



HDbitT HDMI EXTENDER MATRIX 60HZ PSG3447

The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

Please read these instructions carefully before use and retain for future reference.

IMPORTANT SAFETY INFORMATION

When using electrical appliances basic safety precautions should always be followed.

- To prevent fire or shock hazard, do not expose this product to rain or moisture.
- Check that the power supply matches the mains voltage.
- Only use the power supply provided or one of identical specification.
- Ensure the IR remote extender cables are connected to the correct devices.
- Beware of static electricity which may damage the device. Use ESD precautions when installing.
- Do not plug or unplug cables while the devices are powered on.

WHAT'S INCLUDED

- 1 x HDMI Extender and 1 x Receiver
- 2 x Power Adapter 230VAC to 5VDC 3A
- Operation Manual
- IR remote extender
- IR remote receiver
- Remote control
- 4 x Mounting brackets and 8 x screws

FEATURES

- Based on HDbitT technology for a more stable performance.
- Supports full 4K x 2K@60Hz Ultra HD.
- Supports 1 to 1 and 1 to many using off-the-shelf IGMP switch.
- Transmission up to 120 metres.
- HDMI 2.0 and HDCP 2.2 compliant.
- Supports IR pass back for control from receiver location.
- Simple plug and play installation.

CAT CABLE REQUIREMENT

Follow the standard of IEEE-568B, It is recommended to select a high quality network cable with less loss and crosstalk.

- 1 orange/white
- 2 orange
- 3 Green/white
- 4 Blue

5 Blue/white 6 Green 7 Brown/white 8 Brown



OVERVIEW

TRANSMITTER



- 1. IR receiver window Receiver IR signal from remote control.
- 2. Power indicator LED for power on indication.
- 3. TX indicator Indicates current transmission channel ID.
- 4. Power input connect the PSU 5VDC connector.
- 5. Data transmission indicator flashes slowly when connecting then faster during data transmission.
- 6. HDbiT signal output HDMI encoded output connector.
- 7. Connection LED illuminates when transmitter/receiver are connected.
- 8. IR extender emitter connection to control the source device.
- 9. HDMI input connect to the source device HDMI output.
- 10. Reset button press to reset the unit.



- 1. RX indicator Indicates current transmission channel ID.
- 2. IR receiver window Receiver IR signal from remote control.
- 3. Power indicator LED for power on indication.
- 4. TX connected Indicates current input channel ID when matched to TX ID transmission is enabled.
- 5. Power input connect the PSU 5VDC connector.
- 6. Data transmission indicator flashes slowly when connecting then faster during data transmission.
- 7. HDbiT signal input HDMI encoded input connector.
- 8. Connection LED illuminates when transmitter/receiver are connected.
- 9. IR extender receiver connection to pick up signal from the remote control.
- 10. HDMI output connect to the destination display device HDMI input.
- 11. Reset button press to reset the unit.

INSTALLATION

MATRIX CONFIGURATION



DVD

OPERATION

IR User Guide:

IR receiver extension cable should be connected to the IR IN port of the receiver.

TV

- The IR emitter extension cable should be connected to the IR OUT port of the transmitter.
- The emitter of the IR extension cable should face as close as possible to the IR receiving window of the source device.
- Face the receiving head of the IR receiver extension cable toward the user for unobstructed line of sight to the remote control.
- The IR receiver detects the users remote control and transmits the signal down the network cable to the IR emitter which replicates the IR output to control the source device.

APP control user quide

- Android User: Download the App "Matrix Controller" with your mobile phone or tablet from the website: http://www.hdbitt.com/download-matrix/.
- IOS User: Download the APP "Matrix Controller " from the APP Store.
- Firstly, connect the video matrix controller to the IGMP switch.
- Then, wirelessly connect your mobile phone or tablet and the video matrix controller via hotspot "MATRIX" with each other (wifi password is 12345678).
- Open the downloaded APP which will display the interface and APP control commences.

| | HD _{sa} T | ••• Applidum 🕈 | 11:27 AM 100 % |
|------|---------------------|-------------------|--------------------------|
| e | | | |
| | 1316 | | |
| TX10 | RX1 OTADA | Devices are found | SCAN |
| TX10 | 1877 BY32 | TX1 | RX1 Unicontected |
| 194 | Tation | | RX2 •112 |
| TX39 | (RX37) ●1110 1小型 | ¢ | |
| TX68 | • | | Call of all more design. |



Click" play" button to preview the content of the source device on your phone or tablet.

- You can click the text box below each the TX/RX button to edit device name. Click OK when done.
- To set up a connection between input (TX) and output (RX) press and drag the TX button over the RX button required.





Note: Please do not use more than one mobile phone/ tablet to control the system simultaneously.

Button Control:

- There is a "TX ID" display on the transmitter, and there are both TX CONNECTED and RX ID displays on the receiver unit, each of which has a 2 digit display plus 2 adjacent buttons which adjust each digit.
- Values can be adjusted from 00 through to 99 by repeated button presses.
- Each receiver can be assigned an RX ID number and when the TX ID channel set on the transmitter matches the TX CONNECTED on the receiver the channel is connected.
- Short press: Press to set IGMP group and display the current set value. The unit switches automatically to the corresponding IGMP group 5 seconds after the press.
- Long press: Press and hold for 3 seconds to reset the unit.

Computer software control:

- Connect a PC to the IGMP Ethernet switch using CAT network patch lead
- Download the application "HDbitT E-Matrix Control Centre" from http://www.hdbitt. com/download-matrix/
- Change the PC's IP address to 192.168.1.XXX (to match the IP address of the TX and RX units and run the program.

| Device Scan Page Pre edit mode Scan Setup Device Scan Time: 3 | Seconda | Pre Edit Mod set a pre ope that you will Device scan page connected device of those devices | e: allow you ration mode use frequen : allow you es and set co | to start Scan to scan the nfiguration |
|---|---------|--|--|--|
| Hune | TX ID | RX ID | Hane | TX Connected |
| TX_1 | 90 | 94 | RE-TV41 | 60 |
| TX_2 | 86 | 10 | RI_TV32 | 90 |
| TX_3 | 60 | 15 | RI_TV37 | π |
| TX_4 | 77 | 23 | RI_TV60 | 60 |
| TX/RX setting tx_setup rz_setup | i's IP | Update S | elect Mode: NEW_ | Mode selection |

IP setting

- TX and RX units have their own default IP address, TX's IP is 192.168.1.238, and RX's IP is 192.168.1.239. Generally, it is not need to change the device IP address, as the system can work normally even though multiple TX units and multiple RX units connected into the system with their default IP address.
- If IP setting is really needed, please follow up the operation as Figure 2 (here make an example of TX's IP sett ing only, RX 's setting is the same as TX's)

Device scanning and setting

• Device scanning and setting (example shown of TX's setting only, RX's setting is identical)

| Device Scan Page Pre edit mode Scan Setup | | | |
|--|-------------------------------------|-------|--------------|
| Device Scan line: 3 Set | Device Selection | | Start Scan |
| Tx Device: 4 | TX_PC42 | | |
| Sano | IP Setup | - | TX Connected |
| TX_1 | IP: 192 . 168 . 1 . 238 | 32 | 90 |
| TX_ 2 | Netmask: 255 , 255 , 255 , 0 byclic | , and | d save |
| ТХ_ 3 | "Upo | date" | buttom |
| TX_ 4 | Gateway: 192 . 168 . 1 . 254 | 50 | 77 |
| | Chose DHCP | | |
| Click button "TX _se pop up a dialog | tup", | | |
| tx_setup rx_setup | Update Select Mode: | | • |

| Device Scan Time: 3 | Seconds | | | Start S | can |
|---------------------|---------|--------------|---------|---------|--|
| Device: 4 | TY ID | Rx Device: 4 | Vana | TX Cor | meeted |
| TI_1 | 86 | 10 | RX_TV32 | 90 | indected and indec |
| TX_2 | 60 | 15 | EX_TV37 | 86 | |
| TX_3 | 90 | 94 | RX-TV41 | 60 | Scan result |
| TX_4 | 77 | 23 | RX_TV50 | 77 | |
| | | | | _ | |
| | | | | | |
| | | | | | |

Device Name setting

• Click on a default device name and enter the desired name in the pop-up box.

| ice Scan Page Fre edit mode Scan Setup | | | |
|---|---------------|---------|--------------|
| Device Scan Time: 3 | Seconds | | Start Scan |
| Tx Device: 4 | Change Name | 1 | |
| Nane | | Nane | TX Connected |
| TX_1 | TX 1 | RX_TV32 | 90 |
| TX_2 | 1/2-1 | RX_TV37 | 86 |
| TX_3 | OK Cande | RX-TV41 | 60 |
| TX_ 4 | | RX_TV60 | 77 |
| | | | |
| | | | |
| | | | |
| tx_setup rx_setup | Update Select | Mode: | • |

Device Channel setting

• Select the channel for the device using the scroll list.

| wice Scan Page Pre edit mode | | | | |
|------------------------------|----------------------------|---------------|-------------|--------------|
| Device Scan Time: 3 | Seconds | | C | Start Scan |
| Tx Device: 4 | | Ra Device: 4- | | |
| Bane | TX ID | RX ID | Hane | TX Connected |
| ΤΧ_1 | 87 💌 | 10 | RX_TV32 | 90 |
| ΤΙ_2 | 83 84 85 | 15 | RX_TV37 | 86 |
| TI_3 | 86 87 88 | 94 | EX-TV41 | 60 |
| π_4 | 91 92 93 94 95 | 23 | RX_TV60 | 77 |
| | 97 96 99 F | | | |
| tx_setup rx_setup | Up | date S | elect Mode: | • |

Mode setting

• Click on the Mode button to change the required mode name.

| W | TX 75 | | | THE | Save Mode |
|--------------------------|--------------|-------------|--------------|---------------|----------------------------------|
| 3464 | 11 10 | KI ID | Nane | TX Connec | |
| TX_1 | 90 | 94 | KI-TV41 | 86 | |
| TX_2 | 86 | 10 | RI_TV32 | 90 | NEW_MODE01 |
| 71_3 | 60 | 15 | KI_TV37 | 77 | |
| TX_4 | 77 | 23 | KI_TV60 | 60 | OK Cande |
| | 1. Adjust th | e channel – | | -> 2. E | dit the name of the |
| | for the inp | ut/output | | pre- But | -mode, press "OK" ton to save |
| | | | | | |
| | | | | | |
| at Hada Name: NEW MODEDO | SAVE MODE | IEL MODE | Select Mode: | NODEOO NODEOO | - |

• Click the Update button when complete to store all the settings made under the current Mode name.

Selecting the operation Mode

• Click on the Mode button to change to the required mode and switch to the settings stored previously under that name.

| vice: O Name | TX ID | RX Device: 0 RX ID | Sane | TX Connected |
|-----------------|-------|-----------------------|---------|--------------|
| TX_1 | 90 | 94 | RX-TV41 | 60 |
| TX_2 | 86 | 10 | RI_TV32 | 90 |
| ТХ_З | 60 | 15 | RX_TV37 | 77 |
| TX_4 | 77 | 23 | RX_TV60 | 60 |
| | | | | |

SPECIFICATIONS

| Voltage/Current | DC 5V3A |
|---------------------------|--|
| Power consumption | TX: <8W RX: <10W |
| HDMI compliance | HDMI 2.0 |
| HDCP compliance | HDCP 2.2 |
| HDMI input resolution | 480i@60Hz, 480p@60Hz, 576i@50Hz, 576i@50Hz, 576p@50Hz, 720p@50/60Hz, 1080i@50/60Hz, 1080p@50/60Hz, 4Kx2K@24/25/30/60Hz |
| HDMI output resolution | 1080p@60Hz, 4Kx2K@30/60Hz |
| Audio formats | L & R Stereo Audio |
| Max transfer rate | 18Gbps |
| Input/output TMDS signal | 0.7~1.5Vp-p (TDMS) |
| Input/output DDC signal | 5Vp-p (TTL) |
| Transmission length | CAT5 80m / CAT5E 100m / CAT6 120m |
| Input/output cable length | <5m (AWG24) |
| IR remote control | Supports IR passback with 20-60KHz frequency |
| Transfer method | Over UTP/STP CAT5/5e/6 delay <200ms |
| Connector | RJ45 |
| Working temperature | 0~50°C |
| Storage temperature | -10~ 70°C |
| Humidity | 0~90%RH (no condensation) |
| Dimension (RX & TX) | 103(W) x 97.5(D) x 24.8(H)mm |
| Material | Alloy |
| Weight | 420g total |

CLEANING & MAINTENANCE

• Clean the outside casing with a soft cloth lightly moistened with mild soap and water. Never use any abrasive or solvents.

CPC Farnell declares that the radio equipment for wireless transmitter/receivers is in compliance with Radio Equipment Directive 2014/53/EU



INFORMATION ON WASTE DISPOSAL FOR CONSUMERS OF ELECTRICAL & ELECTRONIC EQUIPMENT.

When this product has reached the end of its life it must be treated as Waste Electrical & Electronic Equipment (WEEE). Any WEEE marked products must not be mixed with general household waste, but kept separate for the treatment, recovery and recycling of the materials used. Contact your local authority for details of recycling schemes in your area.