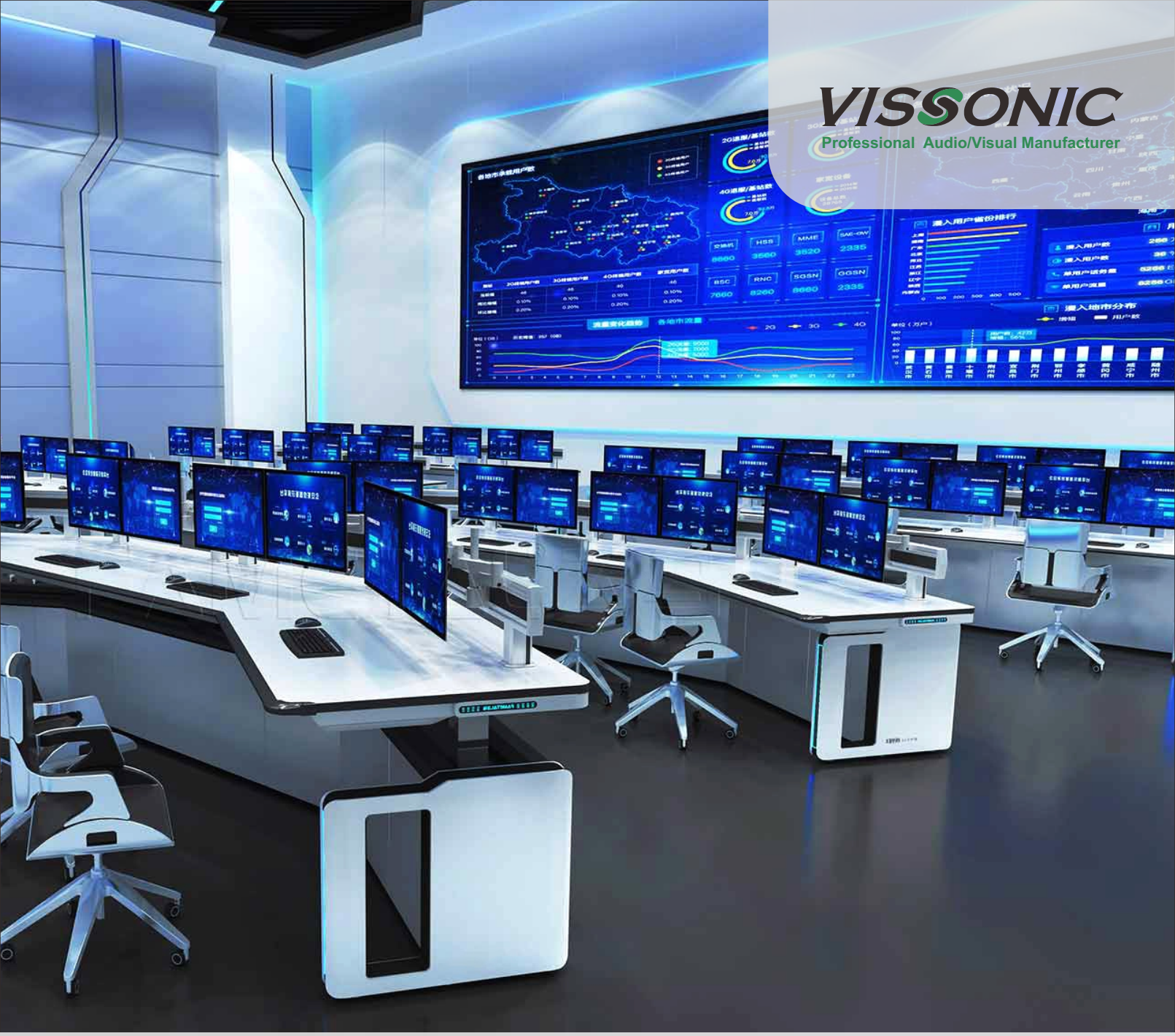
VISSONIC

Professional Audio/Visual Manufacturer



radio/television projects, multimedia conference hall, television teaching, command/control centers…

VIS-HE series HDBaseT video extender

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.
Cable requirement	Solid conductor, 24 AWG or better
Cable recommendation	400 MHz bandwidth, STP (shielded twisted pair)

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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Features

VIS-HE10H-T
HDBaseT video transmitter

VIS-HE10H-R
HDBaseT video receiver

Overview

VIS-HE10H-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 100m or HDMI 4K@60 Hz (YCbCr420) up to 70m, 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 100 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-HE10H-R is a video extension receiver which is integrated with VISSONIC video matrix, processor or transmitter. It used for sending HDMI 1080P up to 100m or HDMI 4K@60 Hz (YCbCr420) up to 70m, 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 engineering, troubleshooting, and improves compatibility.

Basic Functions

- Transmission of HDMI, audio and control signal over shielded CATX cable up to 100 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.;
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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
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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 100m, 2560x1600@60Hz up to 70m, 4K/UHD@30Hz and 60Hz up to 70m.
Cable requirement	Solid conductor, 24 AWG or better
Cable recommendation	400 MHz bandwidth, STP (shielded twisted pair)

Button and indicator

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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;
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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
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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

Audio	
Format	All compressed and uncompressed audio formats, such as 2.0/2.1/5.1/7.1 channel LPCM, Dolby, AC3, DTS, etc.
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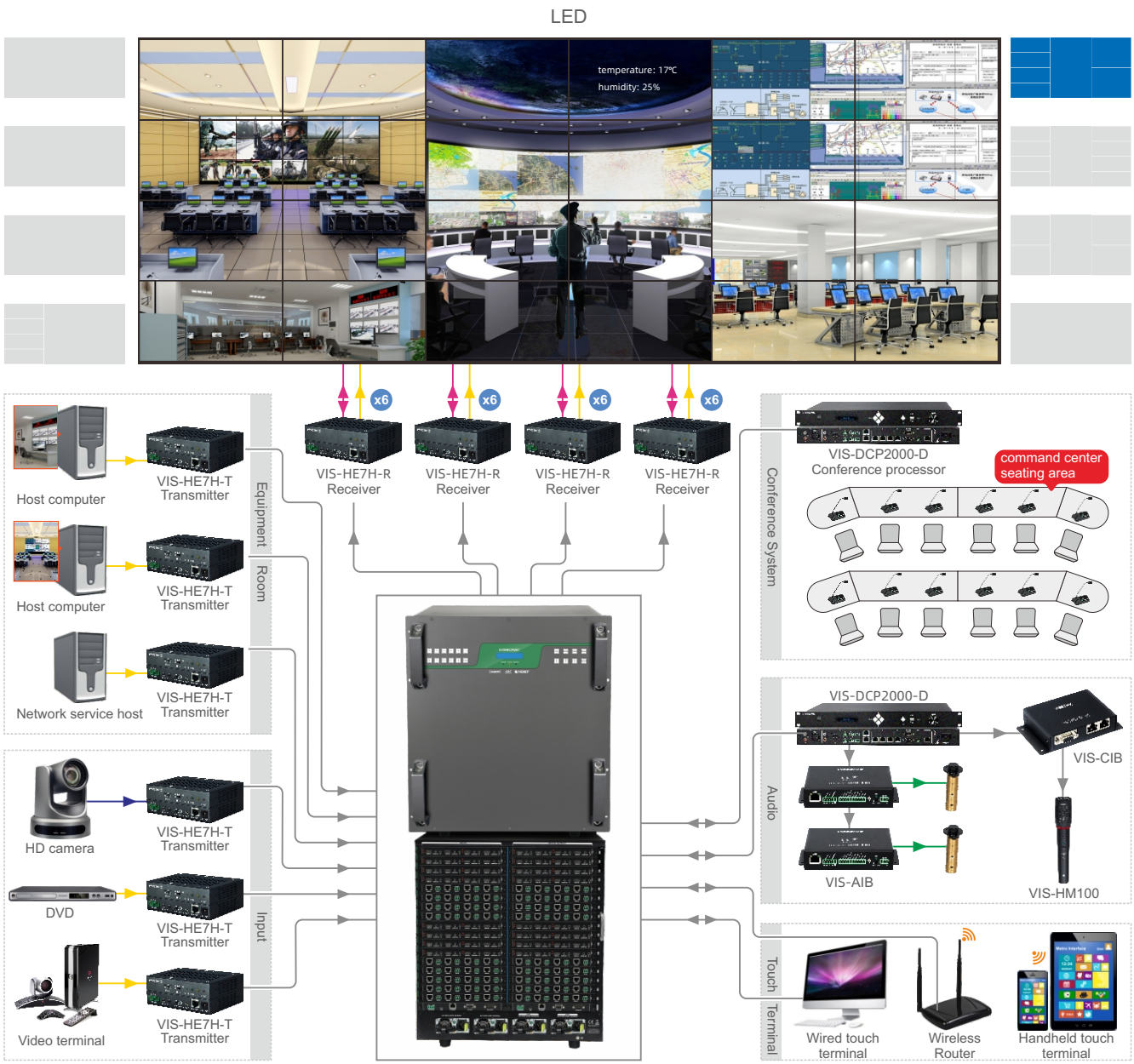
System Diagram



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