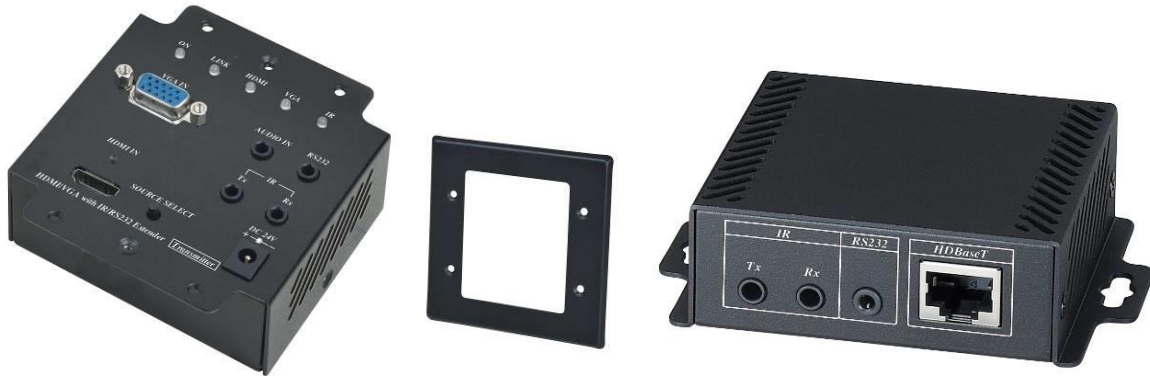


## VGA/HDMI (HDBaseT) CAT5e Extender Series

### ITEM NO.: VHE02EIP VGA/HDMI (HDBaseT) CAT5e Extender

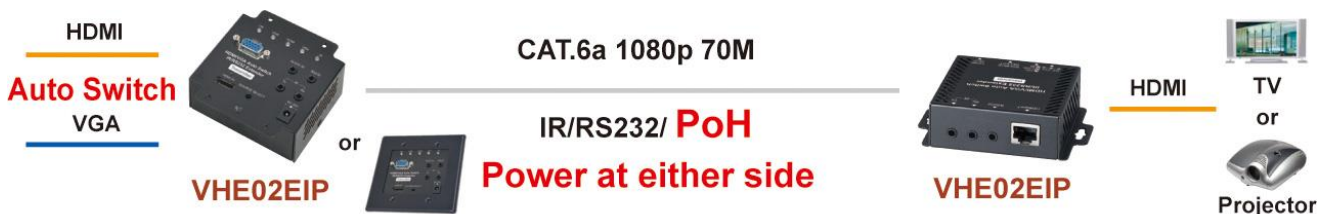


VHE02EIP support HDMI up to 4K@60Hz YUV4:2:0 and VGA up to 1920 x 1200@60Hz, with HD video/audio, bidirectional IR and RS-232, 2 way power over CAT5e/6 cable. It is an ideal solution for extending PC/laptop to a display output to a projector/monitor application. With a metal face plate at transmitter unit to provide installer a flexible installation to fit the TX unit at wall or on a meeting table, which is a perfect application at video conference room.

### VHE02EIP VGA/HDMI Auto Switch to HDBaseT Extender With IR/RS232/PoH

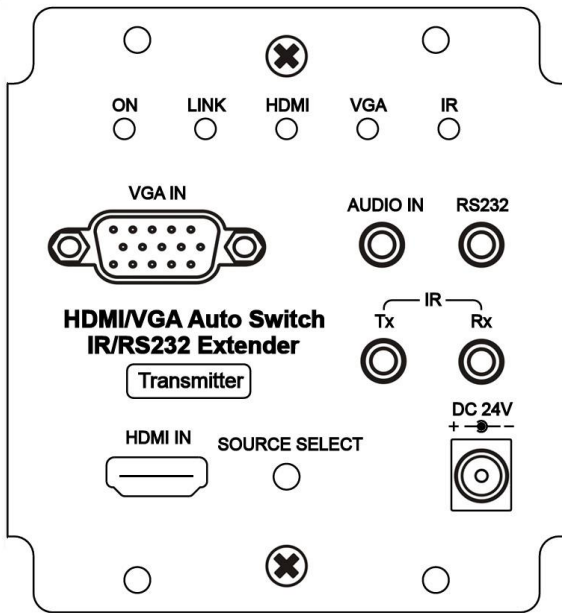
- To send and extend VGA/HDMI signal with IR/RS232/Power signal over one CAT5e cable.
- Auto switch or manually setting for VGA and HDMI inputs.
- VGA support stereo audio convert to HDMI output, resolution up to 1920x1200@60Hz.
- Transmission range up to 70M by CAT5e/6 cable.
- Uncompression video transmission, HDMI resolution up to 4K@60Hz 4:2:0 , 4K@30Hz and 3D.
- Support Bi-directional IR with 30-60 KHz, RS232, PoH, and CEC.
- Max. Data Rate- 10.2Gbps.
- HDMI 1.4 and HDCP compliance.
- Audio support up to LPCM7.1@192Khz, Dolby TrueHD, DTS-HD MA.
- Support PoH (Power over HDBaseT), allow power send either from TX or RX unit.
- Built in power isolation.
- Transmitter unit include metal wall plate mounting brackets for easy installation at wall or on meeting table.

### Installation view:

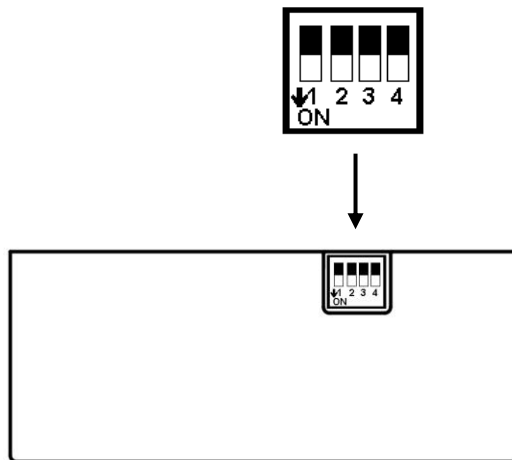


## Panel View:

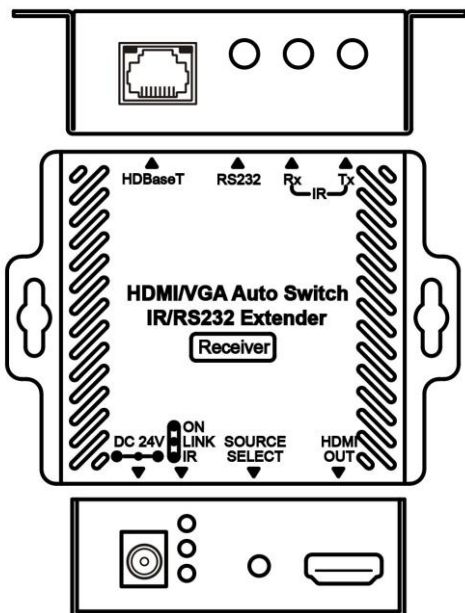
### VHE02EIPT Front View



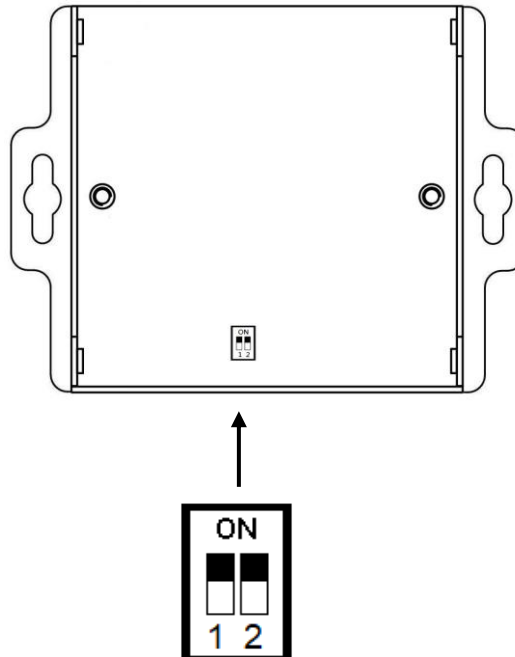
### Side View Dip Switch



### VHE02EIPR Front View



### Rear View Dip Switch



## LED Instruction:

Status	Color	VHE02EIPT	VHE02EIPR
POWER	GREEN	ON : Power on	ON : Power on
LINK	BLUE	ON : HDBaseT Linking Flash: Power saving mode	ON : HDBaseT Linking Flash: Power saving mode
HDMI	BLUE	ON : Select HDMI Input	
VGA	BLUE	ON : Select VGA Input	
IR	RED	Flash : IR Receiving or Sending	Flash : IR Receiving or Sending

Button Function:

FORCE SELECT	Function
Short Press	Manual Switch Mode: HDMI or VGA Input Selection
Long Press over 2 seconds	Auto Switch Mode: Auto Switch HDMI or VGA Input Long Press: HDMI and VGA LED flash at same time that mean the auto switch mode setting completed. Under Auto Switch Mode: HDMI and VGA connect simultaneously, VGA will be the priority.

Dip Switch Setting :

VHE02EIPT

Switch	ON	OFF
SW1	Control Firmware Update	RS232 Extender
SW2	Video Firmware Update	
SW3	Reserve	
SW4		

VHE02EIPR

Switch	ON	OFF
SW1	Video Firmware Update	RS232 Extender
SW2	Reserve	

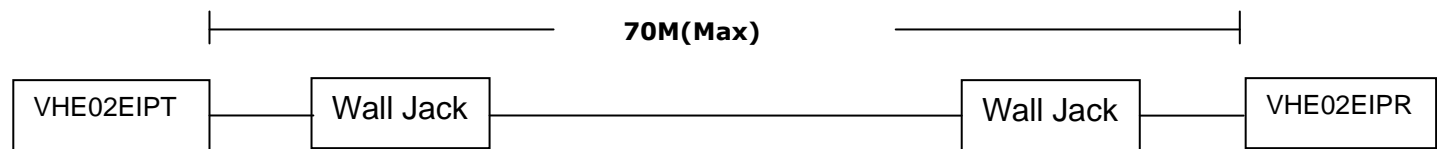
Cable:

Link cable recommend use high quality Cat.5e、Cat.6、Cat.6a、Cat.7 UTP / STP or FTP cable. Poor quality cable or network connection or improper construction will cause unstable connection, video or sound disruptions, picture noise appears.

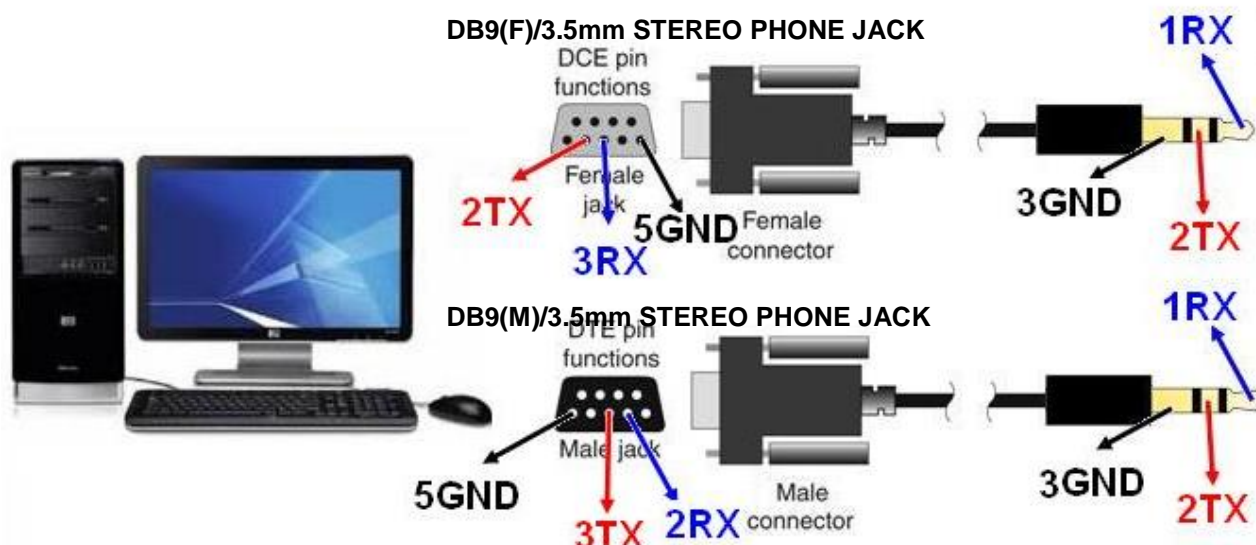
Distance chart by different cable:

Cable Type	Range	Supported Video
CAT5e / CAT6	60M	1080p 60Hz 12bit
CAT6a / CAT7	70M	
CAT5e / CAT6	35M	1080p 60Hz 16bit Up to 4096x2160@30Hz 4:4:4(9Gbps) 4K@ 60Hz 4:2:0
CAT6a / CAT7	40M	

If connection through the wall socket, the cable length must less 5 meters between HDMI extender and wall jack, as below drawing:



## RS232 Define:



### DB9(F)/3.5mm STEREO PHONE JACK

RS232		3.5 mm Phone Jack	
Footprint	Define	Footprint	Define
Pin 2	RX	Pin 1	TX
Pin 3	TX	Pin 2	RX
Pin 5	GND	Pin 3	GND

### DB9(M)/3.5mm STEREO PHONE JACK

RS232		3.5 mm Phone Jack	
Footprint	Define	Footprint	Define
Pin 2	TX	Pin 1	TX
Pin 3	RX	Pin 2	RX
Pin 5	GND	Pin 3	GND

## Power Saving Mode:

When there is no HDMI video signal input or TV is not connected or power off, this product will enter a power saving mode to save power consumption; under a power saving mode still provides, RS-232 (Less 9600bps), IR, and CEC signal transmission.

## Caution:

1. The wiring must away from any equipment with electromagnetic wave, i.e.: mobile phone, microwave, radio equipment, fluorescent lamp, high voltage power lines.
2. The cable must pull in straight to avoid any crosstalk interference and the transmission stability.
3. This device HDBaseT port is not general Ethernet signal; do not connect with Network devices to avoid damage.
4. Recommend to use STP or FTP for cable wiring if there are multiple units of VHE02EIP in one installation or under some interference environment.

## VHE02EIP Package Include:

VHE02EIP Transmitter x 1 pcs

VHE02EIP Receiver x 1 pcs

DC24V/1.25Amp Power Adapter x 1 pcs  
 IR Emitter Cable x 1 pcs  
 IR Receiver Cable x 1 pcs  
 DB9(M)/3.5mm STEREO PHONE JACK x 1 pcs  
 DB9(F)/3.5mm STEREO PHONE JACK x 1 pcs  
 Metal Wall Plate x 1 pcs  
 Mounting Screw pack x 2 bags

## Specification:

ITEM NO.	VHE02EIPT	VHE02EIPR
HDMI Interface	HDMI Type A	
VGA Interface	VGA 15-Pin D-Sub	
HDMI Video Support	Up to 1080p@60Hz,48bits,3D Up to 4096 x 2160@30Hz, 4K@60Hz 4:2:0	
VGA Video Support	Up to 1920 x 1200@60Hz@24bits	
Audio Support	Up to LPCM 7.1 192Khz、Dolby TrueHD、DTS-HD MA	
Analog Stereo Interface	3.5mm terminal x 1	
HDBaseT Connector	RJ45 x 1	
HDBaseT Distance	70M (Max)	
IR Input /Output	3.5mm Phone Jack x 2	
IR Carrier Frequency/Angle/Distance	30~60KHz / T : $\pm 10^\circ$ / R : $\pm 55^\circ$ / 5M / Bi-directional	
RS-232 Interface	DB9(F)/3.5mm STEREO PHONE JACK	DB9(M)/3.5mm STEREO PHONE JACK
RS-232 Data Rate	115200 bps / Duplex	
Power Supply	DC 24 / 1.25A	
Power Consumption	Max: 11.4W,Power Saving Mode: 1.8W	
Temperature	Operation: 0 to 55°C, Storage: -20 to 85°C, Humidity: up to 95%	
Dimension mm	86 x 93.5 x 42.8	92 x 69.5 x 25
Weight g	300	185

RoHS CE FC

Rev. A