4K HDMI KVM Extender Set, HDBaseT™

Manual

DS-55502 Rev. 2

The Digitus 4K HDMI KVM Extender Set consists of a transmitter unit (local control) as well as a receiver unit (remote control). The HDMI signal can be extended via a network cable (CAT 6) to a maximum distance of 70 m (Full HD video content). 4K video content can be extended to up to 40 m using a CAT 6 network cable. The highest supported video resolution is 4K UHD / 30 Hz. It also makes convenient access on a computer (mouse and keyboard) possible via the USB ports on the receiver unit. It is perfectly suited to industrial, commercial and public applications. The package also includes two bidirectional infrared units (sender, receiver), which can be used for the remote control of the connected input source.

Important Safety instructions

Please read below safety instructions carefully before installation and operation:

- Please pay attention to all the warnings and hints on this device.
- Do not expose this unit to rain, moisture and liquid.
- Do not put any stuff into the device.
- Do not repair or open this device without professional people's guidance.
- Make sure good ventilation openings to avoid product overheating damage.
- Shut off power and make sure environment is safe before installation.
- Do not plug-in/out the network cables and IR cables when it is in using to avoid cables damage.
- Make sure the specification matched if using 3rd party DC adapters.

Introduction

This KVM Extender is used to increase the distance between a source (computer, CPU) and its console (keyboard, mouse, and other peripheral devices). It is useful for control and security purposes. Therefore it is widely used in command center, data control center, operation rooms in military, bank, government, enterprise etc.

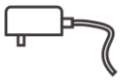
Features

1 Apply HDBaseT™ extend technology
2 Uncompressed HDMI video signal
3 Support distance up to 40m when 4Kx2K@30Hz
4 Extend 1080p signal over cat6 up to 70 meters
5 Support bi-directional IR pass back
6 Support HDCP, CEC, and 24 deep color
7 Support mouse and keyboard extension
8 Support uncompressed LPCM audio and compressed DTS-HD, Dolby true HD

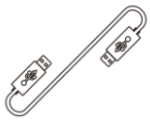
Package Contents

HDMI to HDBaseT™ TX sender*1pcs

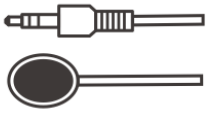
HDBaseT™ to HDMI RX receiver*1pcs



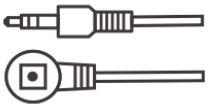
DC12V/1A *2pcs



USB Cable x 1pcs



IR blaster extension cable*1pcs



IR receiver extension cable*1pcs

User manual*1pcs

Installation Requirements

1. **Source equipment:**
   HDMI source device (i.e.: computer graphics card, DVD, PS3, or HD monitoring equipment etc.)
2. **Display devices:**
   With HDMI INPUT port, SDTV, HDTV, projector
3. **Network cables:**
   UTP/STP Cat5e/Cat6/Cat6A/Cat7 network cables, which following the standard of IEEE-568B

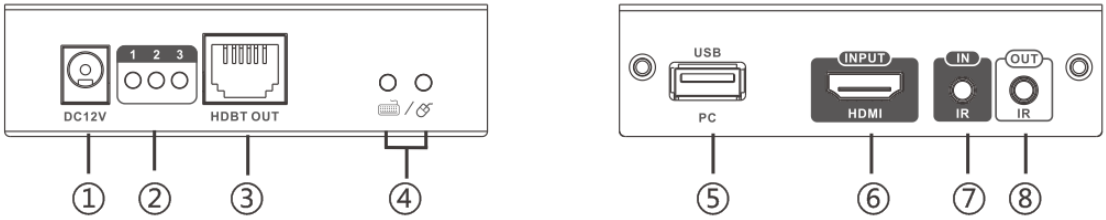
Specification

<table>
<tr><th>Part No.</th><th colspan="3">DS-55502</th></tr>
<tr><th>Technical</th><th colspan="2">Transmitter-TX</th><th>Receiver-RX</th></tr>
<tr><td>HDCP compliance</td><td colspan="3">HDCP1.4</td></tr>
<tr><td>Transmission protocol</td><td colspan="3">HDBaseT™</td></tr>
<tr><td>Transmission distance</td><td colspan="3">CAT5E/CAT6/CAT6A/CAT7</td></tr>
<tr><td rowspan="4">Transmission distance</td><td rowspan="2">Cat5e</td><td>60m</td><td>Up to 1080p@60Hz 36bpp</td></tr>
<tr><td>35m</td><td>1080p@60Hz 48bpp,
1080p@60Hz 3D,
4Kx 2K@30Hz</td></tr>
<tr><td rowspan="2">Cat6</td><td>70m</td><td>Up to 1080p@60Hz 36bpp</td></tr>
<tr><td>40m</td><td>1080p@60Hz 48bpp,
1080p@60Hz 3D,
4Kx 2K@30Hz</td></tr>
<tr><td>Video support</td><td colspan="3">480i@60Hz, 480p@60Hz, 576i@50Hz,
576p@50Hz, 720p@50/60Hz,
1080i@50/60Hz, 1080p@50/60Hz
4K×2K@24/25/30Hz</td></tr>
<tr><td>Audio support</td><td colspan="3">LPCM, DTS-HD, Dolby True HD</td></tr>
<tr><td>Input TMDS signal</td><td colspan="3">0.7~1.2Vp-p</td></tr>
<tr><td>Input DDC signal</td><td colspan="3">5Vp-p</td></tr>
<tr><td>CEC</td><td colspan="3">Supported</td></tr>
<tr><td>RS232 support</td><td colspan="3">No</td></tr>
<tr><td>latency</td><td colspan="3">zero latency</td></tr>
<tr><td>supported configuration</td><td colspan="3">point to point connection</td></tr>
<tr><td>IR passback</td><td colspan="3">yes, bi-direction</td></tr>
<tr><td>IR frequency</td><td colspan="3">20-60KHz</td></tr>
<tr><td>HDMI source control</td><td colspan="3">bi-direction IR</td></tr>
<tr><td>HDMI connector</td><td colspan="3">Type A 19 Pins, Female</td></tr>
<tr><td>Network cable standard</td><td colspan="3">CAT5E/CAT6/CAT6A/CAT7,
follow IEEE-5688 standard</td></tr>
<tr><th>Mechanical</th><th colspan="3">Transmitter-TX</th></tr>
</table>

Housing	Metal enclosure	**Receiver-RX**
Dimensions (L×W×H mm)	99.45×94.5×25.7mm	
Net weight	TX: 220g	
Power supply	12V/1A	RX: 230g
Power consumption	<8W	
Operation temperature	0~50°C	
Storage temperature	-10~70°C	
Relative humidity	0~95% (no condensation)	

Panel Description

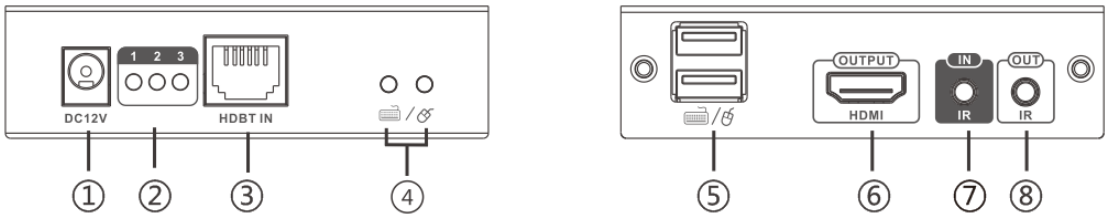
1. Transmitter Unit (TX)



①	**DC12V input**	Connect with the power supply
②	**Transmission signal indicator**	1. The first led: It turns on when power on. 2. The second led: It turns on when the transmitter unit and the receiver unit connect well with each other, and it flashes when there is no transmission between the transmitter unit and the receiver unit. 3. The third led: It turn on when the receiver unit connect well with the HDMI display device, and it turn off when no transmission between the receiver unit and the display device.
③	**HDBT Output**	HDBaseT™ signal **output**
④	**USB connection indicator**	Indicates that the signal is connected properly
⑤	**USB port**	Connect with computer/PC
⑥	**HDMI input**	Connect with HDMI source device

⑦	**IR receiver extension cable interface**	Connect with IR receiver extension cable. Please make sure the remote control is within the required range of IR receiver
⑧	**IR blaster extension cable interface**	Connect with IR blaster extension cable. Please put the IR blaster close to source device to get the best IR signal transmission from receiver.

2. Receiver Unit (RX)



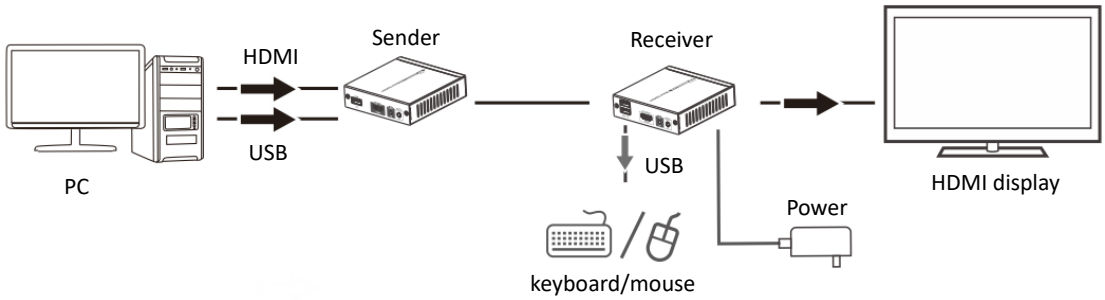
①	**DC12V input**	Connect with the power supply
②	**Transmission signal indicator**	1. The first led: It turns on when power on. 2. The second led: It turns on when the transmitter unit and the receiver unit connect well with each other, and it flashes when there is no transmission between the transmitter unit and the receiver unit. 3. The third led: It turn on when the receiver unit connect well with the HDMI display device, and it turn off when no transmission between the receiver unit and the display device.
③	**HDBT Output**	HDBaseT™ signal **input**
④	**USB connection indicator**	Indicates that the signal is connected properly
⑤	**USB port**	Connect with keyboard and mouse
⑥	**HDMI input**	Connect with HDMI display device
⑦	**IR receiver extension cable interface**	Connect with IR receiver extension cable. Please ⊓make sure the remote control is within the required range of IR receiver
⑧	**IR blaster extension cable interface**	Connect with IR blaster extension cable. Please put the IR blaster close to source device to get the best IR signal transmission from *receiver.*

Installation Procedures

1. To make a Cat5e/6 network cable

1	white and orange	4	blue	7	white and brown
2	orange	5	white and blue	8	brown
3	white and green	6	green		

2. Connections



[NOTE]: It is recommended to power from the receiver unit.

3. Bi-directional IR pass back

1) It supports bi-directional IR pass back. User can control DVD at TX end and control TV at RX end.
2) If control at RX end, please connect IR blaster extension cable with IR OUT of TX and connect IR receiver extension cable with IR IN of RX. If control at TX end, please connect IR receiver extension cable with IR IN of TX and connect IR blaster extension cable with IR OUT of RX.

FAQ

Q: No output on screen?

A:

1) Firstly, please check and make sure the power supply is connected well. Then, check and make sure all cables are connected correctly.
2) Please check and make sure you have chosen the right HDMI input port of the TV/screen.
3) Please check and make sure there is HDMI signal to be fed into transmitter unit, and check whether the receiver unit has been connected well with the display device.

Q: No "3" led indicator keeps flashing and no output?

A: Check and make sure the HDMI display device has been switched to the right HDMI input channel.

Q: No "2" led indicator keeps flashing, and no "3" led indicator keeps off?

A: Check whether the TX'HDMI IN has signal input and make sure RX'OUT is well connected with HDMI display.

Q: Output image with snow point?

A: Change the HDMI cable between the transmitter unit and the source device; it will be better to use a shorter HDMI cable for re-testing.

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