

# **5x2 4K60 Presentation Switcher with HDMI and HDBaseT output**

**User Manual**

**VER 1.0**

## Thank you for purchasing this product

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

## Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

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## 1. Introduction

The 5x1 4K60 Presentation Switcher supports 5 inputs including 3 HDMI ports, 1 VGA(YPbPr/CVBS) and 1 DisplayPort, scaling to HDMI and HDBaseT outputs (Mirrored). It offers flexibility application of audio which includes unbalance audio, MIC In and line out. The audio processor offers auto-mixer and auto-gain control to mix or reduce background audio in order to enhance major audio source. The system could be controlled and configured easily via Telnet, WebGUI, IR remote and RS-232. This switcher is a suitable solution for presentation purpose at classroom and conference room.

## 2. Features

- ☆ HDMI 2.0b, HDCP 2.2 compliant
- ☆ 3xHDMI, 1xVGA(YPbPr/CVBS), 1xDisplayPort, 1xMIC In, 4xunbalance audio input
- ☆ HDMI and HDBaseT(70M) outputs (Mirrored)
- ☆ HDMI/DP video resolutions up to 4K2K@60Hz(4:4:4),4K2K@30Hz, 1080p@120Hz
- ☆ VGA resolutions up to 1920x1200@60Hz
- ☆ Output resolutions up to 4K2K@30Hz
- ☆ Support automatic and manual switching modes
- ☆ Supports EDID management
- ☆ Supports pass-through of PCM 2CH
- ☆ Touch Panel button, WebGUI, IR remote, Desk Plate and RS-232 control

## 3. Package Contents

- ① 1× 5x1 4K60 Presentation Switcher
- ② 1x 24V/1A Power Adapter
- ③ 2× Mounting ears
- ④ 1x Remote Control Unit
- ⑤ 2x IR Receiver Cable(with carrier wave)
- ⑥ 2x IR Emitter Cable
- ⑦ 1x 3RCA (Female) to D-SUB (Male) Cable
- ⑧ 1x User Manual

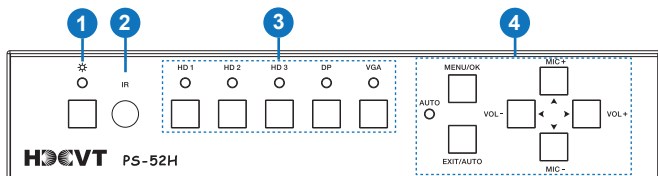
## 4. Specifications

| Technical                    |  |
|------------------------------|--|
| HDMI Compliance              | HDMI 2.0b  |
| DP Compliance                | DisplayPort 1.2a   |
| HDCP Compliance              | HDCP 2.2 and HDCP 1.4  |
| Video Input Resolutions      | HDMI/DisplayPort: up to 4K2K@50/60Hz(4:4:4)  |
|                              | CVBS: PAL/NTSC3.58/NTSC4.43/SECAM/PAL M/PAL N  |
|                              | YPBPR: 480i to 1080p   |
|                              | VGA: 640x480/60 to 1920x1200/60  |
| HDMI/HDBT Output Resolutions | 4K2K/30, 4K2K/25, 1920x1080p60, 1920x1080p50, 1280x720p/60, 1280x720p/50, 1024x768/60, 1280x800/60, 1360x768/60, 1400x1050/60, 1680x1050/60, 1920x1200/60                              |
| Audio Formats                | LPCM 2.0CH   |
| ESD Protection               | Human body model — ±8kV (air-gap discharge) & ±4kV (contact discharge)   |
| Connections                  |  |
| Input ports                  | 3x HDMI Type A [19-pin female]<br>1x Display Port [female]<br>1x VGA [female]<br>1x MIC input [3-pin phoenix port]<br>5x Stereo inputs [3-pin phoenix port]                            |
| Output ports                 | 1x HDMI Output Type A [19-pin female]<br>1x HDBaseT Out [RJ45]<br>1x Stereo Output [3-pin phoenix port]  |
| Control interfaces           | 1x IR in [3.5mm mini jack]<br>1x IR out [3.5mm mini jack]<br>1x CONTACT IN [6-pin phoenix port]<br>1x RS-232 [3-pin phoenix port]<br>1x Web GUI [RJ45]<br>1x USB Type A [5-pin female] |

| Connections           |   |
|-----------------------|---|
| Housing               | Metal   |
| Color                 | Black   |
| Dimensions            | 150mm [W] x 220mm [D] x 44mm [H]                            |
| Weight                | 1250[g]   |
| Power Supply          | DC 24V/1A Adaptor<br>(US/EU standards, CE/FCC/UL certified) |
| Power Consumption     | 9W [Main unit]<br>18W [Main unit + HDBaseT Receiver]        |
| Operation Temperature | 32 - 104°F / 0 - 40°C                                       |
| Storage temperature   | -4 - 140°F / -20 - 60°C                                     |
| Relative Humidity     | 20 - 90% RH (no condensation)                               |

## 5. Operation Controls and Functions

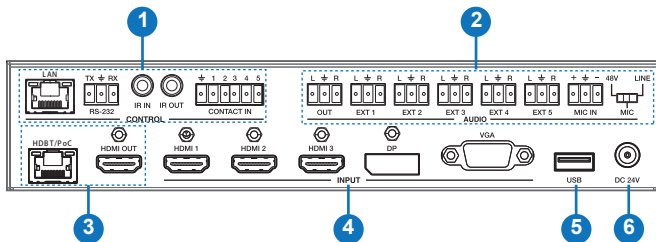
### 5.1 Front Panel



| Number | Name                       | Function description   |
|--------|----------------------------|--|
| 1      | Power button and indicator | When this device is switched to the standby mode by pressing Power button, the indicator will illuminate red. When switching to power on mode, the indicator will illuminate blue. |
| 2      | IR Window                  | Receiving IR signal from remote control.   |
| 3      | Input Source buttons       | Press these buttons for source selection. The active source will be illuminated to corresponding indicators on the front panel.  |

|   |                   |   |
|---|-------------------|---|
| 4 | Operation buttons | <ul style="list-style-type: none"> <li>Press "MENU/OK" button to enter the OSD immediately. Then the user can navigate using the 4-way arrow buttons. A new OSD setting is confirmed by pressing "MENU/OK" button.</li> <li>Press "EXIT/AUTO" will exit OSD when OSD is displayed. Press "EXIT/AUTO" for 3 seconds to auto switch on/off. When the button LED light on, means auto switch on.</li> <li>Press "MIC-/+" button to decrease or increase MIC volume. Press "VOL+/-" button to increase or decrease "Master volume".</li> <li>Press "MENU/OK" and "EXIT/AUTO" buttons simultaneously will lock/unlock the front panel. When locked, All LEDs on for ~1.5 second then show selected. When unlocked, All LEDs flash 3 times then show selected.</li> </ul> |
|---|-------------------|---|

## 5.2 Rear Panel



| Number | Name          | Function description  |
|--------|---------------|---|
| 1      | Control ports | <ul style="list-style-type: none"> <li>LAN: This port is the link for Web GUI control; connect to an active Ethernet link with an RJ45 terminated cable.</li> <li>RS-232: Serial control port, 3P captive screw connector, connects with a control device (such as a computer) to control the switcher or other device connected with the HDBT receiver.</li> <li>IR IN: Connects with IR receiver cable (with carrier wave), to receive IR signals sent by the IR remote or remote controller of other input/output device.</li> </ul> |

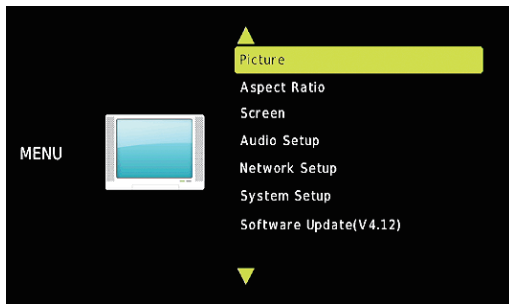
|            |                | <ul style="list-style-type: none"><li>● IR OUT: Connects with IR emitter cable used for controlling the local source device or the switcher.</li><li>● CONTACT IN: This input control reserving for direct source input selection. Connect ground pin (mark as <math>\oplus</math> on panel) with following pin number for individual source selection.</li></ul> <table><tr><th>Pin number</th><th>Source</th></tr><tr><td>Pin 1</td><td>HDMI1</td></tr><tr><td>Pin 2</td><td>HDMI2</td></tr><tr><td>Pin 3</td><td>HDMI3</td></tr><tr><td>Pin 4</td><td>Display Port</td></tr><tr><td>Pin 5</td><td>VGA/YPbPr/CVBS</td></tr></table>  | Pin number | Source | Pin 1 | HDMI1 | Pin 2 | HDMI2 | Pin 3 | HDMI3 | Pin 4 | Display Port | Pin 5 | VGA/YPbPr/CVBS |
|------------|----------------|--|------------|--------|-------|-------|-------|-------|-------|-------|-------|--------------|-------|----------------|
| Pin number | Source         |  |            |        |       |       |       |       |       |       |       |              |       |                |
| Pin 1      | HDMI1          |  |            |        |       |       |       |       |       |       |       |              |       |                |
| Pin 2      | HDMI2          |  |            |        |       |       |       |       |       |       |       |              |       |                |
| Pin 3      | HDMI3          |  |            |        |       |       |       |       |       |       |       |              |       |                |
| Pin 4      | Display Port   |  |            |        |       |       |       |       |       |       |       |              |       |                |
| Pin 5      | VGA/YPbPr/CVBS |  |            |        |       |       |       |       |       |       |       |              |       |                |
| 2          | Audio Ports    | <ul style="list-style-type: none"><li>● OUT: The audio comes from the input audio corresponding to the selected video source and mixed with MIC audio. Connects with amplifier for audio source broadcasting.</li><li>● EXT1/EXT2/EXT3/EXT4/EXT5: Select the external analog audio on OSD/WebGUI and insert the audio to HDMI1/2/3/DP/VGA video source then output to display and analog audio output port. The VGA Source select the EXT5 as default audio input.</li><li>● MIC IN: Plug microphone in for audio source output.</li><li>● 48V/MIC/Line : 48V phantom power mode (connects with phantom condenser microphone), MIC mode (connects with dynamic microphone and electrets condenser microphone) and LINE mode (connects with wireless microphone or line audio input).</li></ul> |            |        |       |       |       |       |       |       |       |              |       |                |
| 3          | Output Ports   | <ul style="list-style-type: none"><li>● HDBT Out: Connects with compatible Receiver for video and / or audio output. Support 24V POC function.</li><li>● HDMI Out: Connect to an HDMI display or AV Receiver for video and/or audio output.</li></ul>  |            |        |       |       |       |       |       |       |       |              |       |                |
| 4          | Input Ports    | These video input ports include 3 HDMI inputs, 1 Display Port input & 1 VGA input. VGA port support VGA, YPbPr and CVBS format. Factory default is VGA format.   |            |        |       |       |       |       |       |       |       |              |       |                |
| 5          | USB Port       | USB port connects with USB flash disk or other storage that contains the software update file to update the system firmware.   |            |        |       |       |       |       |       |       |       |              |       |                |
| 6          | Power          | Plug the 24V DC power supply into the unit and connect the adaptor to an AC outlet.  |            |        |       |       |       |       |       |       |       |              |       |                |

## 5.3 OSD MENU

The switcher provides a powerful OSD operation menu. Press MENU button on IR remote to enter in OSD menu, the users can change some settings through the OSD menu.

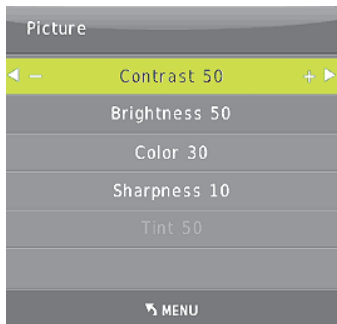
### 5.3.1 Main MENU

The Main MENU includes Picture mode, Aspect ratio, Screen, EDID switch, Audio setting, network and Software update options.



### 5.3.2 Picture

The picture MENU adjusts the picture quality.





Contrast 0-100 (default 50),  
Brightness 0-100 (default 50),  
Color 0-60 (default 30),  
Sharpness 0-20 (default 10),  
Tint 0-100 (default 50, for CVBS NTSC format only)

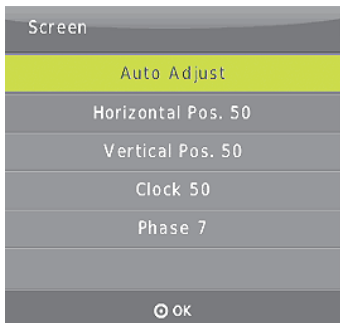
### 5.3.3. Aspect Ratio

The user can adjust picture output aspect ratio to 4:3, 16:9 or 16:10.



### 5.3.4 Screen

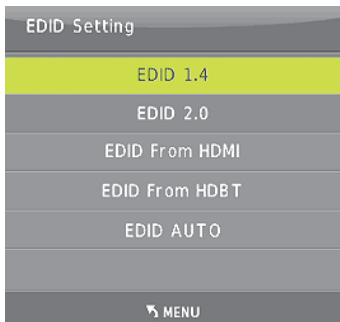
The screen MENU adjusts for VGA input only. The user can adjust horizontal, vertical position, clock and phase.



### 5.3.5 EDID

The EDID MENU adjusts for HDMI and Display port inputs only.

|                |  |
|----------------|--|
| EDID1.4        | 4K2K30,PCM 2.0                                     |
| EDID2.0        | 4K2K60,PCM 2.0                                     |
| EDID From HDMI | EDID copy from local HDMI port                     |
| EDID From HDBT | EDID copy from HDBaseT Receiver HDMI port          |
| EDID AUTO      | Auto compare HDMI and HDBT Receiver HDMI port EDID |



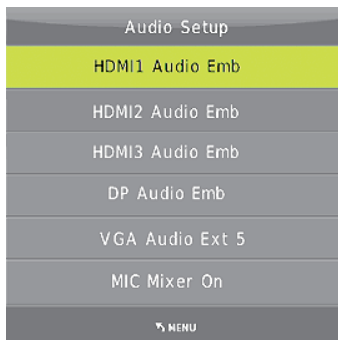
### 5.3.6 Audio Setup

The Audio Setting MENU select between Embedded or External analog audio to choose the desired audio output port for HDMI and DP input ports. Select MIC mixer mode: ON, AUTO, OFF.

**MIC mixer on:** The switcher will mix the source audio and MIC audio to the audio output (HDMI, HDBT, Audio output port).

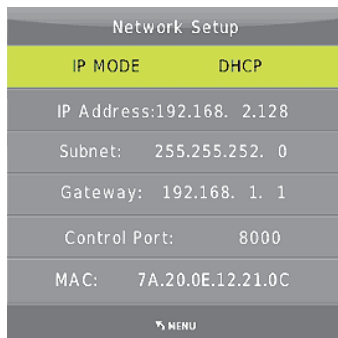
**MIC mixer auto:** The switcher will reduce the source audio volume automatic when it detects the MIC audio input.

**MIC mixer off:** The switcher will mute the MIC input audio.



### 5.3.7 Network setup

The network MENU will display the IP address.



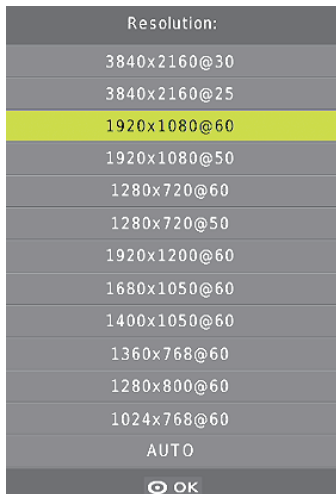
### 5.3.8 System Setup

The system setup menu includes output resolution, output hdcp, sleep timer, OSD time out, RS-232 Baud Rate. Test Pattern and Factory reset items.



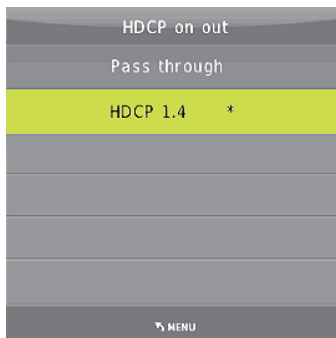
#### 5.3.8.1 Resolution

The switcher HDMI output resolutions support multiple modes. Through the system setup menu or press the “RES” button on the IR remote, the resolution menu will be displayed. The user can select suitable resolution for HDTV or monitor. Auto means that the HDMI resolutions based on the EDID information read from the display device.



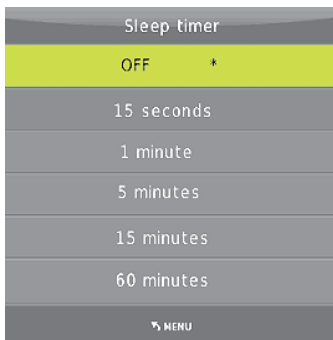
### 5.3.8.2 HDCP on out

Set the HDMI and HDBT port output HDCP status. Pass through means the output HDCP is follow the selected input source HDCP status. HDCP1.4 means the output HDCP will fix to HDCP1.4 status.



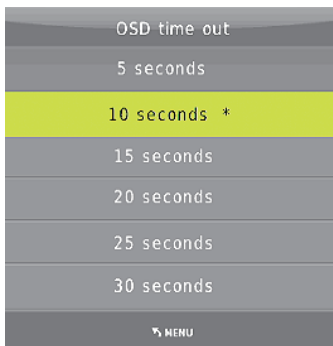
### 5.3.8.3 Sleep timer

Set the switcher sleep timer(the time for switcher detect input source no signal to standby mode). The default timer is set to OFF.



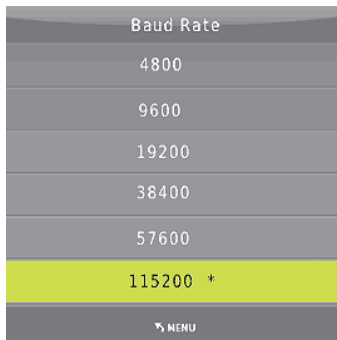
### 5.3.8.4 OSD time out

Set the OSD display time. the default time is set to 10 seconds.



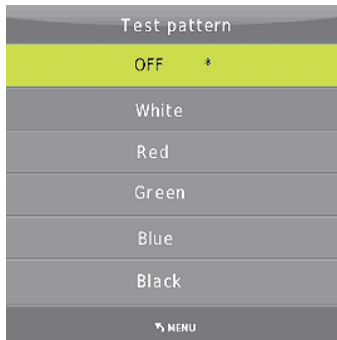
### 5.3.8.5 Baud Rate

Set the switcher RS-232 control port baud rate. the default value is set to 115200 bit/s.



### 5.3.8.6 Test pattern

Set the output test pattern type.



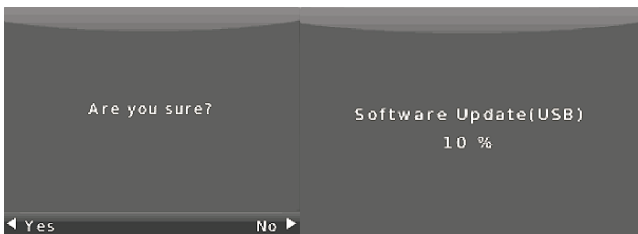
### 5.3.8.7 Reset default

Select Reset default -->YES enters to factory reset. The switcher will reset to factory default setting.(eg: HDMI1 input, audio mixer on, Output resolution set to 1920x1080 @60Hz,Baud rate set to 115200 bit/s etc.)

### 5.3.9 Software update

The switcher supports software updates via USB flash disk. The procedure is as follows:

- 1) Copy the file "MERGE.bin" to the root directory of a USB flash disk. (Make sure the file is copied to the root directory. The "MERGE.bin" file is provided/ authorized by our engineering department or from our website)
- 2) Plug the USB flash disk to the switcher USB port on its rear panel.
- 3) Press the MENU -->software update-->YES enters to start the update. The OSD will display the update process.





## 5.4 Remote Control & IR Operations

### 5.4.1 Remote Control



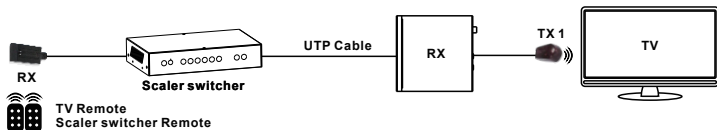
- ① **Power:** Press this button to power on to the switcher or set it to standby mode.
- ② **INPUT:** Press these buttons to select the input sources.
- ③ **ADJ:** Press this button to operate VGA input auto adjustment function;
- ④ **RES:** Press this button to select HDMI output resolution. (Press and hold 5 seconds or more, the HDMI output resolution will reset to 720p60Hz.)
- ⑤ **Menu operation buttons:**  
**MENU:** Press this button to enter in OSD menu.  
**EXIT:** Press this button to exit OSD menu.  
**OK:** Press this button to confirm operation.  
**UP/DWON/LEFT/RIGHT buttons:** OSD value setting.
- ⑥ **VOLUME:** Control master audio volume buttons.
- ⑦ **MIC:** Control MIC input audio volume buttons.

### 5.4.2 IR operations

As IR signal can be transmitted bi-directionally between the switcher and the HDBT receiver, it is able to use the IR remote to control the switcher or HDMI source devices.

#### 1) Control far-end device locally

To control the switcher or remote display device by using corresponding remote control.

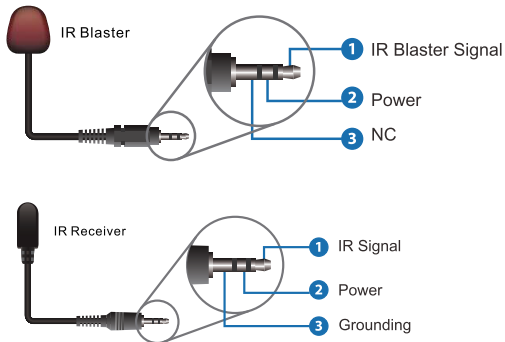


## 2) Control local device from remote

To control the switcher or local source device by using the corresponding remote controller.



## 3) IR(20KHz---60KHz) cable introduction



## 5.5 Auto-Switching function

The switcher has auto-switching and manual-switching modes. When the user select auto-switching mode, It will follows the following principles:

### 5.5.1.New input principle

Once a new input signal is detected, the switcher will switch to this new signal automatically.

### 5.5.2. Power rebooting principle

The switcher offers the function to remember the signal last used before power off. Once rebooted, it will automatically enter auto-switching mode, and then detect all inputs and memorize their connection status for future reboots. If the last used input signal is still available, then it will choose that signal. If not, it will detect all input signals with priority on HDMI1->HDMI2->HDMI3->DP->VGA (YPbPr/CVBS).

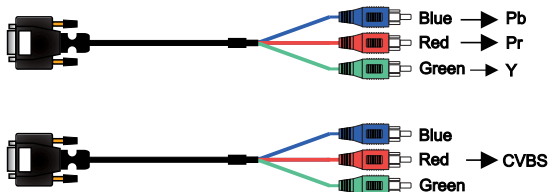
### 5.5.3. Signal removing principle

Once the current signal is removed, the switcher will detect all input signals with priority on HDMI1->HDMI2->HDMI3->DP->VGA (YPbPr/CVBS). It will transfer the first signal detected to the output.

Notice: Auto-switching function works only when there is a new input signal or if an input signal is removed.

### 5.6 VGA/YPbPr/CVBS input

The VGA input port is a multiple format port. It supports VGA/YPbPr/CVBS input signal. The switcher will auto detect the input signal type and format. The user can use the convert cable for YPbPr or CVBS signal input.



### 5.7 Connection of Microphone

The switcher provides one 2-level microphone input to accommodate different microphone input modes, including 48V phantom power mode, MIC mode and Line Mode.

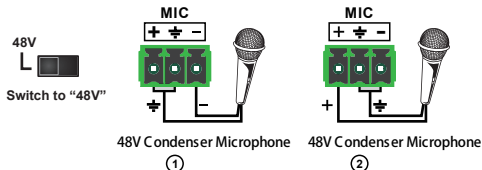
#### 5.7.1 48V mode

When switched to "48V" (It has a good frequency characteristic, high input impedance and high sensitivity in this mode), the MIC input will provide a 48V phantom power. This is only used for 48V condenser microphones.

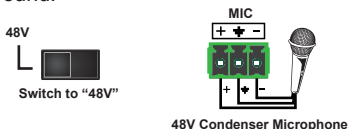
##### 1) Unbalanced connection:

"+" and "⚡" connect to ground, and "-" connects to signal.

"-" and "⚡" connect to ground, and "+" connects to signal.



**2) Balanced Connections:** "+" connects to positive, "-" connects to negative and "⏏" to ground.



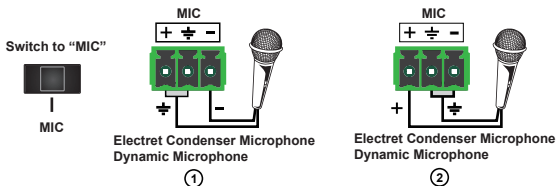
## 5.7.2 MIC mode

When switched to "MIC" (It has a low frequency characteristics, and wide frequency response in this mode), the microphone input is used for connecting dynamic microphones and electrets condenser microphone. There are two different connections:

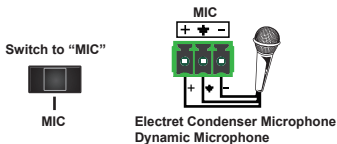
### 1) Unbalanced connection:

"+" and "⏏" connect to ground, and "-" connects to signal.

"-" and "⏏" connect to ground, and "+" connects to signal.



**2) Balanced connection:** “+” connects to positive, “-” connects to negative and “ $\div$ ” connects to ground.



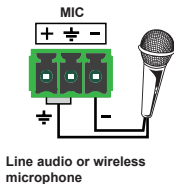
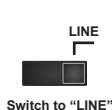
### 5.7.3 Line mode

When switched to “LINE” (It has a low frequency characteristics, and wide frequency response in this mode), the microphone input is used for connecting line audio or wireless microphones. There are two different connections:

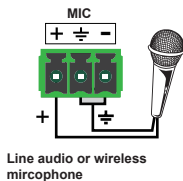
#### 1) Unbalanced connection:

“+” and “ $\div$ ” connect to ground, and “-” connects to signal.

“-” and “ $\div$ ” connect to ground, and “+” connects to signal.

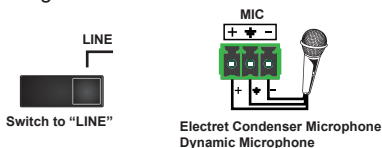


①



②

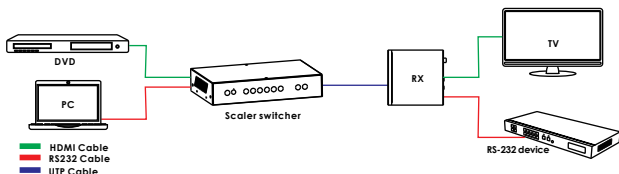
**2) Balanced connection:** “+” connects to positive, “-” connects to negative and “ $\div$ ” connects to ground.



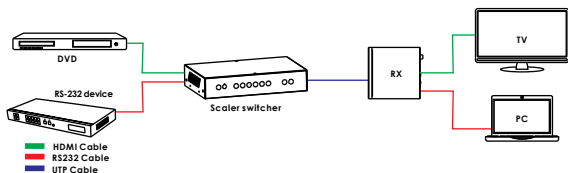
## 5.8 Operations of RS-232 Control

As RS-232 can be transmitted bi-directionally between the switcher and the HDBaseT receiver, it is able to control a third party RS-232 device locally or control the compact switcher bi-directionally.

### 1) Control the Switcher or 3rd Party Device from Local

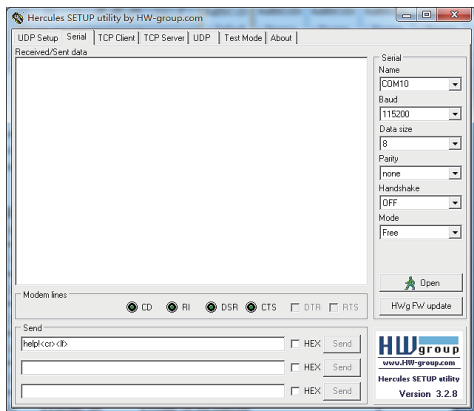


## 2) Control the Switcher or 3rd Party Device from remote Receiver



## 3) RS-232 Controller

Please connect the switcher with input devices and output device needed, then connect it with a computer that is installed with RS-232 control software (attention: the switcher RS-232 port settings must same with the software settings ,eg: baud rate, data bits, parity,stop bits). Double-click the software (Hercules) icon to run this software on your computer. The interface of the control software is showed as below:



## 4) RS232 Communication Commands

| Item | Command               | Description   |
|------|-----------------------|---|
| 0    | help!                 | Display all communication commands  |
| 1    | s factory reset!      | Return to factory reset setting   |
| 2    | r version!            | Read current FW version   |
| 3    | xyz!                  | Upgrade the switcher FW   |
| 4    | r power!              | Read the switcher power on/off status   |
| 5    | s power on!           | Power on the switcher   |
| 6    | s power off!          | Power off the switcher  |
| 7    | r lock!               | Read the switcher panel lock status   |
| 8    | s lock on!            | Lock on the panel control   |
| 9    | s lock off!           | Lock off the panel control  |
| 10   | s beep on!            | Enable the switcher Beep  |
| 11   | s beep off!           | Disable the switcher Beep   |
| 12   | r source!             | Read current input source   |
| 13   | s source 1!           | Switch HDMI1 input(1:HDMI1,2:HDMI2, 3:HDMI3,4:DisplayPort,5:VGA/YPBPR/C-VIDEO)  |
| 14   | r auto switch!        | Read auto switch function status  |
| 15   | s auto switch mode 1! | Enable auto switch function(1: Last connected source mode, 2: First connected source mode, 3: Priority source mode)   |
| 16   | s auto switch off!    | Disable auto switch function  |
| 17   | r output!             | Read output resolution  |
| 18   | s output 1!           | Setup output resolution at 3840x2160@30Hz<br>(1:3840x2160@30Hz,2:3840x2160@25Hz, 3:1920x1080@60Hz,4:1920x1080@50Hz, 5:1280x720@60Hz,6:1280x720@50Hz, 7:1920x1200@60Hz,8:1680x1050@60Hz, 9:1400x1050@60Hz,10:1360x768@60Hz, 11:1280x800@60Hz,12:1024x768@60Hz, 13.Out display EDID native resolution |
| 19   | r hdcp!               | Read HDMI/HDBT output hdcp enable status  |
| 20   | s hdcp bypass!        | Set HDMI/HDBT output to hdcp pass through mode  |
| 21   | s hdcp 1.4!           | Set HDMI/HDBT output to hdcp1.4 version   |
| 22   | r contrast!           | Read picture contrast status  |
| 23   | s contrast 0!         | Setup picture contrast 0(range:0-100)   |
| 24   | r brightness!         | Read picture brightness status  |
| 25   | s brightness 0!       | Setup picture brightness 0(range:0-100)   |
| 26   | r color!              | Read picture color status   |



|    |                   |   |
|----|-------------------|---|
| 27 | s color 0!        | Setup picture color 0(range:0-60)   |
| 28 | r sharpness!      | Read picture sharpness status   |
| 29 | s sharpness 0!    | Setup picture sharpness 0(range:0-20)   |
| 30 | r tint!           | Read picture tint status  |
| 31 | s tint!           | Setup picture tint 0(range:0-100,for CVBS NTSC format only)   |
| 32 | r aspect ratio!   | Read current input source output picture aspect ratio   |
| 33 | s aspect ratio 1! | Setup current input source output picture aspect ratio at 16:9 (1: 16:9 , 2: 4:3, 3:16:10 )   |
| 34 | r h size!         | Read current input source output horizontal overscan value  |
| 35 | s h size X!       | Set output horizontal over scan to (100+X)%(the default X value is 0 and the range is -10~10,the value is set for current input source. ) |
| 36 | r v size!         | Read current input source output vertical overscan value  |
| 37 | s v size X!       | Set output vertical over scan to (100+X)%(the default X value is 0 and the range is -10~10,the value is set for current input source.)    |
| 38 | r edid!           | Read switcher input port EDID status  |
| 39 | s edid 1!         | Setup input port EDID at HDMI1.4 standard (1: EDID1.4,2:EDID2.0,3: EDID copy HDMI 4:EDID copy HDBT,5:EDID AUTO)                           |
| 40 | s vga auto!       | Enable VGA auto adjust function   |
| 41 | r vga hpos!       | Read VGA horizontal position  |
| 42 | s vga hpos up!    | Setup VGA horizontal position up  |
| 43 | s vga hpos down!  | Setup VGA horizontal position down  |
| 44 | r vga vpos!       | Read VGA vertical position  |
| 45 | s vga vpos up!    | Setup VGA vertical position up  |
| 46 | s vga vpos down!  | Setup VGA vertical position down  |
| 47 | r vga clock!      | Read VGA input ADC sampling clock value   |
| 48 | s vga clock up!   | Increase VGA input ADC sampling clock value   |
| 49 | s vga clock down! | Decrease VGA input ADC sampling clock value   |
| 50 | r vga phase!      | Read VGA picture phase  |
| 51 | s vga phase up!   | Setup VGA picture phase up  |
| 52 | s vga phase down! | Setup VGA picture phase down  |
| 53 | r mixer!          | Read MIC mixer status   |
| 54 | s mixer on!       | Setup mic mixer on  |
| 55 | s mixer off!      | Setup mic mixer off   |
| 56 | s mixer auto!     | Setup mic mixer auto  |
| 57 | s auto vol!       | Set source audio volume when set to mixer auto mode   |

|    |                       |  |
|----|-----------------------|--|
| 58 | r auto vol!           | Read source audio volume when set to mixer auto mode   |
| 59 | r fade in time!       | Read source audio fade in time when set to mixer auto mode   |
| 60 | s fade in time 1000!  | Setup source audio fade in time when set to mixer auto mode.<br>(The fade in time range is 0~5000ms.)  |
| 61 | r fade out time!      | Read source audio fade out time when set to mixer auto mode  |
| 62 | s fade out time 1000! | Setup source audio fade out time when set to mixer auto mode<br>(The fade out time range is 0~5000ms.) |
| 63 | r out vol!            | Read output audio volume   |
| 64 | s out vol 0!          | Setup output audio volume 0(0~32)  |
| 65 | s out vol up 1!       | Increase output audio volume 1 level   |
| 66 | s out vol down 1!     | Decrease output audio volume 1 level   |
| 67 | r mic vol!            | Read mic volume  |
| 68 | s mic vol 0!          | Setup mic volume 0(0~32)   |
| 69 | s mic vol up 1!       | Increase mic input audio volume 1 level  |
| 70 | s mic vol down 1!     | Decrease mic input audio volume 1 level  |
| 71 | s mic mute on!        | Mute mic input audio   |
| 72 | s mic mute off!       | Un-mute mic input audio  |
| 73 | s audio mute on!      | Mute source input audio  |
| 74 | s audio mute off!     | Un-mute source input audio   |
| 75 | s mute on!            | Mute source and mic input audio  |
| 76 | s mute off!           | Un-mute source and mic input audio   |
| 77 | r hdmi1 audio!        | Read HDMI1 audio source  |
| 78 | s hdmi1 audio 0!      | Choose audio source as HDMI1 audio input<br>(0: Emb,1: Ext1,2: Ext2,3:Ext3,4:Ext4,5:Ext5)              |
| 79 | r hdmi2 audio!        | Read HDMI2 audio source  |
| 80 | s hdmi2 audio 0!      | Choose audio source as HDMI2 audio input<br>(0: Emb,1: Ext1,2: Ext2,3:Ext3,4:Ext4,5:Ext5)              |
| 81 | r hdmi3 audio!        | Read HDMI3 audio source  |
| 82 | s hdmi3 audio 0!      | Choose audio source as HDMI3 audio input<br>(0: Emb,1: Ext1,2: Ext2,3:Ext3,4:Ext4,5:Ext5)              |
| 83 | r dp audio!           | Read Displayport audio source  |
| 84 | s dp audio 0!         | Choose audio source as Displayport audio input<br>(0: Emb,1: Ext1,2: Ext2,3:Ext3,4:Ext4,5:Ext5)        |
| 85 | r vga audio!          | Read Displayport audio source  |
| 86 | s vga audio 1!        | Choose audio source as VGA audio input<br>(1: Ext1,2: Ext2,3:Ext3,4:Ext4,5:Ext5)                       |

|     |                           |  |
|-----|---------------------------|--|
| 87  | r ip mode!                | Read IP mode   |
| 88  | s ip mode 1!              | Setup IP mode at Static (1:Static,2:DHCP)  |
| 89  | r ip addr!                | Read IP address  |
| 90  | s ip addr 192.168.1.255!  | Setup IP address at 192.168.1.255  |
| 91  | r subnet!                 | Read subnet  |
| 92  | s subnet 255.255.255.252! | Setup subnet at 255.255.255.252  |
| 93  | r gateway!                | Read gateway   |
| 94  | s gateway 192.168.1.1!    | Setup gateway at 192.168.1.1   |
| 95  | r port!                   | Read control port  |
| 96  | s port 8000!              | Setup control port at 8000   |
| 97  | r sleep time!             | Read switcher sleep time(no signal to standby mode time)   |
| 98  | s sleep time 1!           | Set switcher sleep time(no signal to standby mode time)<br>(1: OFF , 2: 15seconds, 3: 1minutes ,4: 5minutes,<br>5:15minutes, 6: 60minutes) |
| 99  | r osd time!               | Read OSD time out  |
| 100 | s osd time 1!             | Set OSD time out<br>(1: 5seconds, 2: 10seconds,3: 15seconds ,<br>4: 20seconds, 5: 25seconds , 6: 30seconds )                               |

## 5.9 Web GUI Control

The switcher can be controlled via Web browser, which contains General, Setup and Network Settings. After the active Ethernet link with an RJ45 terminated cables are connected, the IP address is obtained and the IP address is entered in the Web browser, the switcher can be controlled. If IP address is unknown, there are two methods to obtain the IP address.

1. Obtain the IP address and port number via the information from the MENU-> Network OSD by the remote control.
2. Obtain the IP address and port number via RS-232 Controller.

For example, the obtained IP address is 192.168.1.100 and port number is 8000.

Input <http://192.168.1.100> in the address bar of the web browser.

## 1) General page

General Video Audio Network Advanced 5x1 Presentation Switcher

**INPUT**

Audio Emb   
Auto Switch OFF

**OUTPUT**

Resolution 1920x1080@60   
Aspect Ratio 16 : 9

**EDID/HDCP**

Set EDID EDID 1.4   
Set HDCP HDCP 1.4

## 2) Video page

General Video Audio Network Advanced 5x1 Presentation Switcher

**Picture**

Contrast  50  
Brightness  50  
Color  30  
Sharpness  10

**H Size**  0  
**V Size**  0

**VGA**

H Position - 0 +  
V Position - 0 +  
Clock - 0 +  
Phase - 0 +

## 3) Audio page

General Video Audio Network Advanced 5x1 Presentation Switcher

**Volume**

Audio Volume 32

MIC Volume 25

**Mic Mixer**

Mixer

Audio Volume: 16   
AudioVol:16

Fade In time: 1000 ms   
Time:1000

Fade out time: 1000 ms   
Time:1000

## 4) Network page

General Video Audio **Network** Advanced 5x1 Presentation Switcher

### Network Configuration

Static ☒ DHCP ☐ Status

IP: 192, 168, 2, 229

Subnet: 255, 255, 252, 0

Gateway: 192, 168, 1, 1

MAC: 00:1c:91:03:80:01

port: 8000

Set

### Status Log

```
TFTP: ON
IP: 192.168.2.229
Subnet: 255.255.252.0
Gateway: 192.168.1.1
Port: 8000
MAC: 00:1c:91:03:80:01
```

## 5) Advanced page

General Video Audio Network **Advanced** 5x1 Presentation Switcher

Beep off ☒ on Power off ☒ on

**Factory Reset**

Serial Baudrate: 115200

Sleep Timer: OFF

OSD Time Out: 10 seconds

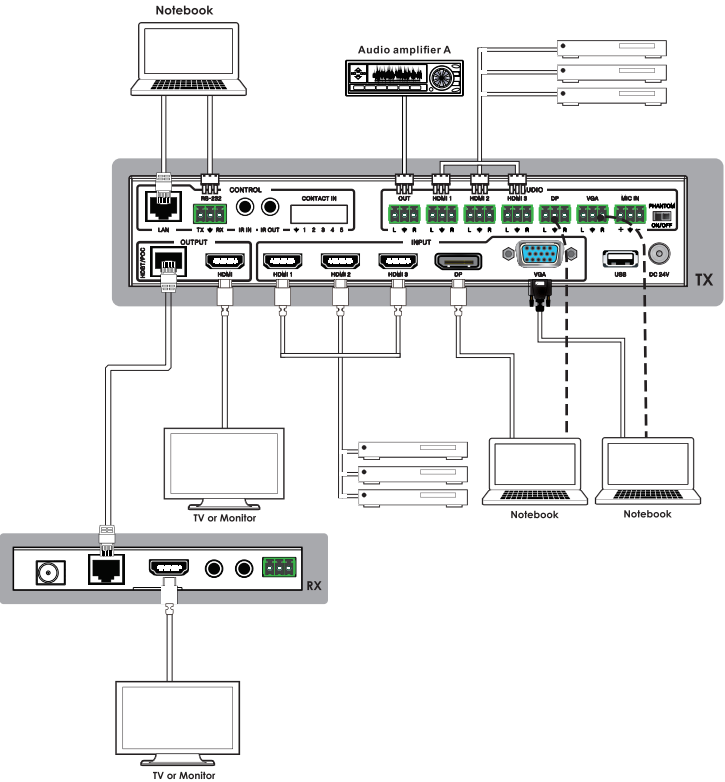
Please Insert the USB flash drive.

**Upgrade Scaler**

FW Version: 2.18

WebGUI Version: V2.09

# 6. Connection Diagram



- 1.Connect HDMI source devices (e.g. Blue-ray DVD) to HDMI input ports of the switcher with HDMI cable. Connect VGA source device (eg.PC/Note-book) to VGA input port of the switcher with a VGA cable.
- 2.Connect HDMI display device to the HDMI output port of the switcher with a HDMI cable.
- 3.Connect UTP Cable to the HDBT receiver.
- 4.Connect speaker, headphone or specialized amplifier to AUDIO output port of the switcher.
- 5.Connect control device (e.g. PC) to RS-232 port of the switcher.
- 6.Connect DC24V power adaptor to the power port and power on.