

HDMI over IP Broadcasting System

ITEM NO.: HE05BT, HE05BER HDMI Matrix over IP Broadcasting

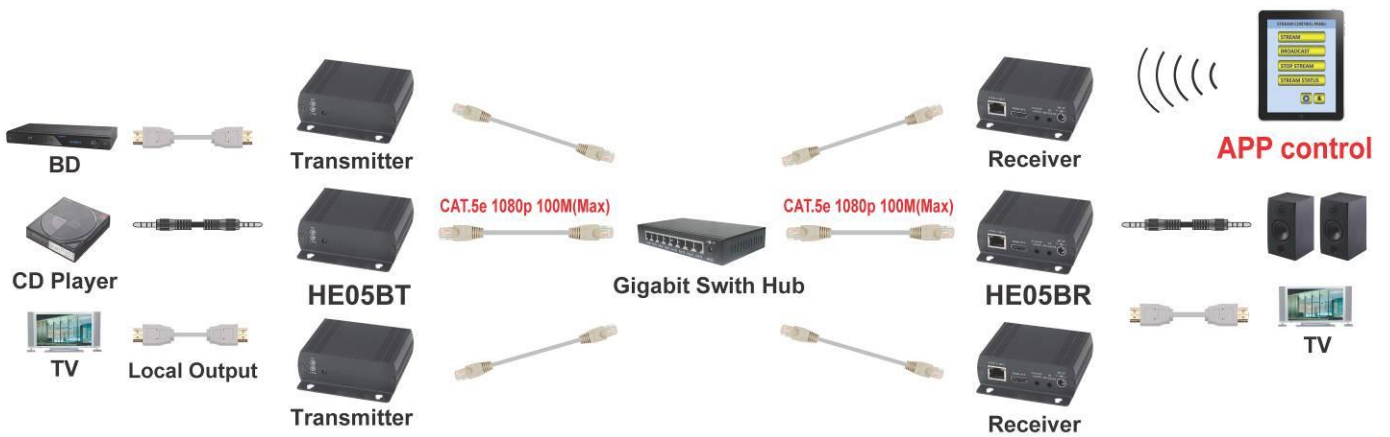


HE05B is a Multicast HDMI video over an IP network to up to 200 screens for faster, more efficient HD content sharing and distribution. It is ideal for distributing digital signage content or other HD video and audio across an Ethernet network. Because the transmitter and receivers install directly into your existing LAN infrastructure, integration is easy.

It works in point-to-point or point-to-multipoint and multipoint to multipoint configurations. Built in advanced management software, easy to use computer to setup transmitter/receiver linking and transmission. It is perfect application for any digital signage application with screens in different buildings or stores, such as distributing high-quality medical imaging video across a hospital campus, streaming video to classrooms in schools, multicasting video in command and control room setups, corporate video sharing and training.

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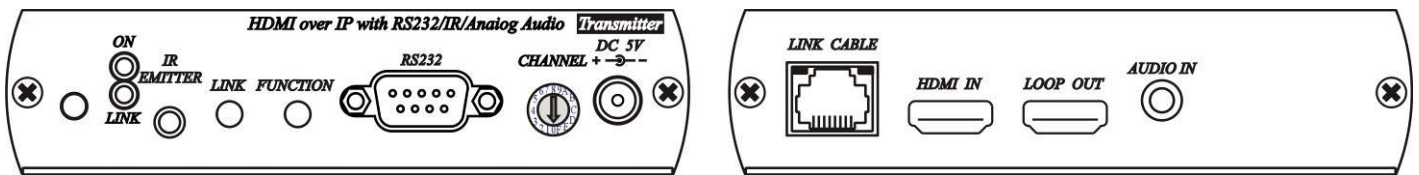
- Transmit HDMI signal over one CAT5e/6/7 cable.
- Flexible and scalable HDMI 1080p Broadcasting with Gigabit Ethernet LAN.
- Support point to point and point/multi to multi-display connections via Gigabit network switch.
- HDMI input : HE05BT transmitter maximum up to 16 pcs.
- HDMI output: HE05BER receiver maximum up to 254 pcs.
- Built in window based management software, using computer for easy setting input/output link and transmission.
- HE05BER receiver built in IR remote control to select input channel if the system do not have PC.
- Built in one individual stereo audio transmission to do sound broadcasting.
- Support HDMI resolution up to 1080p at 150M.
- HDMI 1.3b and HDCP compliant.
- HDMI audio support up to LPCM 7.1@192Khz
- Use IGMP protocol Gigabit Switch Hub to do HD signal distribution and transmission.
- Applications for digital signage, home network integration, and industrial control, hospital, education, security.
- Package includes a VESA mounting bracket to allow HE05BER receiver to mount at back side o monitor.



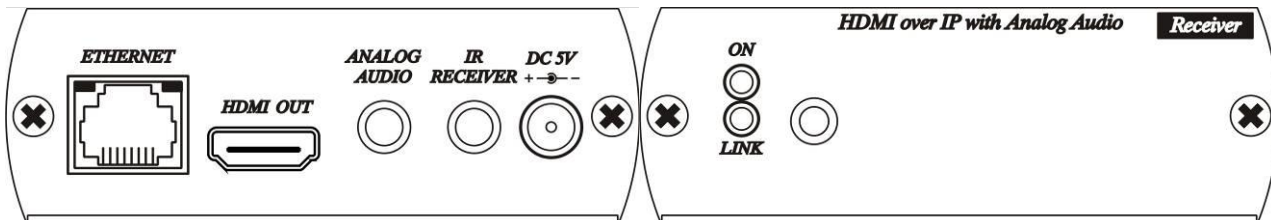
Recommend to use IGMP and Jumbo Frame over 8K Ethernet Switch Hub in order to achieve the best transmission quality

Panel View:

HE05T Transmitter



HE05BER Receiver



Back Panel Rotary Switch Function:



HE05BT and HE5BER I must setting at same channel in order to do mutual transmission. Rotary switch to be follow 16 HEX, could switch " 0 ~ F " total 16 channels, A = channel 10, B = channel 11, others channel same as 16 hex conversion. HE05BT host channel setting must setup as the only one channel to avoid conflict with any other HE05BT transmitter.

HE05BT Button Function :

Button	HE05BT Button	
	LINK	FUNCTION
Short Press	<i>Remote output ON / OFF</i>	Video Mode/ <i>Graphic Mode</i>
Long Press (3 seconds)	Loop Out Output ON / OFF	Anti-Dither (OFF / 1 / 2)
Press to power on (Press and hold until Green LED Flash)		Use Loop Out EDID
Press to power off (Press and hold until Green LED and Blue LED Flash)	RESET to Default	

LED Indication Status:

Power (Green LED):	Flash ON	Booting Boot completed
Link (Blue LED):	Flash ON	Connection or connected but no HDMI input linking
RJ45 LED:	Green Flash Orange On	(Data transmission) (linking)

Cable & Transmission Distance:

Link Cable use high quality Cat.5e UTP/STP/FTP or Cat.6 UTP cable

Transmission distance will be affected by equipment (Switch HUB), cable quality...etc. When using Cat.5e the max. Transmission distance up to 150M, using Cat.6 cable up to 180M.

You can also use model no: SR01 repeater for extended longer distance or using Gigabit Switch hub which support IGMP protocol and Jumbo Frame 8K for signal distribution or extend distance.

RJ45 Define:

Link Cable (TIA/EIA-568-B)

- | | |
|-----------------|----------|
| 1. Orange-white | Data 1 + |
| 2. Orange | Data 1 - |
| 3. Green-white | Data 2 + |
| 4. Blue | Data 3 + |
| 5. Blue-white | Data 3 - |
| 6. Green | Data 2 - |
| 7. Brown-white | Data 4 + |
| 8. Brown | Data 4 - |

Bandwidth Chart:

The bandwidth will be varied based on different resolution. Higher resolution may not request bigger bandwidth. Below Chart is the resolution and bandwidth status for reference.

Resolution (@60Hz)	Average Bandwidth (Minimum ~Maximum) Mbps
1080p	77 (24 ~ 91)
720p	46 (29 ~ 150)
480p	63 (36 ~ 73)
1600x1200 (UXGA)	59 (24 ~ 73)
1280x1024 (SXGA)	58 (31 ~ 76)
1024x768 (XGA)	118 (56 ~ 138)
800x600 (SVGA)	83 (64 ~ 107)

Under Gigabit Ethernet network, the total flow must not exceed 1000Mbps to avoid any delay on video streaming. If the video play with 1080p resolution, the HE05BT Transmitter allow maximum up to 10pcs for simultaneous video streaming.

Package Include:

HE05BT:

HE05BT Transmitter x 1,

Software CD x 1

DC 5V 2Amp power adapter x 1

HE05BR:

HE05BER Receiver x 1

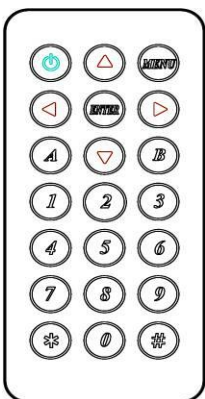
IR receiver cable x 1

IR remote control x 1

VESA mounting bracket x1

DC 5V 2Amp power adapter x 1



Remote Control Function:
























If you do not use PC computer management to setup HE05BER, then you could use the IR infrared remote control to preset channel selection. Using the IR remote control to the front of HE05BER will be ok.

The external IR receiver cable could be used if the installation environments not allow using remote control successfully.

Initial use the remote control or after change battery of remote control, the IR remote control and the equipment IR ID must be using same ID. The default IR ID is 8.




To setting the IR ID, Press and hold power button, then press button 8 to complete the setting.  + .(for example)


Remote Control Button Function:

Symbol		Function
	Power	Temporarily turn off the screen output /setup remote control IR ID
	MENU	Input Menu number
	LEFT	previous channel
	RIGHT	next channel
	UP	previous quick Menu selection
	DOWN	next quick Menu selection
	ENTER	Enter the confirmation / display the current channel
	1	number 1
	2	number 2
	3	number 3
	4	numuber4
	5	number 5
	6	number 6
	7	number 7
	8	number 8
	9	number 9
	0	number 0
	*	cancel input
	#	clear input
	A	no function
	B	no function

Remote Control Operation:



Select Channel :

Mode 1: use  or  select channel, if no any action after 3 seconds then it is the select channel or press  immediately to confirm the input channel.

Mode 2: select the channel number and press  to confirm the input channel.

Select Function :

Mode 1: use  or  select function, press  to confirm.

Mode 2: press , then input function number as below, press  to confirm.

Function Number:

- 0 Display equipment MAC Address.
- 1 Display equipment IP Address
- 2 Display current or previous connected Host IP Address
- 8 Display current IR ID setting
- 9 Display IR control software version
- 10 Switch Host Video mode or Graphic Mode
- 11 Switch Host Video Anti-Dithering define
- 20 Stop the connection with Host
- 21 Reconnect with Host
- 80 Use system default IR ID (8).
- 81 Use USER Define IR ID
- 90 Use USER Define IR ID as 0
- 91 Use USER Define IR ID as 1
- 92 Use USER Define IR ID as 2
- 93 Use USER Define IR ID as 3
- 94 Use USER Define IR ID as 4
- 95 Use USER Define IR ID as 5
- 96 Use USER Define IR ID as 6
- 97 Use USER Define IR ID as 7
- 98 Use USER Define IR ID as 8
- 99 Use USER Define IR ID as 9
- 999 Restart the system (Reboot)

Caution :

1. HE05B do not recommend to work with general LAN connection to avoid large video, data transmission or multicast packets to slow down your other LAN devices.
2. When use HE05BT with HE05BER receiver, the RS232, IR will be no function.
3. HE05BER IR function only provides the input channel selection, not IR extender function.
4. If HE05BER channel setup by computer management, the IR will back to original setting channel when system reboot.
5. Gigabit switch hub muse use support IGMP protocol and Jumbo Frame over 8K Ethernet Switch Hub in order to achieve the best transmission quality
6. Computer software operation, please refer to software operating instruction.

Specifications:

ITEM No.	HE05BT	HE05BER
Distance	150M	
HDMI Video Support	480i / 480p / 720p / 1080i / 1080p @ 24Hz、25Hz、30Hz、50Hz、60Hz	
HDMI Audio Support	Up to 7.1 LPCM 192Khz	
HDMI Input	HDMI Type-A	
HDMI Pass-Through	HDMI Type-A	
HDMI Output		HDMI Type-A
Analog Audio Input	3.5mm Stereo Phone Jack (10KΩ / 1Vpp)	
Analog Audio Output		3.5mm Stereo Phone Jack (10KΩ / 1Vpp)
IR Receiver (Int)	30-60Khz / ±45° / 5M	38Khz / ±45° / 5M
IR Receiver (Ext)		3.5mm Stereo Phone Jack

Ethernet	Gigabit RJ45	
Power Consumption	1300mA (Max)	1300mA (Max)
Power Supply	DC 5V 2000mA	
Dimensions mm	125 x 140 x 30	88 x 130 x 30
Weight g	380	260

RoHS   

Rev.A