

# Features



VIS-HE7H-T  
HDBaseT video transmitter



VIS-HE7H-R  
HDBaseT video receiver

## Overview

VIS-HE7H-T is a video extension transmitter which is integrated with VISSONIC video matrix, processor or transmitter/receiver. It used for sending HDMI 1080P up to 70m or HDMI 4K@60 Hz (YCbCr420) up to 40m, audio, bi-directional RS232 and IR signals based on shielded CAT6 cables. 4K@60 Hz 4:4:4 input, HDMI 2.0, HDCP 2.2/2.3 are supported. It has three engineering application modes, and is compatible with twisted pair boards of X9 series, M5 Series, VS series matrix/processor, which is convenient for installation, troubleshooting, and improves compatibility.

## Basic Functions

- Transmission of HDMI, audio and control signal over shielded CATX cable up to 70 meters;
- Has one HDMI input and one HDMI loop output;
- Realized HDMI 2.0b specifically include data rates up to 18 Gbps, 3D graphics;
- Compatible with HDCP 2.2/2.3, and earlier such as HDCP 1.4, etc. Guarantee the display of content-protected 4K video media;
- The internal signal generator provides multiple resolutions and test images output for engineering debugging;
- Maximum 4K@60 Hz 4:4:4 signal input in the Def mode;
- Has Scaler function, 4K image can be set to 1080P output;
- In the Pass mode, the output image is synchronized with the source image;
- Provides de-embedding HDMI audio for 3.5mm audio port output;
- Audio output frequency 32 KHz–192 KHz, supports all compressed and uncompressed audio formats, such as 2.0/2.1/5.1/7.1 channel LPCM, Dolby, AC3, DTS, etc.;
- Allows to query version, set working mode, set resolution, manage EDID, update firmware, restore factory settings, etc. through RS232 interface;
- Bi-directional RS232 and IR pass-through, the RS232 and IR signals can be transmitted together with video signals, no need for additional wiring to control remote AV equipment;
- Compatible with shielded CAT5e/CAT6/CAT6a;
- Support POC power supply at the sending end or receiving end;
- Has LED indicators with video input, power and link status, conveniently real-time feedback and monitor of key performance parameters;
- RJ45 signal and link LED of HDBaseT ports, providing a method of verifying signal flow and operation to quickly identify connection problems;
- With a small case, allows to be discreetly installed wherever it is needed;
- Wide voltage power supply, permits to use DC 12V to 48V power adapter.

## Overview

VIS-HE7H-R is a video extension receiver which is integrated with VISSONIC video matrix, processor or transmitter. It used for sending HDMI 1080P up to 70m or HDMI 4K@60 Hz (YCbCr420) up to 40m, audio, bi-directional RS232 and IR signals based on shielded CAT6 cables. It can realize 4K × 2K@30 Hz 4:4:4 transport, compatible with HDMI 1.4 and HDCP 1.4, which is convenient for installation, troubleshooting, and improves compatibility.

## Basic Functions

- Transmission of HDMI, audio and control signal over shielded CATX cable up to 70 meters;
- Has one HDMI output;
- Realized HDMI 1.4b specifically include data rates up to 10.2 Gbps, 3D graphics;
- Compatible with HDCP 1.4, guarantee the display of content-protected 4K video media;
- Enables maximum 4K@30 Hz 4:4:4 images and videos to transport;
- Provides de-embedding HDMI audio for 3.5mm audio port output;
- Audio output frequency 32 KHz–192 KHz, supports all compressed and uncompressed audio formats, such as 2.0/2.1/5.1/7.1 channel LPCM, Dolby, AC3, DTS, etc.;
- Allows to query version, manage EDID, update firmware, restore factory settings, etc. through RS232 interface;
- Bi-directional RS232 and IR pass-through, the RS232 and IR signals can be transmitted together with video signals, no need for additional wiring to control remote AV equipment;
- Compatible with shielded CAT5e/CAT6/CAT6a;
- Support POC power supply at the sending end or receiving end;
- Has LED indicators with video input, power and link status, conveniently real-time feedback and monitor of key performance parameters;
- RJ45 signal and link LED of HDBaseT ports, providing a method of verifying signal flow and operation to quickly identify connection problems;
- With a small case, allows to be discreetly installed wherever it is needed.

## Button and indicator

- POWER LED;
- LINK LED;
- VIDEO input LED;
- SWITCH button (in Test mode, short press to switch different test images, long press to switch different resolutions, and release the button to output);
- MODE button (Test: test image mode; Def: custom mode, using internal EDID, supporting 4K@60 Hz 4:4:4 input; Pass: direct pass mode, using the receiving end EDID).

## Interface

- 1 × HDMI input, 1 × HDMI loop output;
- 5-Pin Phoenix Connector: 1 × RS232 control, 1 × RS232 bi-directional transmission;
- A pair of 3,5mm infrared input and output;
- 1 × 3,5mm audio de-embedding output;
- 1 × RJ45 twisted pair port;
- 1 × DC 12–48V power port.

## Specifications

Maximum data rate	18 Gbps (6 Gbps per color)
Maximum pixel clock	600 MHz
Input resolution range	All VESA resolutions, up to 4096x2160p (18 G); All 3D formats and downward compatibility; All PC resolutions including 3840x2160P and downward compatibility.
Format	RGB/YCbCr444/YCbCr422/YCbCr420
Protocol	HDMI 1.4, 2.0b; HDCP 1.4, 2.2, 2.3.
Video input	
Quantity/Signal type	1 × HDMI input
Quantity/Connector	1 × Female HDMI Type A
Horizontal frequency	15KHz to 150KHz
Vertical frequency	24Hz to 120Hz, resolution up to 18Gbps
Video loop out	
Quantity/Signal type	1 × HDMI loop out
Quantity/Connector	1 × Female HDMI Type A
Horizontal frequency	15 KHz to 150 KHz
Vertical frequency	24Hz to 120Hz, resolution up to 18Gbps
Transmitter-Receiver connection	
Connector	One female RJ45 per unit
Termination standard	TIA/EIA T568B
Transmission distance	Use shielded CAT5e/CAT6/CAT6a cable, 1080p@60Hz up to 70m, 2560x1600@60Hz up to 40m, 4K/UHD@30Hz and 60Hz up to 40m.
Cable requirement	Solid conductor, 24 AWG or better
Cable recommendation	400 MHz bandwidth, STP (shielded twisted pair)

## Button and indicator

- POWER LED;
- LINK LED;
- VIDEO output LED

## Interface

- 1 × HDMI output;
- 5-Pin Phoenix Connector: 1 × RS232 control, 1 × RS232 bi-directional transmission;
- A pair of 3,5mm infrared input and output;
- 1 × 3,5mm audio de-embedding output;
- 1 × RJ45 twisted pair port;
- 1 × DC 12–48V power port.

## Specifications

Maximum data rate	10.2 Gbps (3.4 Gbps per color)
Maximum pixel clock	300 MHz
Output resolution range	Maximum 4K@30 Hz 4:4:4 and downward compatibility
Format	RGB digital video
Protocol	HDMI 1.4b, HDCP 1.4
Video output	
Quantity/Signal type	1 × HDMI output
Quantity/Connector	1 × Female HDMI Type A
Transmitter-Receiver connection	
Connector	One female RJ45 per unit
Termination standard	TIA/EIA T568B
Transmission distance	Use shielded CAT5e/CAT6/CAT6a cable, 1080p@60 Hz up to 70 m, 2560x1600@60 Hz up to 40 m, 4K/UHD@30 Hz and 60 Hz up to 40 m.
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Audio	
Format	All compressed and uncompressed audio formats, such as 2.0/2.1/5.1/7.1 channel LPCM, Dolby, AC3, DTS, etc.
De-embedded output	3.5mm analog stereo (left/right)
Extender-Peripheral connection	
Serial control port	Via screw of 3.5mm and 5-pin to hold the RS232 connector
RX/TX baud rate	9600 to 115200 baud
R2/T2 baud rate	115200 baud
Infrared control port	A pair of 3.5mm audio jacks
TTL	(0 to 5 V) Modulation infrared control, from 25 KHz to 60 KHz
Universal	
External power supply (supplied)	Input: AC 100 – 240 V, 50 – 60 Hz; Output: DC 12 V, 3 A, 36 W.
Power consumption	Maximum 12 W (Tx 4 W, Rx 8 W), remote power budget 20 W
Temperature/ Humidity	Storage: -40 to +158°F (-40 to +70°C) /10% to 90%, non-condensing; Operating: +32 to +104°F (0 to +40°C) /10% to 90%, non-condensing.
Heat dissipation	Cooling, Air convection through vents
Installation	
Furniture bracket	With optional under-table mounting kit
Shell type	Metal
Dimensions(HxWxD)	20 × 108 × 67mm (excluding connector)
Weight	TX 0.185kg
Compliance CE, ROHS	
Rated ventilation space	Conform to UL standards of heat and smoke release, excluding power supply
Product quality assurance	3 years

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