



# 8x2 HDMI 2.0 Presentation Switcher

VLPT-82HT70V



## 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 18Gbps 8x2 seamless UHD presentation switcher supports multi-format signal processing. Supported video resolution is up to 4K@60Hz 4:4:4. The product can scale the video, extract or embed the audio, and output the signal through 1 HDMI port and 1 HDBaseT port. For Audio output, there are 2x20W speaker output and balanced stereo audio output. The product supports EDID management.

# 2. Features

- ☆ HDMI 2.0, HDCP 2.2 and DP 1.2 compliant
- ☆ Support 18 Gbps video bandwidth
- ☆ Support video resolution up to 4K@60Hz 4:4:4
- ☆ Mirrored output with HDMI and HDBaseT output ports
- ☆ The HDBaseT port can extend the transmission distance up to 70 meters(1080P) and 45 meters(4K@60Hz)
- ☆ Support seamless switching
- ☆ 8 video inputs: 6 HDMI ports, 1 DP port, 1 VGA port
- ☆ 9 audio source selections (LR1 to LR8 and embedded audio) for HDMI/DP input  
8 Audio source selections (LR1 to LR8 ) for VGA video input
- ☆ Microphone mixing or independent function
- ☆ 3 Microphone modes: 48V (PHANTOM POWER) / MIC / LINE
- ☆ 2x20W speaker output and balanced audio output
- ☆ Speaker and Microphone volume can be controlled by front panel or PC Tool
- ☆ Support front panel, RS-232, TCP/IP (LAN 10M/100M) control
- ☆ IR IN/OUT and RS-232 IN/OUT are superimposed on HDBaseT transmission
- ☆ Support EDID management
- ☆ Additional IO function (2 outputs, 2 inputs)

**Note:** When VGA input is active, there is no seamless switching for this source.

# 3. Package Contents

- ① 1 x 8x2 Seamless UHD Presentation Switcher
- ② 1 x HDBaseT Receiver
- ③ 1 x AC Power Cord
- ④ 1 x User Manual
- ⑤ 2 x Mounting Ear & 2 x Handle
- ⑥ 12 x 3-pin Phoenix Connector
- ⑦ 1 x 4-pin Phoenix Connector
- ⑧ 1 x 5-pin Phoenix Connector
- ⑨ 1 x IR Blaster Cable (1.5 meters)
- ⑩ 1 x IR Receiver Cable (1.5 meters)

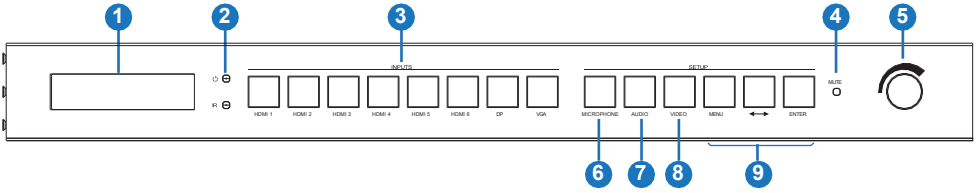
## 4. Specifications

<b>Technical</b>	
HDMI Compliance	HDMI 2.0
HDCP Compliance	HDCP 2.2
DP Version	DP 1.2
Video Bandwidth	18Gbps
<b>Video Resolution</b>	
Input Video Resolution	800x600@60Hz, 1024x768@60Hz, 1280x768@60Hz, 1280x800@60Hz, 1280x1024@60Hz, 1360x768@60Hz, 1366x768@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1200@60Hz. 480p, 576p, 720p, 1920x1080i, 1920x1080p, 3840x2160@24Hz/25Hz/30Hz/50Hz/60Hz, 4096x2160@24Hz/25Hz/30Hz/50Hz/60Hz. <b>Note:</b> This device does not support 4:2:0 color space
Output Video Resolution	Auto, 3840x2160@60Hz, 3840x2160@50Hz, 3840x2160@30Hz, 1920x1080@60Hz, 1920x1080@50Hz, 1280x720@60Hz, 1024x768@60Hz, 1360x768@60Hz, 1600x1200@60Hz, 1920x1200@60Hz.
EDID Option	Auto, Manual, 3840x2160@60, 3840x2160@30, 1920x1080@60, 1280x720@60, 1920x1200@60
HDMI Amplitude	T.M.D.S +/- 0.4Vpp
Differential Impedance	100±15ohm
ESD Protection	Human-body Model: ±8kV (Air-gap discharge) , ±4kV (Contact discharge)
<b>RS232/Ethernet Control</b>	
Baud rate and Protocol	Baud rate: 9600, data bit: 8 Stop bit: 1, no parity checking
Ethernet	IE10.0+, HTML5
<b>Mechanical</b>	
Housing	Metal Enclosure
Color	Black
Dimensions	430mm (W)×220mm (D)×44mm (H)
Weight	3.2Kg
Power Supply	AC 110 - 240V
Power Consumption	60W (Max)
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 70°C / -4°F ~ 158°F
Relative Humidity	10%~50% RH (non-condensing)

# 5. Operation Controls and Functions

## 5.1 Switcher Panel

### Front Panel

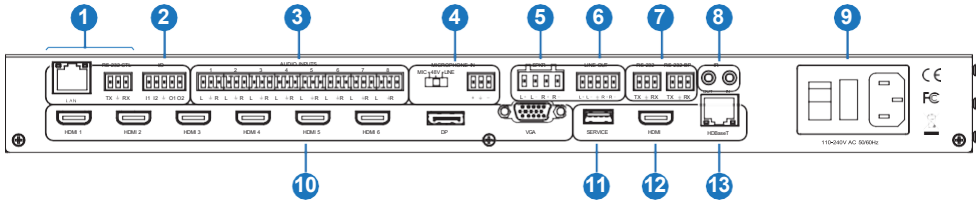


NO.	Name	Function Description
1	LCM screen	Display EDID, output resolution, audio configuration and so on.
2	Power LED	When the product is powered on, the red LED will be on; When the product is powered off, the red LED will be off.
3	Input buttons	Press these buttons to switch the corresponding HDMI/DP/VGA input source. When the button is selected, it will illuminate in red.
4	MUTE LED	When the speaker is muted, the LED will be on.
5	Volume knob & button	<ul style="list-style-type: none"> <li>Rotate the knob to adjust speaker volume (range 0~50).</li> <li>Press the knob to mute/unmute the speaker.</li> <li>This knob can also be used to control MIC volume, please refer to the description about MICROPHONE.</li> </ul>
6	MICROPHONE button	<ul style="list-style-type: none"> <li>Short press the button to switch on/off MIC input. When switching on, the button will illuminate in red.</li> <li>Long press the button, the LCM screen will display the MIC volume control interface, then rotate the volume knob to adjust MIC volume.</li> </ul>
7	AUDIO button	Press the button to switch on/off the current audio source except MIC. When switching on, the button will illuminate in red.
8	VIDEO button	Press the button to switch on/off video input. When switching on, the button will illuminate in red; When switching off, the video output will be replaced with black screen, but audio input/output will continue.
9	MENU, ←, ENTER button	<p>These three buttons are combination buttons, which can be used to adjust output resolution/EDID management/ audio source selection for each input port/output HDCP mode.</p> <p>Press MENU button to switch main menu, press ← button to switch sub option, and press ENTER button to confirm.</p>

#### Note:

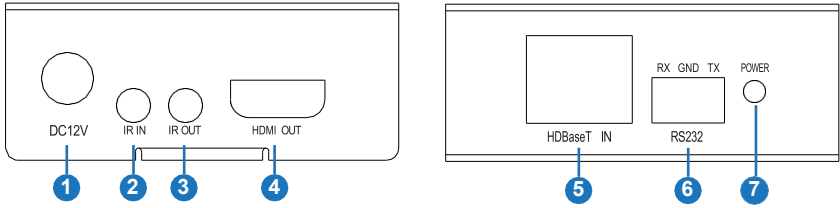
- When selecting the output resolution, if user selects AUTO, the device will output the prefer resolution of displayer.
- When selecting the EDID option, if user selects AUTO, the device will copy the EDID of downstream displayer to each input port; if user selects MANUAL, the device will use the manual EDID which defined by PC Tool as current EDID selection. Please refer to PC Tool section.

## Rear Panel



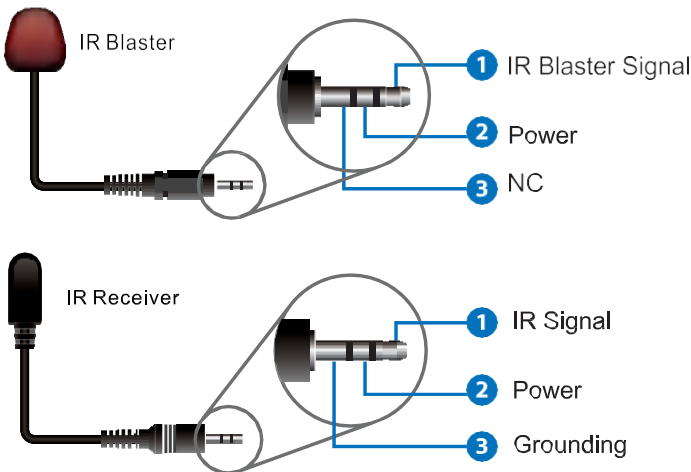
No.	Name	Function Description
1	PC control	LAN port: Connect to a router. RS-232 CTL: Connect to a PC or control system.
2	I/O port	I1 & I2 are for input level detecting and O1 & O2 are for output level setting. Please refer to PC Tool section for I/O configuration.
3	AUDIO INPUTS	Audio input ports, connect to external audio source device such as PC or DVD.
4	MICROPHONE IN	Dip switch: Used to switch 48V (PHANTOM POWER)/MIC /LINE microphone modes. Phoenix connector: Used to connect microphone devices.
5	SPKR port	Audio output port, connect to audio output device such as speaker.
6	LINE OUT port	Balanced audio output port, connect to a speaker.
7	RS-232 ports	RS-232: Reserved port. RS-232 BP: Used to transmit a separate RS-232 signal superimposed on HDBaseT transmission.
8	IR OUT / IN	Connect to IR receiver/blaster cable. Used to transmit IR signal superimposed on HDBaseT transmission.
9	Power switch & port	Power switch: Switch on / off the power supply. Power port: Connect to 100~240V AC 50/60Hz power cord.
10	Input ports	6 HDMI ports, 1 DP port, 1 VGA port. Connect to source devices such as DVD or PS4.
11	SERVICE port	Firmware update port.
12	HDMI port	HDMI output port, connect to HDMI display device such as TV or monitor with an HDMI cable.
13	HDBaseT port	HDBaseT output port, connect to the HDBaseT Receiver via a CAT cable.

## 5.2 HDBaseT Receiver Panel



No.	Name	Function Description
1	DC 12V	Plug the DC 12V/1A power cord into this port and connect the adapter to AC wall outlet.
2	IR IN	Connect to IR receiver cable, the IR signal will emit to IR OUT port of the switcher.
3	IR OUT	Connect to IR blaster cable, the IR emit signal is from IR IN port of the switcher.
4	HDMI OUT port	HDMI output port, connect to HDMI display device such as TV or monitor with HDMI cable.
5	HDBaseT IN port	HDBaseT input port, connect to the HDBaseT output port of the switcher with a CAT cable.
6	RS-232 port	Connect to a PC or control system by 3-pin phoenix connector cable to transmit command between the switcher and HDBaseT Receiver.
7	POWER LED	Power LED indicator. LED will be on when the device is connected with power supply.

## 5.3 IR Cable Pin Assignment

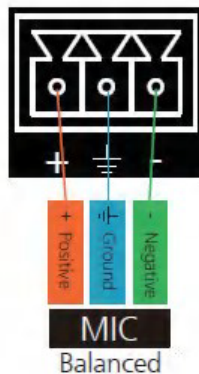


## 6. Microphone Connection

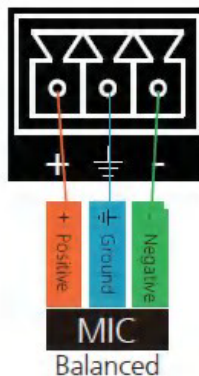
### MIC (Dynamic MIC)



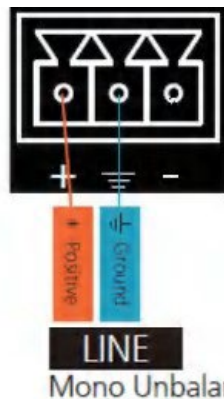
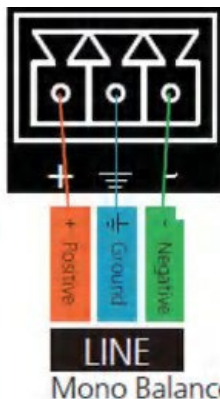
Connect dynamic or self-powered microphones in this mode.



Use this setting for phantom powered microphones. Supplies 48 volts.



Connect wireless microphone receivers (or other sources) with line level outputs using this setting. Either balanced, unbalanced, mono, or two channel connections may be used.

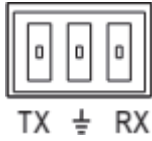




## 7. RS-232 and LAN Control

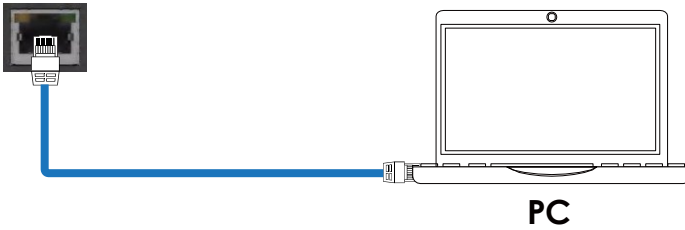
### 7.1 RS-232 Connector

RS-232 control, baud rate 9600, 3-pin Phoenix connector. Pins configuration is as bellow.



Pin	Description
TX	Switcher → PC
⏏	Ground
RX	Switcher ← PC

### 7.2 Ethernet Control and Connection



**Note :** Factory default network setting :

IP Type	Static IP
Static IP	192 . 168 . 0 . 247
Subnet Mask	255 . 255 . 255 . 0
Gateway	192 . 168 . 0 . 1

### 7.3 PC Tool

#### 7.3.1 RS-232 Control

**Step 1.** Connect the device to PC through the RS-232 port.

**Step 2.** Open the Presentation Switcher PC Tool, select “UART” in Ctrl mode and click “Connected”.



User can do the following operations on the above page:

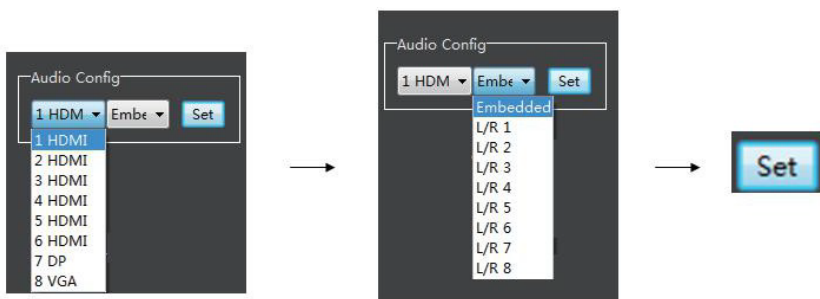
① **EDID MANUAL**

User can read the EDID of displays or open one existing EDID file and write to input ports . This EDID data will be stored in device as manual EDID data.

② **Audio Configure**

This is used to configure audio source for each input port.

For example, set HDMI 1 audio with embedded audio, user can follow below steps.



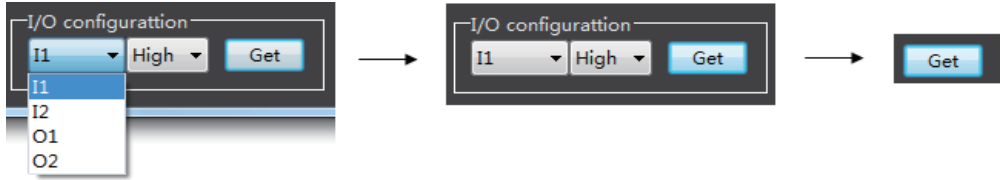
③ **Auto Source**

After being activated, the device will automatically switch to the last activated input.

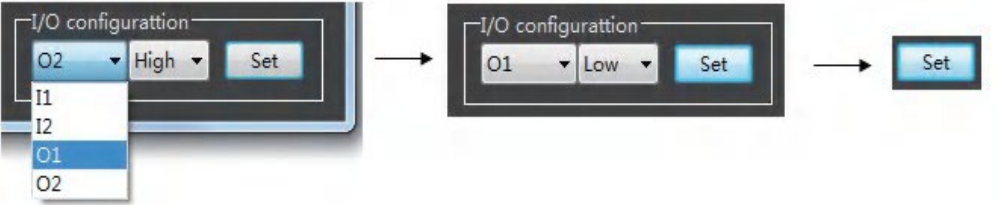
It is suggested not to activate Auto Source function.

#### ④ IO Configure

This is used for some special control  
To get I1 level as below steps.



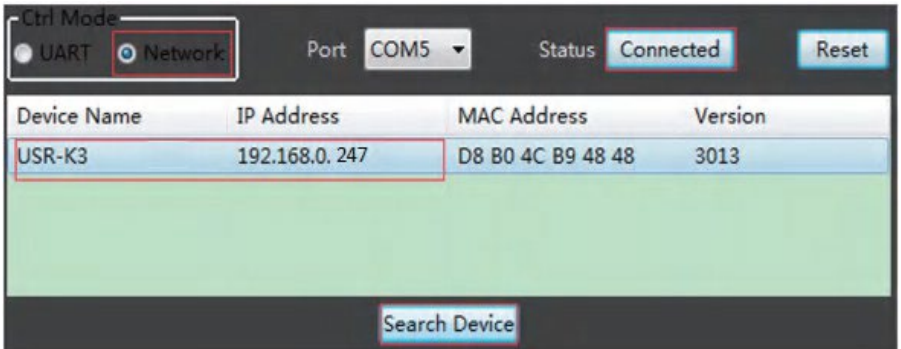
To set O1 level to low as below steps.



### 7.2.2 LAN/WEB Control

**Step 1.** Connect the device to PC through the LAN port, then set the IP address of PC to be in the same network segment with the switcher.

**Step 2.** Open the Presentation Switcher PC Tool, select “Network” in Ctrl mode and click “Search Device”, then click one item in the list to select the device, click “Connected” to control via Network.



Default IP address is 192.168.0.247.

**Step 3.** Open the web browser on PC, enter the IP address which you get in the searching list, click “Enter”, then the login interface will show.



**Step 4.** After logging in, user can check the basic information about the switcher.

# 8. Connection Diagram

