

# HDMI Over IP Encoder & Decoder Transceiver



P/N: CE-H27P11-S1  
User's Manual  
Ver. 04-1414B

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## 1. Introduction

### 1.1. Features

- Depends on different site scenario to configure as Encoder (TX) or Decoder (RX)
- Supports video resolution up to 1080p@60Hz
- Build-in EDID & supports stereo audio
- Extend HDMI signal up to 180m (600ft) by single Cat.5e/6 cable (Only when One Tx + One RX)
- Supports cascaded by the Encoder (TX) via HDMI output Decoder (RX) via LAN or L2 Ethernet Switches for longer distance (100m + 100m + ...)
- Supports IR (20KHz ~ 60KHz) extension
- Built-in ESD protection system

### 1.2. Package Contents

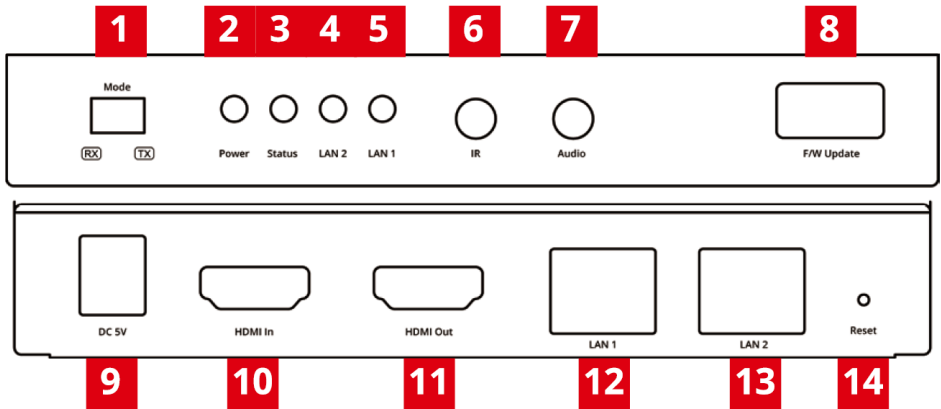
Check the following items in the package.

<b>Item</b>	<b>Q'ty</b>
<input type="checkbox"/> CE-H27P11-S1	1
<input type="checkbox"/> Power Adapter DC 5V/2A	1
<input type="checkbox"/> USB-A to DC Power Cable	1
<input type="checkbox"/> IR Blaster Cable	1
<input type="checkbox"/> IR Receiver Cable	1
<input type="checkbox"/> HDMI 3ft Cable	1
<input type="checkbox"/> User Manual	1

### 1.3. Specifications

<b>Encoder (TX) or Decoder (RX) unit</b>	1x 19-pin HDMI, Input 1x 19-pin HDMI, Output 2x 8P8C RJ45, Video Signal, Input/Output 1x 3.5mm for IR Input/Output 1x 3.5mm for Audio Aux In 1x Reset Button, for Default Reset 1x Slider for Encoder (TX) / Decoder (RX) Switch 1x 4-pin, USB 2.0 for FW Update 1x DC Power Jack
<b>HDMI Specification</b>	HDMI 1.4 & HDCP 1.4
<b>Extensions Distance</b>	180m (600feet) for 1080p @60Hz
<b>Ethernet Port</b>	10/100 Mbps
<b>IR Frequency Range</b>	20KHz ~ 60KHz
<b>Interlaced Resolutions (50&amp;60Hz)</b>	1080i
<b>Progressive Resolutions (50&amp;60Hz)</b>	1080p
<b>VESA Resolution (60Hz)</b>	1920x1080 / 1680x1050 / 1600x1200 / 1920x1200 / 1440x900 / 1440x1050 / 1360x768 / 1280x1024 / 1280x960 / 1280x800 / 1280x768 / 1280x720 / 1024x768 / 800x600 / 640x480
<b>Operating Temperature</b>	0°C to 50°C
<b>Storage Humidity</b>	5% to 90% RH non-condensation
<b>Power Supply</b>	DC 5V
<b>Dimension</b>	5.20" (L) x 0.95" (H) x 3.08" (D)
<b>Material</b>	Metal

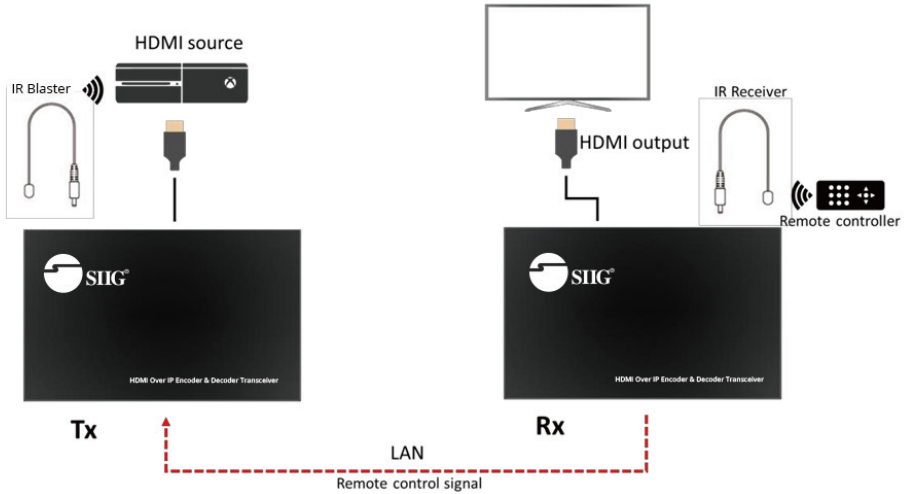
## 1.4. Front Panel



<b>1.</b>	<b>Slider Switch</b>	Switching between Encoder (TX) and Decoder (RX) mode.
<b>2.</b>	<b>Power LED</b>	Lights green when power on.
<b>3.</b>	<b>Status LED</b>	Lights green when HDMI input is transmitting data.
<b>4.</b>	<b>LAN 2 LED</b>	Flashing when LAN 2 port is transmitting data.
<b>5.</b>	<b>LAN 1 LED</b>	Flashing when LAN 1 port is transmitting data.
<b>6.</b>	<b>IR</b>	<b>TX:</b> Connect with IR blaster extension cable. Please get closer to the source device while using. <b>RX:</b> Connect with IR receiver extension cable. Please make sure the remote control used is within the effective range.
<b>7.</b>	<b>Audio</b>	<b>TX Audio Embedded:</b> Connect to 3.5mm audio source then it will cover RX HDMI output & RX 3.5mm audio extract. <b>RX Audio Extract:</b> It will follow RX HDMI output the same audio.
<b>8.</b>	<b>F/W Update</b>	For firmware update.
<b>9.</b>	<b>Power Jack</b>	DC 5V/2A
<b>10.</b>	<b>HDMI Input</b>	<b>TX:</b> Connect to HDMI source. <b>RX:</b> Disable.
<b>11.</b>	<b>HDMI Output</b>	<b>TX/RX:</b> Connect to HDMI display.
<b>12.</b>	<b>LAN 1</b>	TCP/IP 10/100Mbps Ethernet port 1. Connect to receiver with Cat5e/6 UTP cable.
<b>13.</b>	<b>LAN 2</b>	TCP/IP 10/100Mbps Ethernet port 2. Connect to receiver with Cat5e/6 UTP cable.
<b>14.</b>	<b>Reset</b>	Long press for 5 seconds to reset to factory default settings.

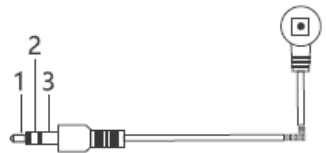
## 2. Application

### 2.1. IR Transmission



**IR blaster**

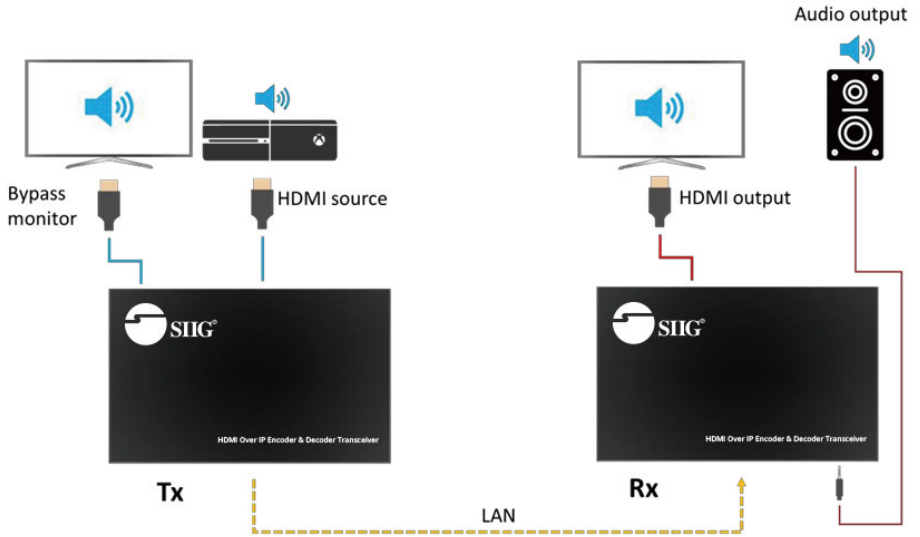
1. Power
2. IR Signal
3. Null



**IR receiver**

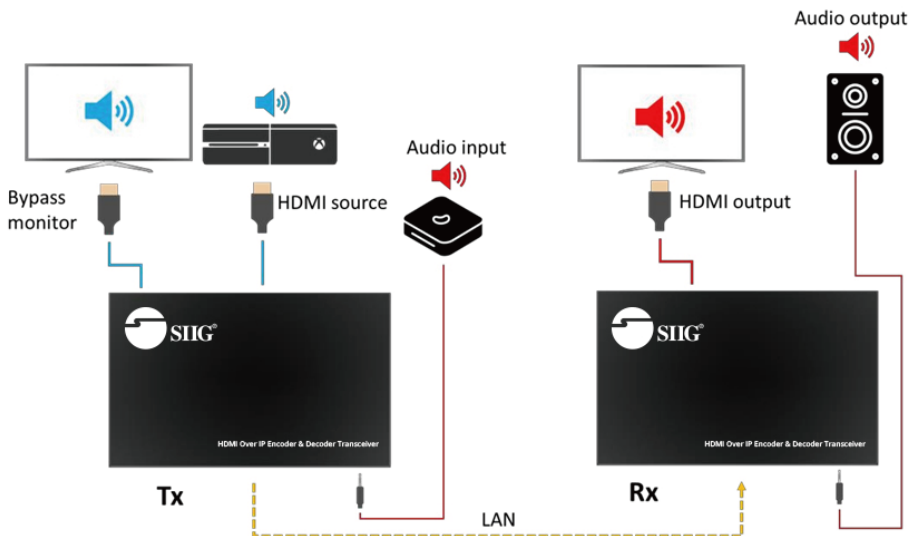
1. Power
2. IR Signal
3. Grounding

## 2.2. Audio Extract

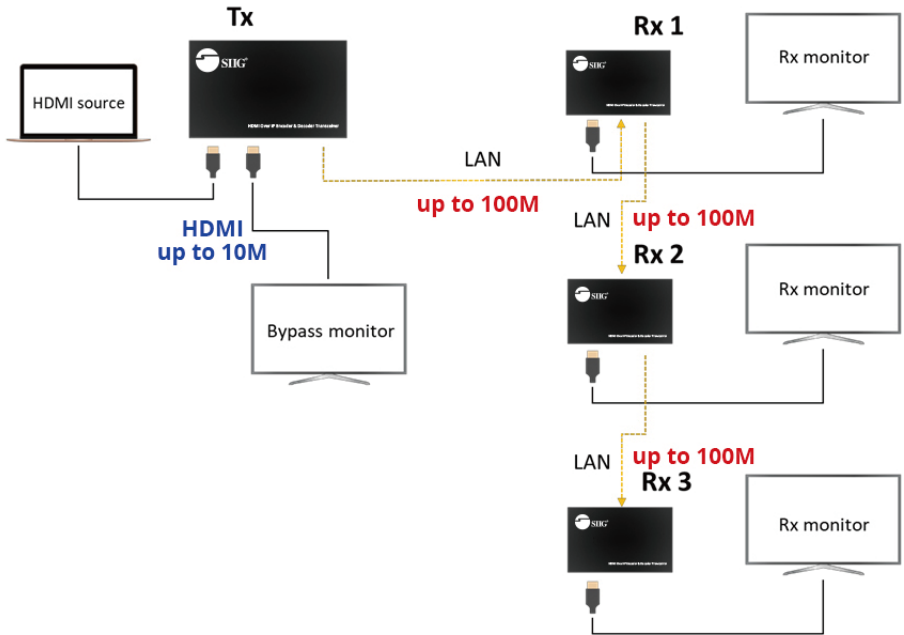


## 2.3. Audio Embedded

Audio blue still output to TX HDMI output. Audio red will cover to RX HDMI output and 3.5mm audio output.

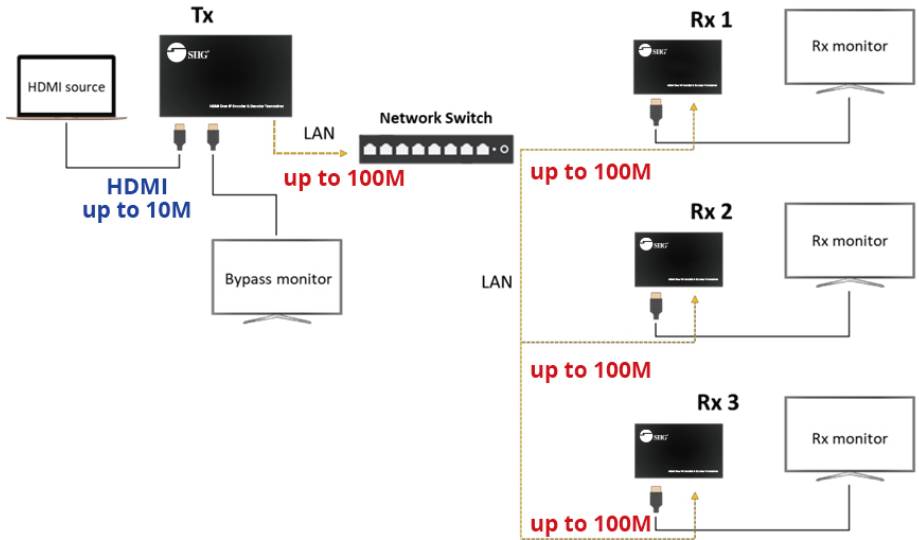


## 2.4. 1 to N Extender Mode with LAN

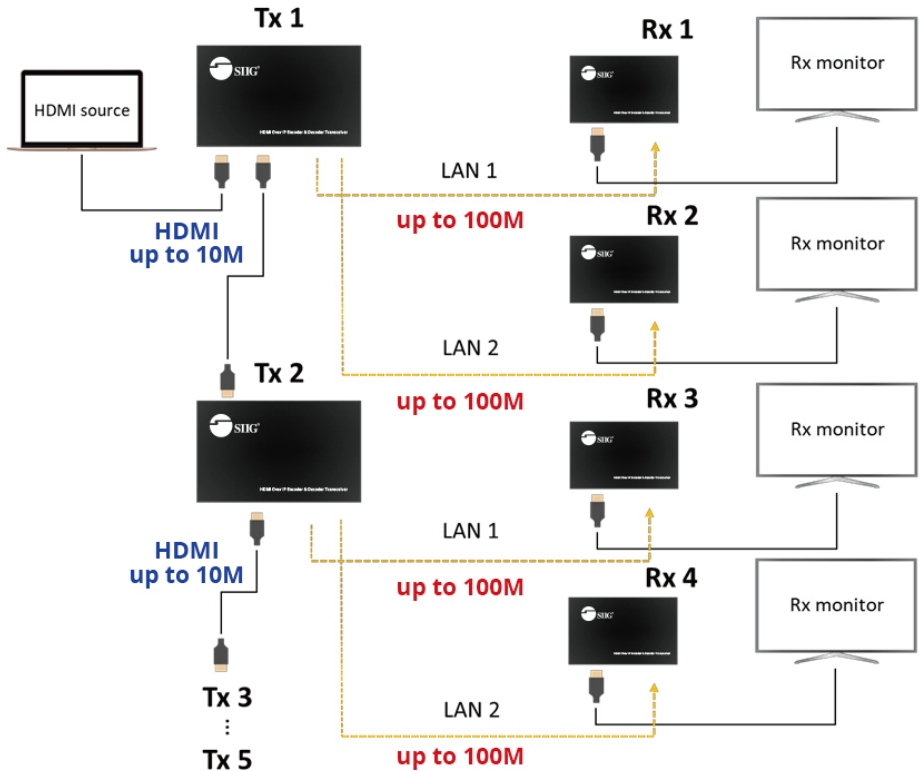




## 2.5. 1 to N Extender Mode with Network Switch



## 2.6. 1 to N Extender Mode with HDMI Loop-out



Please note that this connection can link Up to 5 Encoder (TX).

## 2.7. Note

- We recommend CAT5e/6 with 100% copper wiring and IEEE-568B wiring standard.
- We recommend HDMI cable length not over 33ft/10m.
- Dedicated IGMP Gigabit Ethernet switches are recommended for the best performance and reliability.
- When connecting to an existing LAN environment, it's recommended to configure a VLAN dedicated to these transmitter and receiver to avoid traffic collision with other networking devices.

### 3. Q & A

**Q 1. *Why is the power LED off?***

- Please check if the power supply is connecting well and the output voltage value is correct as recommended 5V/2A.

**Q 2. *Why is the output image unstable?***

- Check whether the length of the UTP cable connected from TX to RX is within 600ft/180m (One TX + One RX mode) or 328ft/100m (cascade mode).
- The length of HDMI cable is recommended to be  $\leq$  33ft/10m.

**Q 3. *Why is there no sound or having sound issues?***

- Please check if the HDMI cables are firmly connected.
- Please check if the audio setting on the output is set to HDMI audio.
- Please check if the TX audio jack is inserted without audio input cause the audio output mute.



## 2 Year Warranty

SIIG, Inc. offers a 2-year manufacturer warranty with this product. This warranty covers the original purchaser and guarantees the product to be free of any defects in materials or workmanship for two (2) years from the date of purchase of the product.

SIIG, Inc. will, at our discretion, repair or replace (with an identical product or product having similar features and functionality) the product if defective in materials or workmanship.

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