Power LED

5) Link Button Switch – short press – on/off to remote connection
long press – on/off for a local TV display

6) Reset Button

7) Firmware update (with PC)

8) DC Jack

9) RJ45 Jack

10) HDMI – input for connecting with a source device

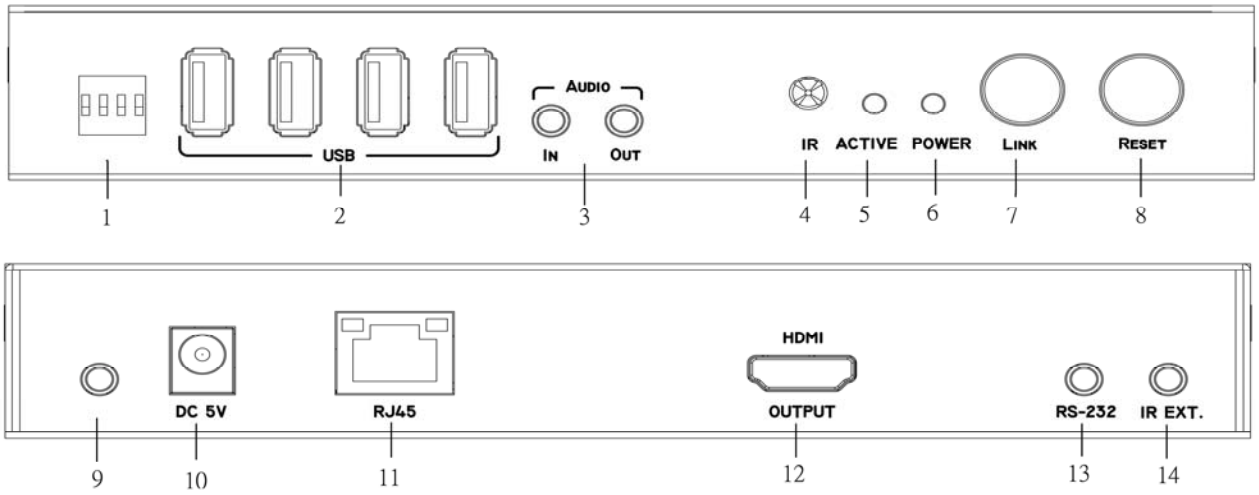
11) HDMI – output for connecting with a local TV

12) USB B Connector – For connection with PC to provide remote USB access

13) RS-232 Control – Serial over IP for multi-casting/signage application

14) IR Extension

Front Panel of the Receiver



1) 4-dip Switch for group (many-to-many) connection – maximum 16 groups

2) USB Hub - 4 port x USB A Connector for keyboard, mouse, HDI devices

3) Audio Line-in and Line-out - for remote USB audio in and out – Source from PC)

4) IR receiver

5) LED - Green Flashing – linking in progress
Green ‘ON’ - Connection established and in operation

6) Power LED

7) Link Button Switch – short press – on/off to remote connection
long press – on/off for a local TV display

8) Reset

9) Firmware update (with PC)

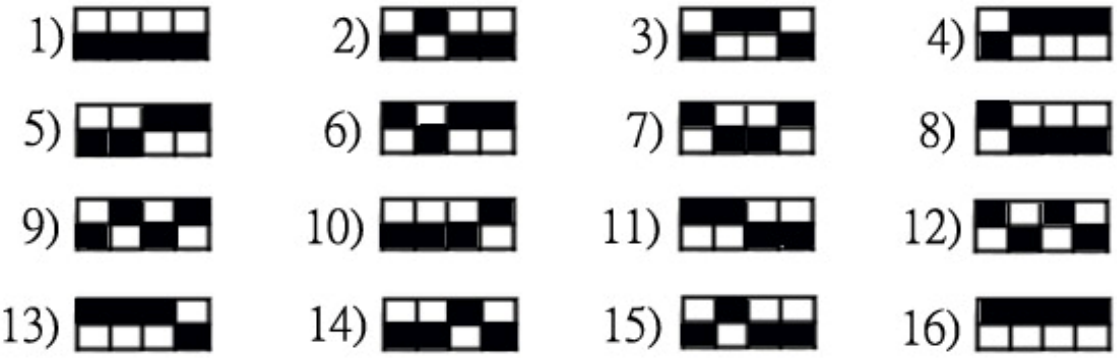
10) DC Jack

11) RJ45 Jack

12) HDMI – output for connecting with a remote TV
13) RS-232 Control – Serial over IP for multi-casting/signage application
14) IR Extension – Extension over Cat. 5e cable

Set-up for Group Connection

1) This product supports 16 transmitters for group connection, using 4-Dip switch. It works as a matrix switcher. Hereunder, please see the group patterns of 4-dip switch.



According to the above patters described, 16 transmitters (16 groups) can be set up for one-transmitter-to-many-receivers and many-transmitters-to-many-receivers connections at the same time. One transmitter unit is allowed for connecting 256 RX units in a group (4 layers).

PS. All transmitter and receiver units in a group must have the same 4-dip switches' pattern for one-to-many transmission.

Installation

How to connect / set up:

1) Simply connect your HDMI source (eg., Blu-Ray DVD Playter) to the Transmitter.
2) Connect your HDMI Display (eg., HDTV) to the Receiver.
3) Use Cat. 5/5e/6 cables to link the transmitter and the receiver.
4) Make sure that the Source, the Transmitter, the Receiver and the Displays are all properly connected.
5) Plug in DC Power adapters to the power jack of the Transmitter and the Receiver

Trouble Shooting

Problems	Solutions
Splitter is not in operation	1. Make sure that the power supply is properly connected with the splitter. 2. Check to see if the LED light is on.
No pictures/signals or poor images	1. Make sure that the video displays are HDCP compliant. 2. If you are using HDMI copper cable, overall length of the cable should not be longer than 15ft. Longer HDMI

	copper cables will result in no or poor resolution. The HDMI Repeater is recommended to use for a distant connection - over 15ft. 3. Make sure all HDMI connectors are tightly secured to all HDMI ports. 4. Turn off and again, turn on all the equipments. 5. Please test CAT5/6/7 cable to make sure that the internal wiring is correct.