VigilLink VLPT-42H100 Multi Format Collaboration Switcher User Manual

Contents

VigilLink VLPT-42H100 Multi Format Collaboration Switcher

Product Information

The 4×2 HDMI/USB-C 4K 18Gbps Multi-format Collaboration Switcher with HDBaseT 3.0 is a versatile device designed for audio and video collaboration. It features 3 HDMI inputs, 1 USB-C input, 1 HDMI output, and 1 HDBT output. The switcher supports video up to 4K/60 4:4:4 with HDCP 2.3 compliance and HDBaseT 3.0 extension for uncompressed 4K video, embedded audio, control, and USB over distances up to 330 feet (100 meters). The USB-C input supports DP Alt mode for A/V, USB 2.0, 100M Ethernet, and 60W charging for the source device. All inputs and the local HDMI output support 4K HDR and 4K/60 4:4:4 at HDMI data rates up to 18 Gbps. It also supports downscaling from 4K to 1080p for the HDMI and HDBaseT outputs when connected to an HD sink. The switcher includes USB 2.0 and USB-C interfaces for four host PCs and five peripheral devices such as a camera, microphone, speakerphone, or keyboard and mouse. The receiver also supports local HDMI and USB inputs for BYOD or PC devices. Both the host and receiver support audio de-embedding to analog balanced or unbalanced output.

Specifications

- **HDMI Compliance:** Technical HDMI Compliance
- **HDCP Compliance:** HDCP Compliance
- **DP Version:** DP Version
- **Video Bandwidth:** Video Bandwidth
- **Video Resolution:** Video Resolution
- **IR Level:** IR Level
- **IR Frequency:** IR Frequency
- **Color Space:** Color Space
- **Color Depth:** Color Depth
- **Audio Formats:** Audio Formats
- **Transmission Distance:** Transmission Distance
- **HDR:** HDR
- **ESD Protection:** ESD Protection
- **Connection:**
  - **Host:**
    - **Input:** 3 x HDMI INPUT [Type A, 19-pin female], 1 x USB-C [24-pin female]
    - **Output:** 1 x HDMI OUTPUT [Type A, 19-pin female], 1 x HDBT OUTPUT [RJ45], 1 x AUDIO OUTPUT [5pin-3.81mm phoenix connector]

- **Control:** 1 x RS-232 [3pin-3.81mm phoenix connector], 1 x TCP/IP [RJ45], 3 x USB HOST [USB Type B], 3 x USB DEVICES [USB Type A], 1 x IR IN [3.5mm stereo mini-jack], 1 x IR OUT [3.5mm stereo mini-jack]

Product Usage Instructions

1. Read the user manual carefully for optimum performance and safety.
2. Use surge protection systems to protect the product from electrical spikes, surges, electric shock, and lightning strikes.
3. Ensure the use of UTP connectors for proper connectivity. Do not cross connect.
4. Connect the desired HDMI and USB-C input sources to the corresponding input ports on the switcher.
5. Connect the HDMI output port to the desired display device.
6. If required, connect the HDBT output to a compatible receiver device.
7. If using peripheral devices, connect them to the USB 2.0 and USB-C interfaces on the switcher.
8. For BYOD or PC devices, connect them to the local HDMI and USB inputs on the receiver.
9. If audio de-embedding is needed, connect the analog balanced or unbalanced output to the appropriate audio devices.
10. Ensure all connections are secure and properly seated.
11. Refer to the user manual for further instructions on control options such as front panel button, RS-232, TCP/IP, and IR remote.

INTRODUCTION

This 4×2 collaboration switcher features 3 HDMI inputs, 1 USB-C input, 1 HDMI output and 1 HDBT output. It supports video up to 4K/60 4:4:4 with HDCP 2.3 and features HDBaseT 3.0 extension for uncompressed 4K video, embedded audio, control and USB over distances up to 330 feet (100 meters). USB-C input supports DP Alt mode for A/V, USB 2.0, 100MEthernet and 60W charging for source device. All inputs and the local HDMI output support 4K HDR and 4K/60 4:4:4 at HDMI data rates up to 18 Gbps. Additionally, 4K to 1080p downscaling is available for the HDMI and HDBaseT outputs when connected to an HD sink. The integrated USB extension addresses the challenge of connecting between USB devices at remote locations and is ideal for software video conferencing and touch or interactive displays. This collaboration switcher includes USB 2.0 and USB-C interfaces for four host PCs, plus five peripheral devices such as a camera, microphone, speakerphone, or keyboard and mouse. The receiver also supports local HDMI and USB inputs for BYOD or PC devices. Host and RX both support audio de-embedded to analog balanced or un-balanced output.

FEATURES

- 4×2 Collaboration Switch with HDMI/HDBT 3.0 330ft(100m) extension
- HDMI 2.0b, HDCP 2.3, 18Gbps
- HDBaseT 3.0 4K@60Hz up to 330ft(100m)
- Supports HDR, HDR10+, Dolby Vision LLM, HLG
- **Host:** 1x USB-C, 3x HDMI inputs, 3x USB 2.0 hosts and 3x USB 2.0 devices
- **Remote:** 1x HDBT, 1x HDMI input, 1x USB 2.0 hosts and 2x USB 2.0 clients
- USB-C supports ALT-DP mode for A/V, USB 2.0 data, and power charging up to 60 watts
- 4K to 1080p downscaling features on all HDMI outputs, no frame rate conversion
- Host/Remote both support analog audio de-embedding
- CEC and RS-232 external display control on both host and remote

- EDID management
- Host supports POE/PSE, Remote supports POE/PD (Remote doesn’t have an external DC power supply)
- The front panel button, RS-232, and TCP/IP control (Host TCP/IP port for API and Web GUI)
- The host half rack size for easy installation

PACKAGE CONTANT

1. 1 x 4×2 Collaboration Switcher
2. 1 x HDBaseT Receiver
3. 1 x IR Blaster Cable (1.5 meters)
4. 1 x IR Wideband Receiver Cable (1.5 meters)
5. 2 x 3pin-3.5mm Phoenix Connector (male)
6. 2 x 5pin-3.5mm Phoenix Connector (male)
7. 4 x Mounting Ear
8. 8 x Machine Screw
9. 1 x 24V/6A Desktop Power Supply & 1 x AC Power Cord (1.5 meters)
10. 1 x IR Remote
11. 1 x User Manual

Specifications

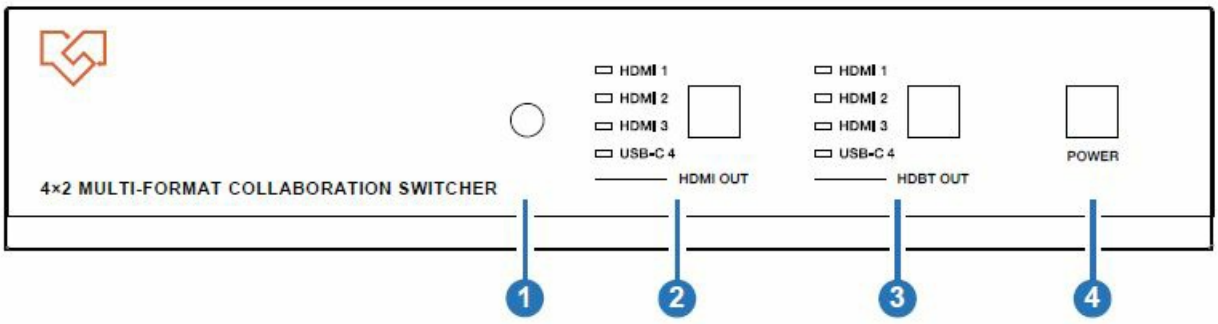
Technical	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2
DP Version	DP 1.2
Video Bandwidth	18Gbps
Video Resolution	Up to 4K@60Hz 4:4:4
IR Level	12Vp-p
IR Frequency	Wideband 20K-60KHz
Color Space	Input: 8/10/12-bit, 8-bit (4K60Hz 4:4:4)
Color Depth	RGB, YCbCr 4:4:4 / 4:2:2, YUV 4:2:0
Audio Formats	**USB-C/HDMI/HDBT:** LPCM, Dolby Digital/Plus/EX, Dolby True HD, Dolby Atmos, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD **AUDIO OUT** [Analog audio, balanced 2CH (Max output level 2Vrms) & unbalanced 2CH (Max output level 1Vrms)]
Transmission Distance	4K60 — 328ft/100m
HDR	HDR, HDR10, HDR10+, Dolby Vision, HLG
ESD Protection	Human-body Model: ±8kV (Air-gap discharge) , ±4kV (Contact discharge)
Connection	
Host	Input: 3 x HDMI INPUT [Type A, 19-pin female] 1 x USB-C [24-pin female] Output: 1 x HDMI OUTPUT [Type A, 19-pin female] 1 x HDBT OUTPUT [RJ45] 1 x AUDIO OUTPUT [5pin-3.81mm phoenix connector] Control: 1 x RS-232 [3pin-3.81mm phoenix connector] 1 x TCP/IP [RJ45] 3 x USB HOST [USB Type B] 3 x USB DEVICES [USB Type A] 1 x IR IN [3.5mm stereo mini-jack] 1 x IR OUT [3.5mm stereo mini-jack]

Remote	Input: 1 x HDMI IN [Type A, 19-pin female] 1 x HDBaseT IN [RJ45] Output: 1 x HDMI OUT [Type A, 19-pin female] 1 x LINE OUT [5pin-3.81mm phoenix connector] Control: 1 x RS-232 [3pin-3.81mm phoenix connector] 1 x USB HOST [USB Type B] 2 x USB DEVICES [USB Type A] 1 x SERVICE [Micro USB] 1 x IR IN [3.5mm stereo mini-jack] 1 x IR OUT [3.5mm stereo mini-jack]
Mechanical	
Housing	Front panel: Aluminum; Rear case: Metal Enclosure
Color	Black
Dimensions	Host: 220mm [W]×150mm [D]×44mm [H] Remote: 140mm [W]×105mm [D]×21.5mm [H]
Weight	Host: 1.16Kg; Remote: 424g
Power Supply	Input: AC100 – 240V 50/60Hz Output: DC 24V/6A (US/EU standard, CE/FCC/UL certified)
Power Consumption	100W (Max)
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F
Relative Humidity	20%~90% RH (non-condensation

Operation Controls and Functions

Host Panel

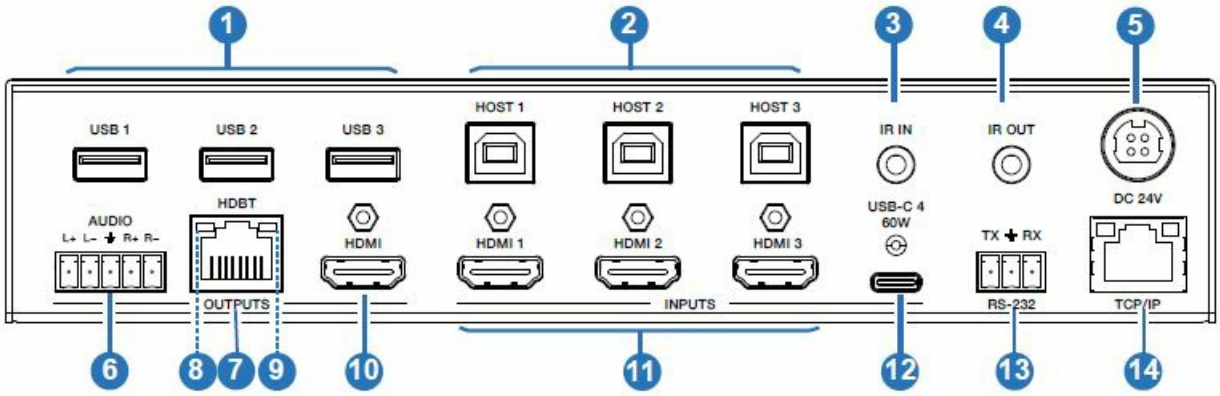
Front Panel



No.	Name	Function Description
1	IR Window	IR signal receiving window, receiving the IR remote signal.
2	HDMI OUT button & HDMI 1 / HDMI 2 / HDMI 3 / USB-C 4 LEDs	Press the HDMI OUT button to circularly select the HDMI 1 / HDMI 2 / HDMI 3 / USB-C 4 port as the signal input channel for HDMI output, the corresponding LE D will be on. The button light will automatically turn off after 1 second each time.

No.	Name	Function Description
3	HDBT OUT button & HDMI 1 / HDMI 2 / HDMI 3 / USB-C 4 LEDs	Press the HDBT OUT button to circularly select the HDMI 1 / HDMI 2 / HDMI 3 / USB-C 4 port as the signal input channel for HDBT output, the corresponding L ED will be on. The button light will automatically turn off after 1 second each time.
4	POWER button	Press and hold this button for 3 seconds, the product will enter standby mode and the button light will be on. In standby mode, short press this button, the prod uct will be turned on and the button light will be off.

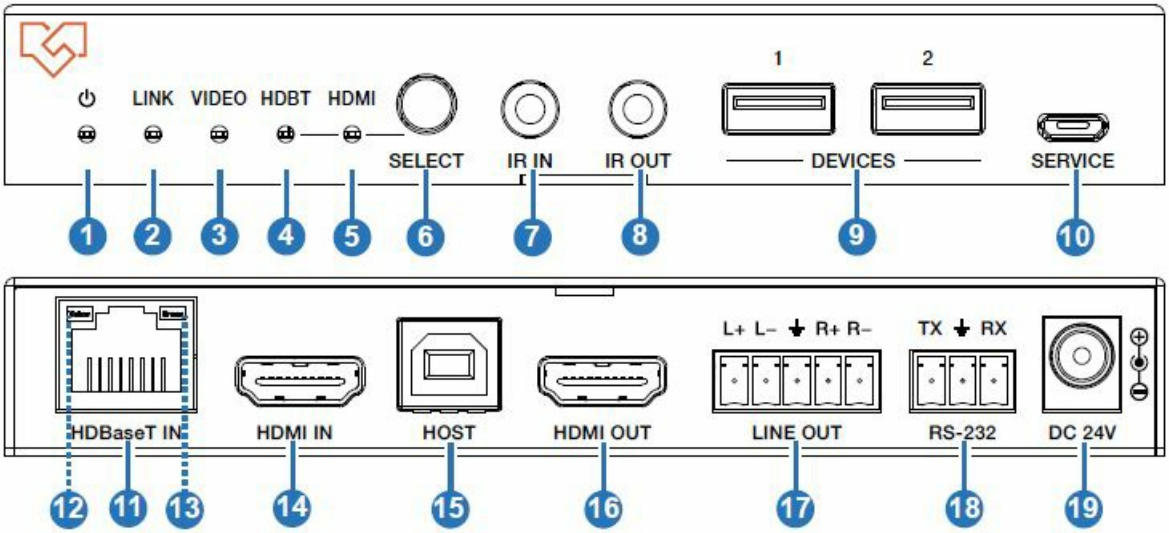
Rear Panel



No.	Name	Function Description
1	USB 1/2/3 port	Three USB extension ports, connected to mouse, keyboard, USB camera or other USB devices.
2	HOST 1/2/3 port	Three USB Host ports, connected to PC.
3	IR IN port	Connect the IR receiver cable, used for IR signal pass-through or controlling this product via the IR remote.
4	IR OUT port	Connect the IR blaster cable, the IR signal is from the IR IN port of the HDBaseT Receiver.
5	DC 24V port	Power port, connected to the DC 24V power adapter.
6	AUDIO OUTPUT port	Analog audio output port, supporting balanced audio input (with a maximum support of 2Vrms) and unbalanced audio input (with a maximum support of 1Vrms). Balanced connection method: L+, L -, , R+, R- Unbalanced connection method: L+, , R+ **Note:** This port is used to output the de-embedding audio from the HDBT OUTPUT port, and it supports volume adjustment through Web GUI or API command.
7	HDBT OUTPUT port	HDBaseT output port, connected to the HDBaseT IN port of the receiver with a CAT6A (F/FTP) cable.
8	Data Signal Indicator (Yellow)	▪ Light on: HDMI signal input with HDCP. ▪ Light flashing: HDMI signal input without HDCP. ▪ Light off: No HDMI signal input.

No.	Name	Function Description
9	Link Signal Indicator (Green)	▪ Light on: Transmitter and Receiver are in good connection status. ▪ Light flashing: Transmitter and Receiver are in poor connection status. ▪ Light off: Transmitter and Receiver are not connected.
10	HDMI OUTPUT port	HDMI signal output port, connected to HDMI display device such as TV or monitor with HDMI cable.
11	HDMI 1/2/3 INPUT ports	HDMI signal input ports, connected to HDMI source device such as DVD or Blu-ray player with HDMI cable.
12	USB-C 4 port	USB-C signal input port, connected to USB-C signal source device, with the function of 60W charging.
13	RS-232 port	RS-232 serial port, used for RS-232 signal pass-through or controlling this product via RS-232 commands.
14	TCP/IP port	Connect to a router or Switch for USB-C Internet access or Web GUI control.

REMOTE PANEL



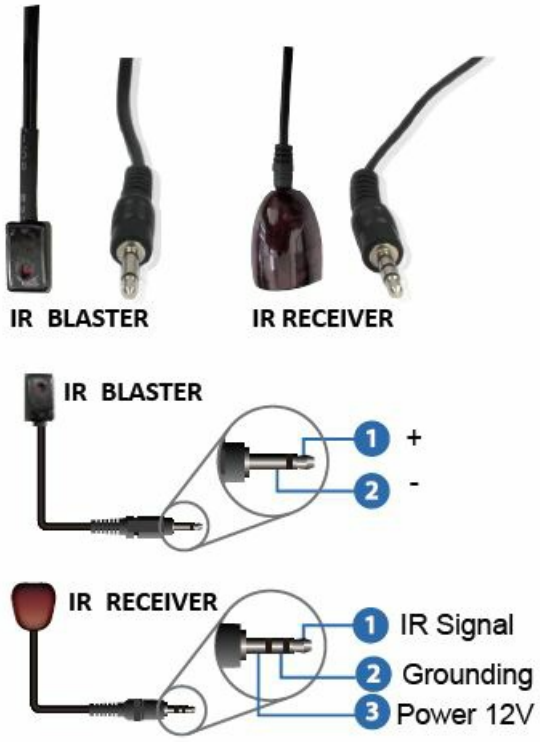
No.	Name	Function Description
1	Power LED	When the receiver is powered on, the red power LED will be on.
2	LINK LED	▪ Light on: Transmitter and Receiver are in good connection status. ▪ Light flashing: Transmitter and Receiver are in poor connection status. ▪ Light off: Transmitter and Receiver are not connected.
3	VIDEO LED	▪ Light on: HDMI signal input with HDCP. ▪ Light flashing: HDMI signal input without HDCP. ▪ Light off: No HDMI signal input.
4	HDBT LED	When the HDBaseT IN port is selected as the signal input channel, the green HDBT LED will be on.

No.	Name	Function Description
5	HDMI LED	When the HDMI IN port is selected as the signal input channel, the green HDMI LED will be on.
6	SELECT button	Press this button to select signal input channel.
7	IR IN port	Connect the IR receiver cable, the IR signal will be sent to the IR OUT port of the transmitter.
8	IR OUT port	Connect the IR blaster cable, the IR signal is from the IR IN port of the transmitter.
9	DEVICES ports	Two USB extension ports, connected to whiteboard, mouse, keyboard, USB camera or other USB devices.
10	SERVICE port	Firmware update port.
11	HDBaseT IN port	HDBaseT input port, connected to the HDBT OUTPUT port of the transmitter with a CAT6A (F/FTP) cable.
12	Data Signal Indicator (Yellow)	▪ Light on: HDMI signal input with HDCP. ▪ Light flashing: HDMI signal input without HDCP. ▪ Light off: No HDMI signal input.
13	Link Signal Indicator (Green)	▪ Light on: Transmitter and Receiver are in good connection status. ▪ Light flashing: Transmitter and Receiver are in poor connection status. ▪ Light off: Transmitter and Receiver are not connected.

14	HDMI IN port	HDMI signal input port, connected to HDMI source device such as DVD or Blu-ray player with HDMI cable.
15	HOST port	USB Host port, connected to PC.
16	HDMI OUT port	HDMI signal output port, connected to HDMI display device such as TV or monitor with HDMI cable.
17	LINE OUT port	Analog audio output port, supporting balanced audio output (with a maximum support of 2Vrms) and unbalanced audio output (with a maximum support of 1Vrms). Balanced connection method: L+, L -, , R+, R- Unbalanced connection method: L+, , R+
18	RS-232 port	RS-232 serial port, used for RS-232 signal pass-through or controlling this receiver via RS-232 commands.
19	DC 24V port	Power port, connected to the DC 24V power adapter. **Note:** The receiver also can be powered by PoE (through the HDBaseT IN port).

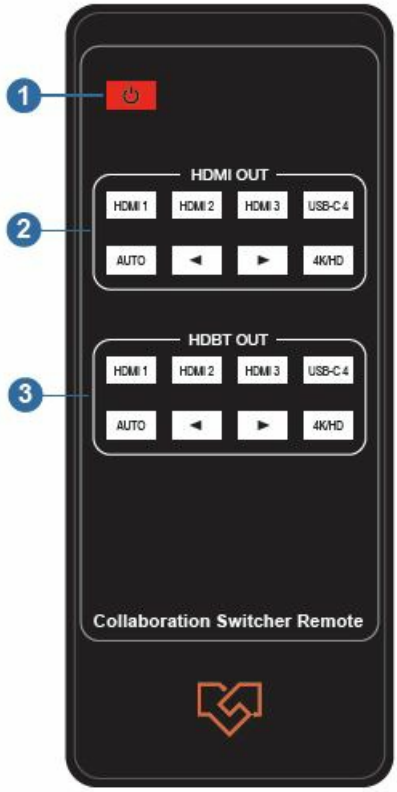
IR Cable Pin Assignment

The pin assignment of the IR Receiver cable and IR Blaster cable is as below:



Note: When the angle between the IR receiver and the remote control is ± 45 °, the transmission distance is 0-5 meters; when the angle between the IR receiver and the remote control is ± 90 °, the transmission distance is 0-8 meters.

IR Remote

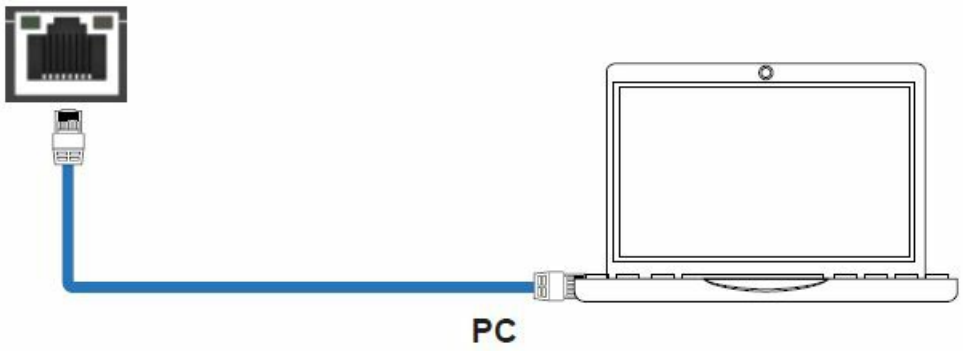


1. **Power button:** Press this button to power on the switcher or set it to standby mode.
2. **HDMI OUT control:** HDMI 1 / HDMI 2 / HDMI 3 / USB-C 4: Press these buttons to select input source for HDMI output, and the corresponding input LED on the front panel will be on.
   - ◄ ►: Press these buttons to circularly select the last or next input source for HDMI output.
   - **AUTO:** Press this button to enable/disable the auto switching function.
   - **4K/HD:** Press this button to set the output scaling mode (Auto/Bypass/ Force 1080p)
3. **HDBT OUT control:** HDMI 1 / HDMI 2 / HDMI 3 / USB-C 4: Press these buttons to select input source for HDBT output, and the corresponding input LED on the front panel will be on.
   - ◄ ►: Press these buttons to circularly select the last or next input source for HDBT output.
   - **AUTO:** Press this button to enable/disable the auto switching function.
   - **4K/HD:** Press this button to set the output scaling mode (Auto/Bypass/ Force 1080p)

Web GUI User Guide

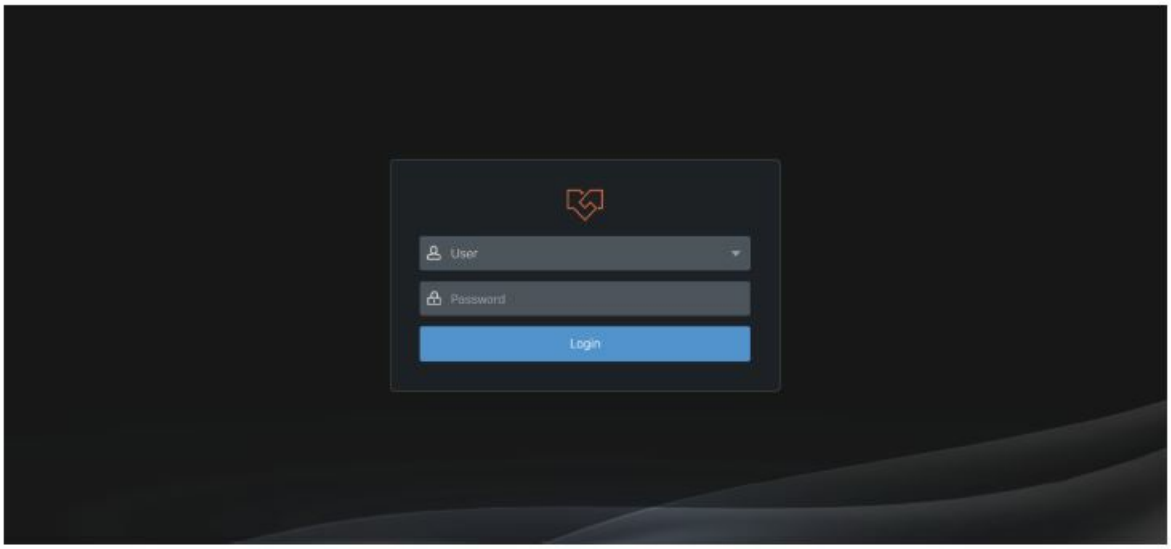
The collaboration switcher can be controlled by Web GUI. The operation method is shown as below:

- **Step 1:** Get the current IP Address. The default IP address is 192.168.0.100 (when the system is not connected to a router). Youcan get the current Collaboration switch IP address via RS-232 command control. Send the ASCII command “r ip addr” through a Serial Command tool, then you’ll get the current IP address (The IP address is variable, depending on what the specific machine returns). For the details of RS-232 control, please refer to “8. RS-232 Control Command”.
- **Step 2:** Connect the TCP/IP port of the collaboration switcher to a PC with an UTP cable (as shown in the following figure), and set the IP address of the PC to be in the same network segment with the collaboration switcher.



- **Step 3:** Input the current IP address of collaboration switcher into your browser on the PC to enter Web GUI interface.

After entering the Web GUI page, there will be a Login interface, as shown below:

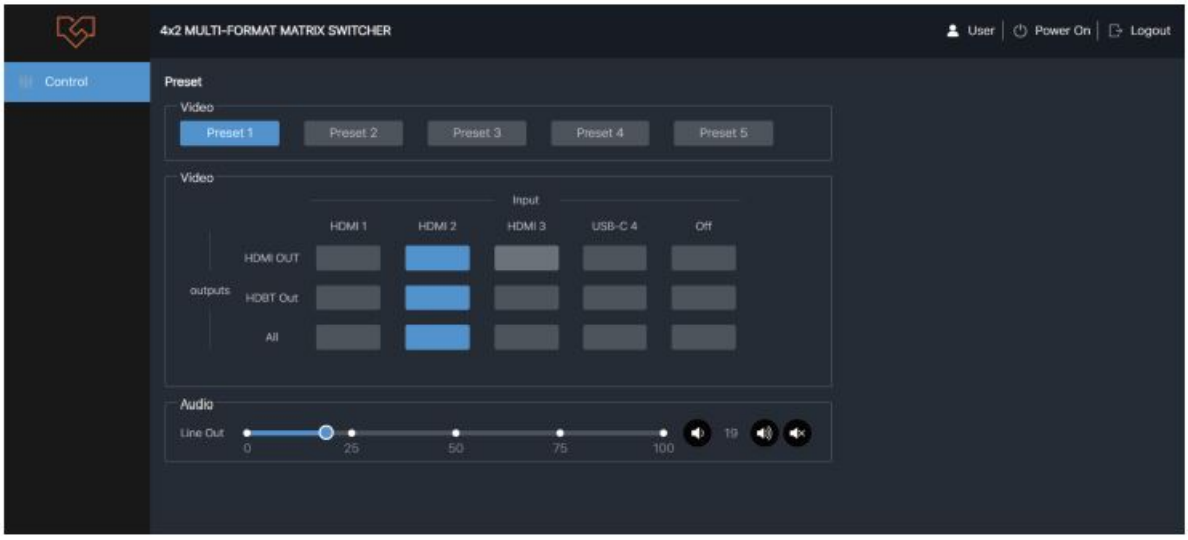


The default usernames and passwords are as below:

- Username User Admin
- Password 1234 1234

Select the username “User” and input the password “1234”, then click the “Login” button to enter the User page.

User Page

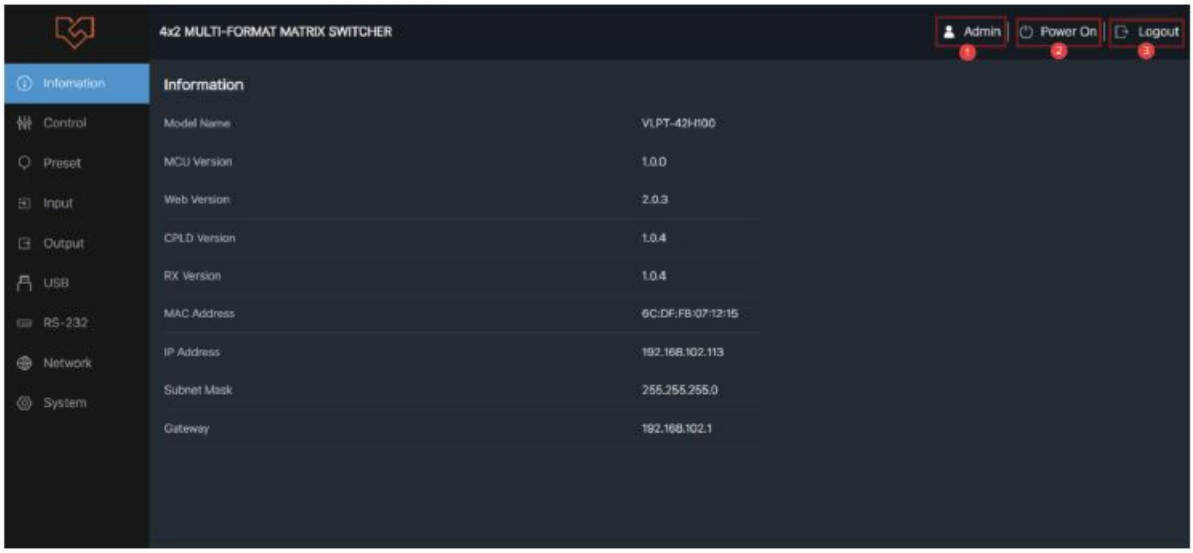


You can do the following operations on the User page:

1. **Preset:** Recall the preset application scenes. (Note: The preset name only displays 8 characters.)
2. **Video:** Select the input source for output to set the video switching.
3. **Audio:** Set the audio volume or mute/unmute the audio for Line Out, which is the de-embedding audio from HDBT output.

In the Login interface, select the username “Admin” and input the password “1234”, then click the “Login” button to enter the Information page of the Admin interface.

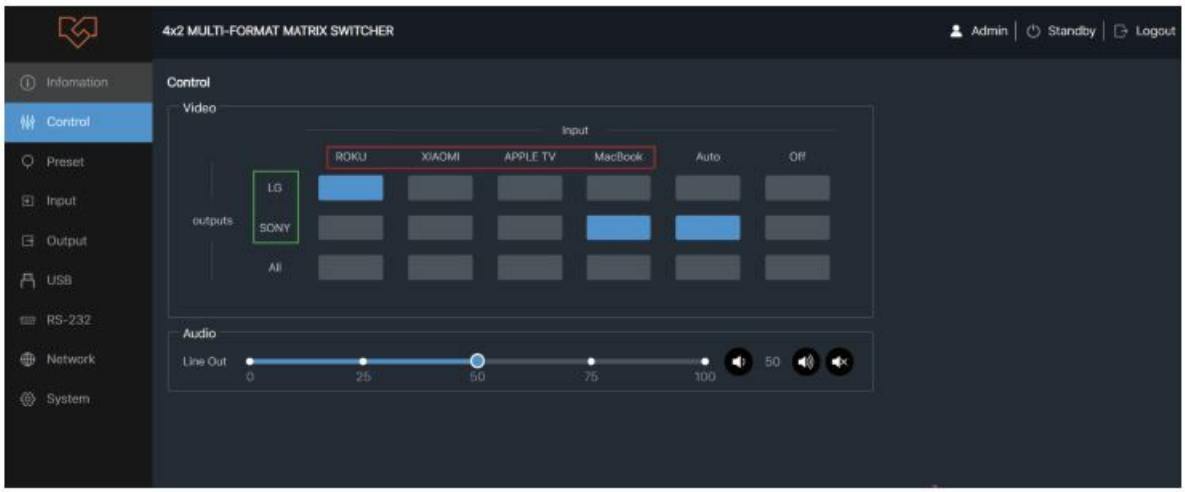
Information Page



The Information page provides basic information about the model name, software version and the network settings of the device. Besides, you can do the following operations on each page of the Admin interface.

1. Display the current username (User or Admin).
2. Click the power icon to power on the swithcher or set it in standby mode.
3. Click the logout icon to logout and return to the login interface.

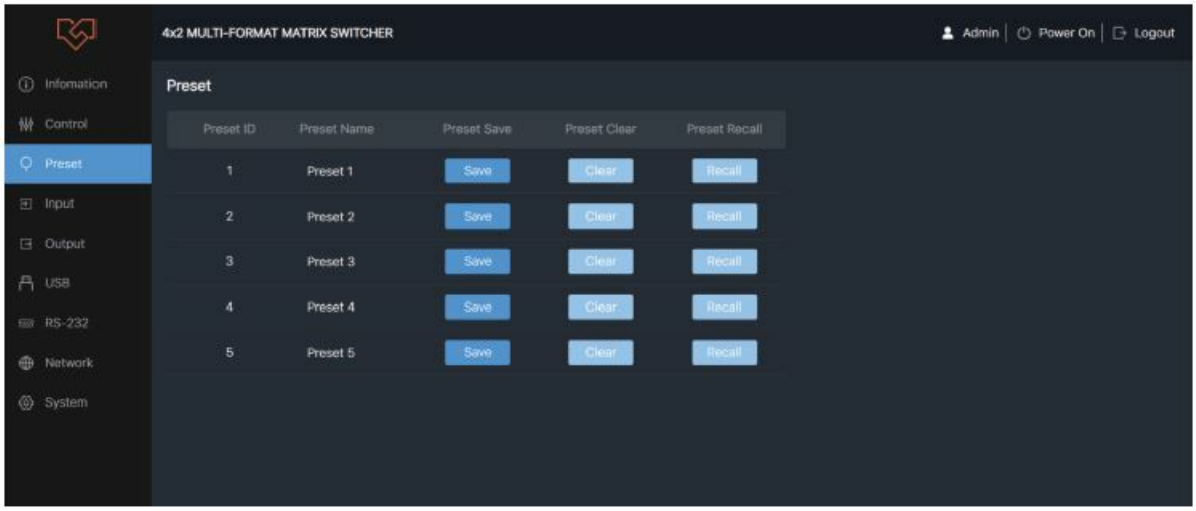
Control Page



You can do the following operations on the User page:

1. **Video:** Select the input source for the output to adjust the video matrix switching.
    - **Note:** The name of the input source/output device can be modified in the Input/Output page.
2. **Audio:** Set the audio volume or mute/unmute the audio for TX Line Out, which is the de-embedding audio from HDBT output.

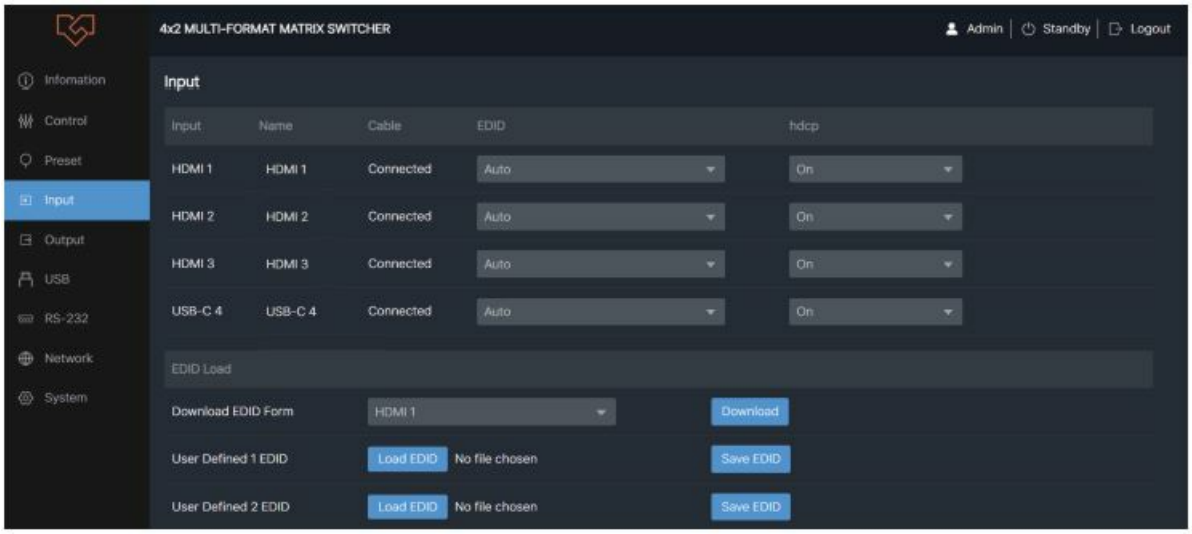
Preset Page



You can set up to 5 preset scenes on the Preset page.

1. **Preset Name:** You can name the preset scene with a maximum of 16 characters. (Chinese name is not supported.)
2. **Preset Save:** Click the Save button to save the scene.
3. **Preset Clear:** Click the Clear button to clear the saved scene.
4. **Preset Recall:** Click the Recall button to recall the saved scene.

Input Page



You can do the following operations on the Input page.
Input Setting

1. **Name:** The name of the input port. You can name it with a maximum of 8 characters.
2. **Cable:** It indicates the connection status of the input port.
3. **EDID:** Click the drop-down list to set EDID for each input port. The EDID list is as below.

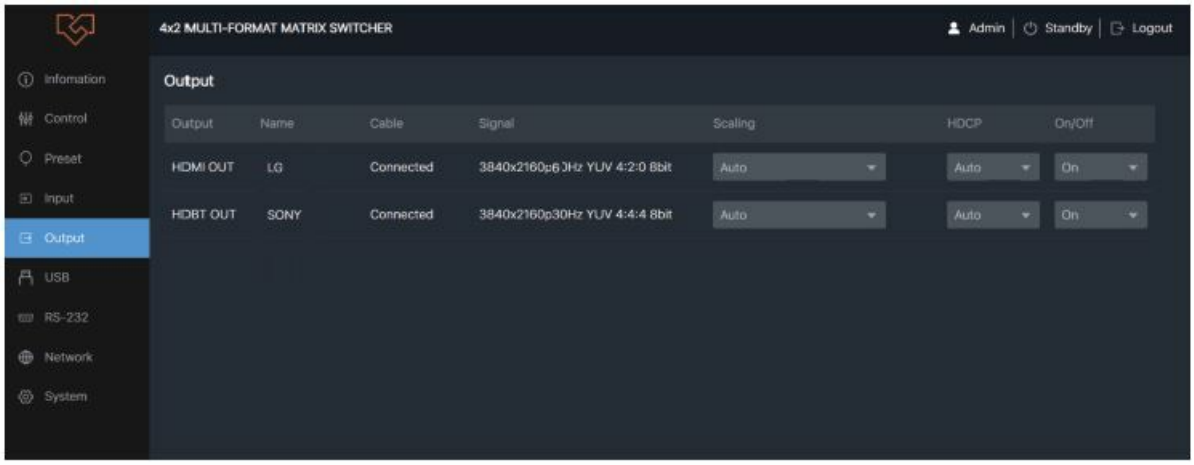
No.	EDID Mode	No.	EDID Mode
1	Auto	9	1680×1050, Stereo Audio 2.0
2	Copy HDMI OUT	10	1600×1200, Stereo Audio 2.0
3	Copy HDBT OUT	11	1440×900, Stereo Audio 2.0
4	4K2K60_444, Stereo Audio 2.0	12	1360×768, Stereo Audio 2.0
5	4K2K30_444, Stereo Audio 2.0	13	1280×1024, Stereo Audio 2.0
6	1080P, Stereo Audio 2.0	14	1024×768, Stereo Audio 2.0
7	720P, Stereo Audio 2.0	15	User Defined 1
8	1920×1200, Stereo Audio 2.0	16	User Defined 2

1. ④ hdcp: Click the drop-down list to set HDCP.

EDID Load

1. Click the drop-down list to select HDMI 1\HDMI 2\HDMI 3\USB-C 4\HDMI OUT\HDBT OUT for EDID download.
2. Click the Download button to download EDID and generate a .bin file.
3. Click the Load EDID button to download user-defined EDID. Please note that only. bin files are supported.
4. Click the Save EDID button to save the user-defined EDID.

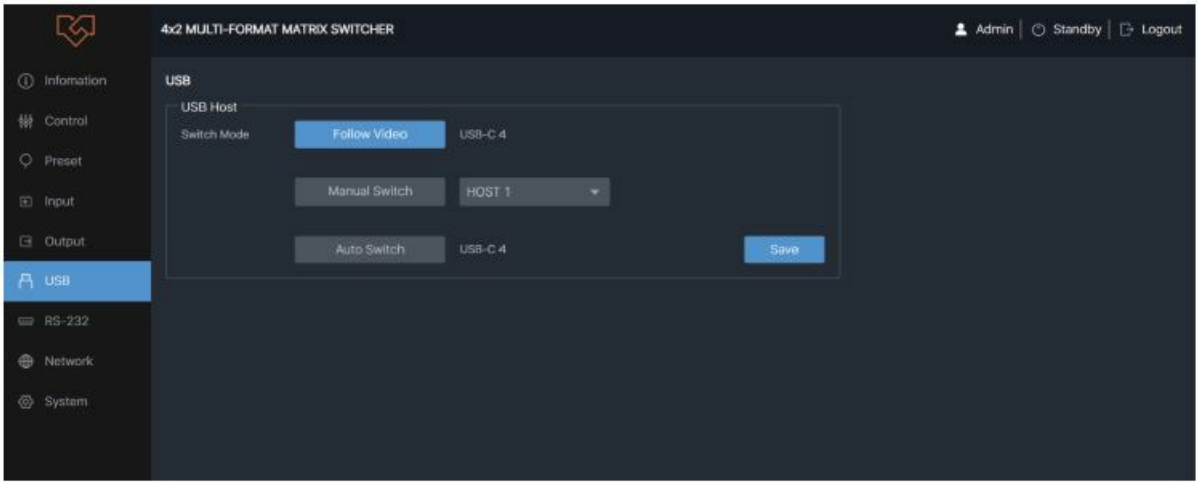
Output Page



You can do the following operations on the Output page:

1. **Name:** The name of the output port. You can name it with a maximum of 8 characters.
2. **Cable:** It indicates the connection status of the output port.
3. **Signal:** The video information of the output signal.
4. **Scaling:** Set the video output mode (Auto/Bypass/Force 1080p).
5. **HDCP:** Set the HDCP output (Auto/HDCP1.4/HDCP2.2).
6. **On/Off:** Turn on/off the video output.

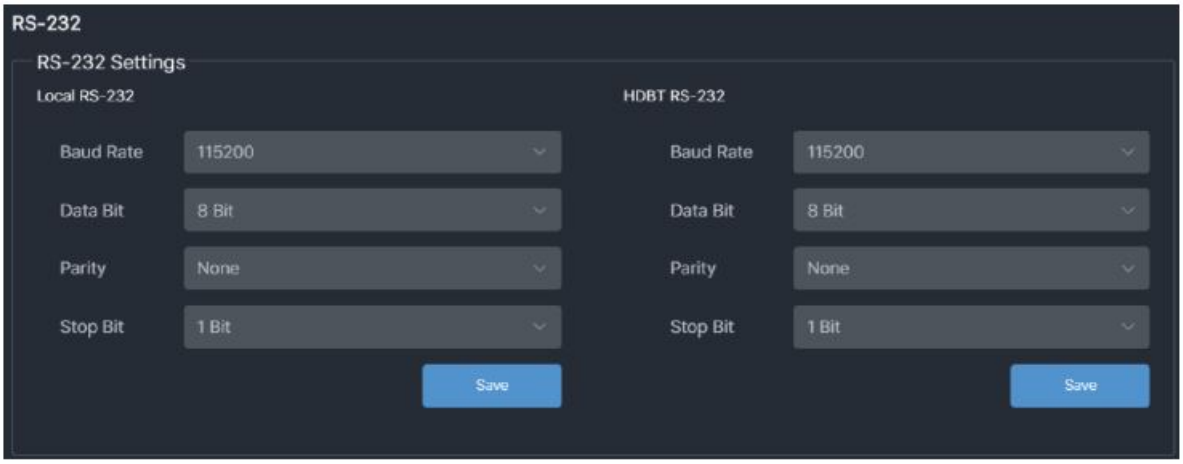
USB Page

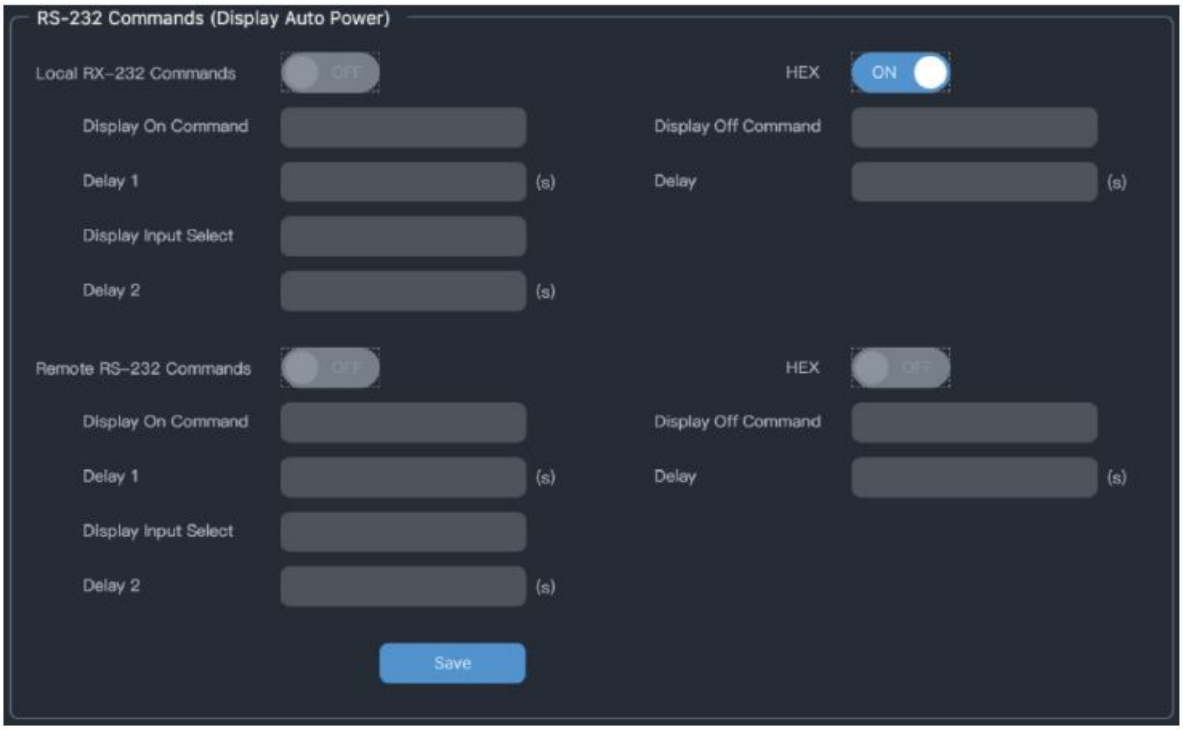


USB Host Switch Mode

1. **Follow Video:** Click this button to set the USB transmission follow the video switch (follow the HDBT output).
2. **Manual Switch:** Switch to HOST 1\ HOST 2\ HOST 3\USB-C 4 manually.
3. **Auto Switch:** Detect and switch to HOST 1\ HOST 2\ HOST 3\USB-C 4 automatically. After setting up, click “Save” to take effect.

RS-232 Page





RS-232 Settings

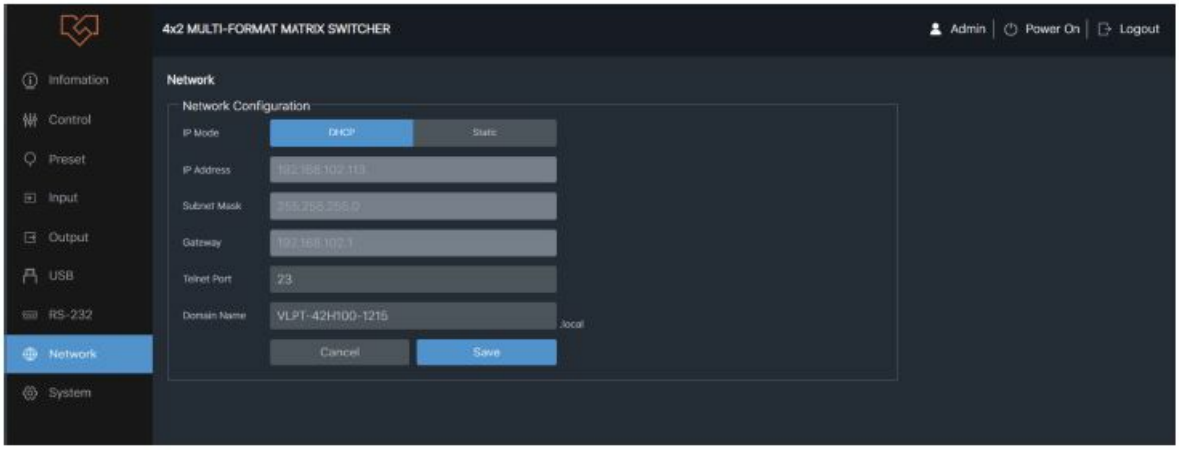
1. Local RS-232: You can set the Baud Rate, Data Bit, Parity and Stop Bit for the RS-232 port of the transmitter.
2. HDBT(Remote) RS-232: You can set the Baud Rate, Data Bit, Parity and Stop Bit for the

RS-232 port of the receiver.
RS-232 Commands (Display Auto Power)

1. **Local/Remote RS-232 Commands:** You can turn on/off the local/remote RS-232 commands and hex.
2. **Display On/Off Command:** You can input the display on/off command of the device.
3. **Delay 1:** You can set the delay time for the next action (such as send the Display Input Select command).
4. **Display Input Select:** You can input the command of switching the input channel for the display device.
5. **Delay 2:** You can set the delay time for the next action after sending the Display Input Select command.

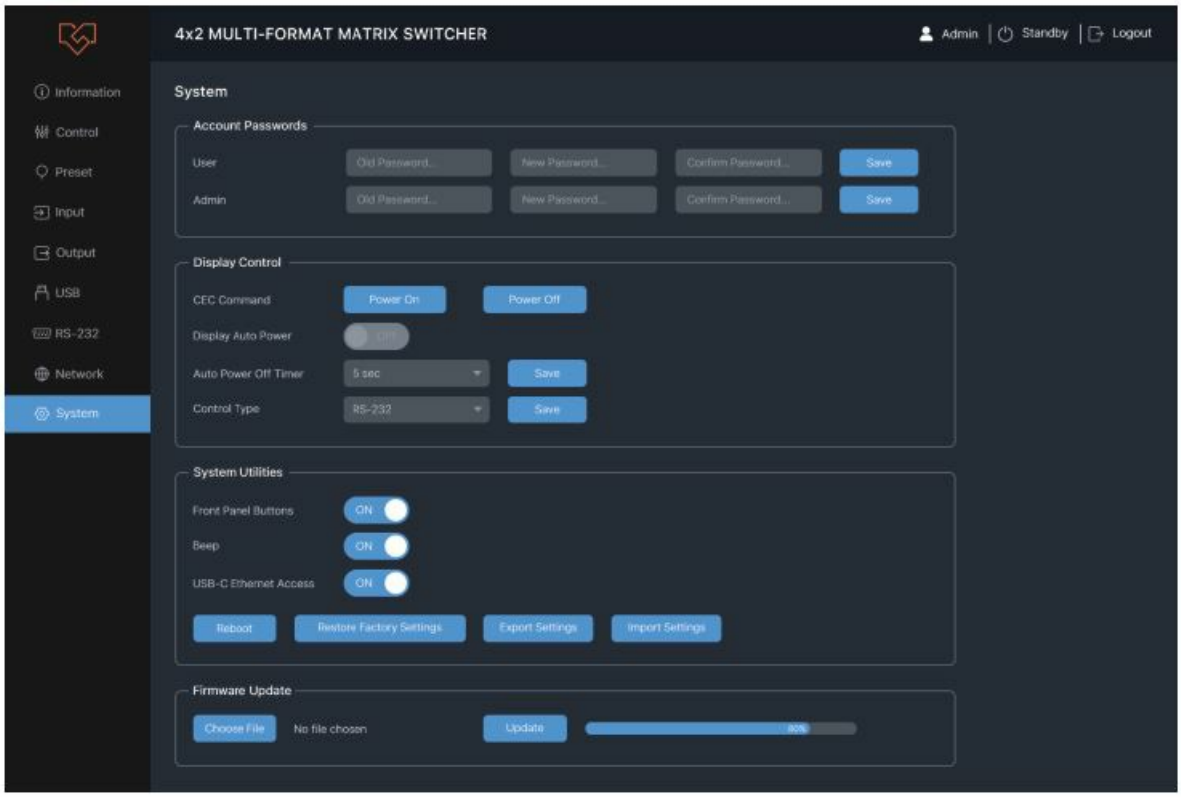
After setting up, click “Save” to take effect.

Network Page



Network Configuration: You can set the IP Mode (DHCP/Static), IP Address, Subnet Mask. Gateway, Telnet Port and Domain Name.
Note: The Domain Name “VLPT-42H100-1215.local” can be used to login the Web GUI. After setting up, click “Save” to take effect. Or you can click “Cancel” to cancel the setting.

System Page



Account Passwords: You can modify the login password for User and Admin. After setting up, click “Save” to take effect.
Display Control

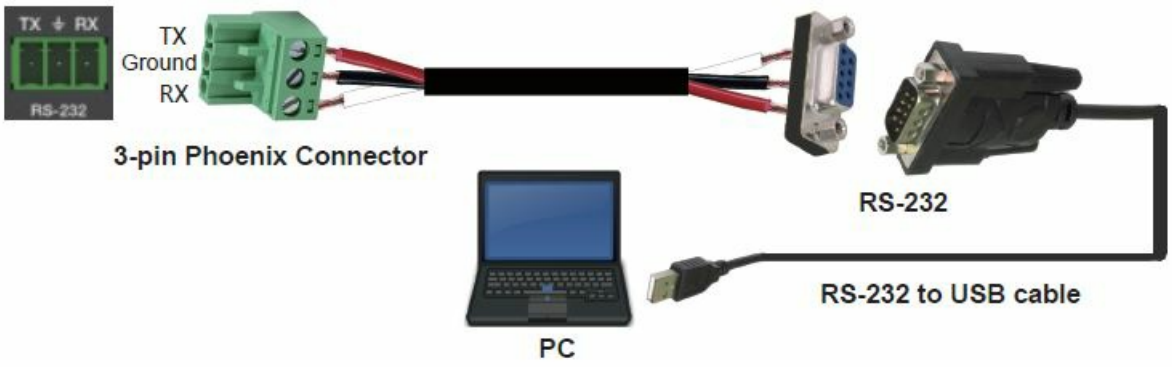
1. **CEC Command:** You can power on/off the CEC command.
2. **Display Auto Power:** You can turn on/off the Display Auto Power. When it is set to ON, you can control the display device power on/off or switch the port based on the power status (power on/standby) or the signal input status of the transmitter by sending serial port or CEC Power On/Off command.
3. **Auto Power off Timer:** Click the drop-down list to select the delay time for sending the command to turn off the display device when the transmitter is in standby mode or there is no signal input.
4. **Control Type:** Click the drop-down list to select the control type.

System Utilities

1. **Front Panel Buttons:** Click “ON/OFF” to lock/unlock panel buttons. “On” indicates that panel buttons are available; “OFF” indicates panel buttons are unavailable.
2. **Beep:** Click “ON/OFF” to turn on/off the beep.
3. **USB-C Ethernet Access:** Click “ON/OFF” to turn on/off the Ethernet access function of USB-C.
4. **Reboot:** Click “Reboot” to reboot the switcher.
5. **Restore Factory Settings:** Click this button to restore the switcher to factory settings.
6. **Export Settings:** Click this button to export configuration files.
7. **Import Settings:** Click this button to import configuration files.
8. **Firmware Update:** You can update the software of MCU, Web, CPLD or receiver. Click “Choose File” to select the update file, then click “Update” to start update. When the progress bar reaches 100%, the update is complete.

RS-232 Control Command

The product also supports RS-232 command control. Connect the RS-232 port of the product to a PC with a 3-pin phoenix connector cable and an RS-232 to USB cable. The connection method is as follows.



Then open a Serial Command tool on PC to send ASCII commands to control the product. The ASCII command list about the product is shown as below.

ASCII Command				
Serial port protocol: Baud rate: 115200 (default), Data bits: 8bit, Stop bits:1, Parity bit: none TCP/IP protocol port: 8000				
x – Parameter 1,	y – Parameter 2			
Command Code	**Function Description**	**Example**	**Feedback**	**Default Setting**
System Setting				

?	Get the list of all commands	?	========== ========== VLPT-42H100 Help Info MCU 1.1.0 Web 1.1.0 FPGA 1.1.0 RX 1.1.0 ========== System Setting Command ? Get the list of all commands help Get the list of all commands r type Get device model …… ========== ==========	List all API commands.

help	Get the list of all commands	help	========== ========== VLPT-D6 Help Info MCU 1.1.0 Web 1.1.0 FPGA 1.1.0 RX 1.1.0 ========== System C6 Command ? Get the list of all commands help Get the list of all commands r type Get device model ……. ========== ==========	List all API commands.
r type	Get device model	r type	VLPT-42H100	
r status	Get device current status	r status		List current status. Please see Status Feedback sheet
r fw version	Get Firmware version	r fw version	MCU 1.1.0 Web 1.1.0 FPGA 1.1.0 RX 1.1.0	

s power on	Power on the device	s power on	Power on System Initializing… Initialization Finished! MCU 1.1.0 Web 1.1.0 FPGA 1.1.0 RX 1.1.0	
s power off	Power off the device	s power off	Power off	
r power	Get current power state	r power	power on /power off	
s reboot	Reboot the device	s reboot	Reboot… System Initializing… Initialization Finished! MCU 1.1.0 Web 1.1.0 FPGA 1.1.0 RX 1.1.0	
s reset	Reset system settings to default (Should type “Yes” to confirm, “No” to discard)	s reset	Sure to Reset System Settings To Default? Type “Yes” after next prompt to confirm…	
s reset all	Reset system and network settings to default (Should type “Yes” to confirm, “No” to discard)	s reset all	Sure to Reset System and Network Settings To Default? Type “Yes” after next prompt to confirm…	

Command Code	**Function Description**	**Example**	**Feedback**	**Default Setting**
s front button on/off	Set front button on/off	s front button on	Set front button on	on
r front button	Get front button on/off status	r front button	Front button on	
s beep on/off	Set buzzer on/off	s beep on	Set beep on	off
r beep	Get buzzer on/off status	r beep	Beep on	
s USBC access network on/off	Set USB-C access network feature on/off	s USBC access network on	Set USB-C access network feature on	on

r USBC access network	Get USB-C access network feature on/off status	r USBC access network	USB-C access network feature on	
Input Setting				
s input x EDID y	Set input EDID (x=0~4) (y=1~16) x=0: all inputs x=1: HDMI 1 x=2: HDMI 2 x=3: HDMI 3 x=4: USB-C 4 y=1: Auto (HDBT or HDMI or HDBT+HDMI) y=2: Copy HDMI OUT y=3: Copy HDBT OUT y=4: 4K2K60_444, Stereo Audio 2.0 y=5: 4K2K30_444, Stereo Audio 2.0 y=6: 1080P, Stereo Audio 2.0 y=7: 720p, Stereo Audio 2.0 y=8: 1920×1200, Stereo Audio 2.0 y=9: 1680×1050, Stereo Audio 2.0 y=10: 1600×1200, Stereo Audio 2.0 y=11: 1440×900, Stereo Audio 2.0 y=12: 1360×768, Stereo Audio 2.0 y=13: 1280×1024, Stereo Audio 2.0 y=14: 1024×768, Stereo Audio 2.0 y=15: User Defined 1 y=16: User Defined 2	s input 0 EDID 1	Set all input EDID: Auto	1

r input x EDID	Get input EDID mode (x=0~4) x=0: all inputs x=1: HDMI 1 x=2: HDMI 2 x=3: HDMI 3 x=4: USB-C 4	r input 0 EDID	Input HDMI 1(Name) EDID: Auto Input HDMI 2(Name) EDID: Auto Input HDMI 3(Name) EDID: Auto Input USB-C 4(Name) EDID: Auto	
r input x EdidData	Get input EDID Data (x=0~4) x=0: all inputs x=1: HDMI 1 x=2: HDMI 2 x=3: HDMI 3 x=4: USB-C 4	r input 0 EdidData	Input HDMI 1(Name) EDID Data: <00 FF FF FF….> Input HDMI 2(Name) EDID Data: <00 FF FF FF….> Input HDMI 3(Name) EDID Data: <00 FF FF FF….> Input USB-C 4(Name) EDID Data: <00 FF FF FF….>	

Command Code	**Function Description**	**Example**	**Feedback**	**Default Setting**
s input x HDCP on/off	Set input HDCP (x=0-4) on/off x=0: all inputs x=1: HDMI 1 x=2: HDMI 2 x=3: HDMI 3 x=4: USB-C 4	s input 0 HDCP on	Set all input HDCP: On	on
r input x HDCP	Get input HDCP (x=0-4) on/off status	r input 0 HDCP	Input HDMI 1(Name) HDCP: On Input HDMI 2(Name) HDCP: On Input HDMI 3(Name) HDCP: On Input USB-C 4(Name) HDCP: On	

Output Setting				
s output x from y	Set output (x=0-2) from input (y=0-4) x=0: all outputs (HDMI/HDBT), x=1: HDMI output x=2: HDBT output y=0: Off y=1: HDMI 1 y=2: HDMI 2 y=3: HDMI 3 y=4: USB-C 4	s output 0 from 1	Set HDMI(Name) output from: HDMI 1(Name) Set HDBT(Name) output from: HDMI 1(Name)	1
r output x from	Get output (x=0-2) from which input x=0: all outputs (HDMI/HDBT), x=1: HDMI output x=2: HDBT output	r output 0 from	HDMI(Name) output from: HDMI 1(Name) HDBT(Name) output from: HDMI 1(Name)	
s output x scaling y	Set output (x=0-2) scaling (y= 1-3) x=0: all outputs (HDMI/HDBT) x=1: HDMI output x=2: HDBT output y=1: Auto y=2: Bypass y=3: Force 1080p	s output 0 scaling 1	Set HDMI(Name) output scaling: Auto Set HDBT(Name) output scaling: Auto	1
r output x scaling	Get output scaling status	r output 0 scaling	HDMI(Name) output scaling: Auto HDBT(Name) output scaling: Auto	
s output x hdcp y	Set output (x=0~2) hdcp (x=1~3) x=0: all outputs (HDMI/HDBT) x=1: HDMI output x=2: HDBT output y=1: Auto y=2: HDCP 1.4 y=3: HDCP 2.2	s output 0 hdcp 1	Set HDMI(Name) output HDCP: Auto Set HDBT(Name) output HDCP: Auto	1
r output x hdcp	Get output (x=0~2) hdcp status x=0: all outputs (HDMI/HDBT) x=1: HDMI output x=2: HDBT output	r output 0 hdcp	HDMI(Name) output HDCP: Auto HDBT(Name) output HDCP: Auto	

s output x avmute on/off	Set output (x=0-2) avmute on/off x=0: all outputs (HDMI/HDBT), x=1: HDMI output x=2: HDBT output	s output 0 avmute on	Set HDMI(Name) output AVMUTE: On Set HDBT(Name) output AVMUTE: On	off
r output x avmute	Get output (x=0-2) avmute on/off status	r output 0 avmute	HDMI(Name) output AVMUTE: On HDBT(Name) output AVMUTE: On	

Command Code	**Function Description**	**Example**	**Feedback**	**Default Setting**
s output x auto switch mode y	Set output (x=0-2) auto switch detection mode (y=1-2) x=0: all outputs (HDMI/HDBT) x=1: HDMI output x=2: HDBT output y=1: TMDS y=2: 5V	s output 0 auto switch mode 1	Set HDMI(Name) output auto switch mode: TMDS	1
r output x auto switch mode	Get output (x=0-2) auto switch detection mode	r output 0 auto switch mode	HDMI(Name) output auto switch mode: TMDS	
s output x auto switch on/off	Set output (x=0-2) auto switch on/off x=0: all outputs (HDMI/HDBT), x=1: HDMI output, x=2: HDBT output	s output 0 auto switch on	Set HDMI(Name) output auto switch: On	off
r output x auto switch	Get output (x=0-2) auto switch on/off status	r output 0 auto switch	HDMI(Name) output auto switch: On	
Audio Setting				
s output line vol y	Set output line volume to y y=[0-100] volume value	s output line vol 50	Set output line volume: 50	50
r output line vol	Get output line volume	r output line vol	Output line volume: 50	
s output line vol+	Increase output line volume	s output line vol+	Increase output line volume: 52	
s output line vol-	Decrease output line volume	s output line vol-	Decrease output line volume: 50	

s output x mute on/off	Set output (x=null/line/HDMI/ HDBT) mute on/off	s output mute on s output line mut e on s output HDMI m ute on s output HDBT mute on	Set output all mute: On Set output line mute: On Set output HDMI(N ame) mute: On Set output HDBT(Nam e) mute: On0	off
r output x mute	Get output (x=null/line/HDMI/ HDBT) mute on/off status	r output mute r output line mut e r output HDMI m ute r output HDB T mute	Output all mute: On O utput line mute: On Ou tput HDMI(Name) mut e: On Output HDBT(Name) mute: On	
RX Setting				
s rx output from x	Set RX output from input (x=1-2) x=1:HDBT IN x=2:HDMI IN	s rx output from 1	Set RX output from: H DBT IN Error, RX not ready!	1
r rx output from	Get RX output from which input	r rx output from	RX output from: HDBT IN	
r rx hdmi5v	Get RX HDMI input power 5V	r rx hdmi5v	RX HDMI 5V: 1	
r rx host5v	Get RX USB host power 5V	r rx host5v	RX host 5V: 1	
s rx auto switch mode x	Set RX auto switch detection mode (x=1~2) x=1: TMDS x=2: 5V	s rx auto switch mode 1	Set RX auto switch mo de: TMDS	1
r rx auto switch mode	Get RX auto switch detection mode	r rx auto switch mode	RX auto switch mode: TMDS	
s rx auto switch on/off	Set RX auto switch on/off	s rx auto switch on	Set RX auto switch: O n	on
r rx auto switch	Get RX auto switch on/off stat us	r rx auto switch	RX auto switch: On	

Command Cod e	**Function Description**	**Example**	**Feedback**	**Default Settin g**
CEC Setting				

s cec power on/off	Set CEC power on/off command	s cec power on s cec power off	Set CEC power on Set CEC power off	
s auto power feature on/off	Set display auto power feature on/off	s auto power feature off	Set auto power feature : Off	off
r auto power feature	Get display auto power feature on/off status	r auto power feature	Auto power feature: Off	
s auto power off timer x	Set auto power off command (CEC/RS-232) will be sent out after x x=1: 5sec, x=2: 10sec, x=3: 30 sec, x=4: 1min, x=5: 5min, x=6: 10min	s auto power off timer 4	Set auto power off timer: 1min	4
r auto power off timer	Get auto power off timer	r auto power off timer	Auto power off timer: 1 min	
s auto power control x	Set auto power feature control via (x=1-3) x=1: CEC, x=2: RS-232, x=3: CEC and RS-232	s auto power control 1	Set auto power control : CEC	1
r auto power control	Get auto power feature control type	r auto power control	Auto power control: CEC	
USB Setting				
s USB switch mode x	Set USB switch mode (x=1-3) x=1: Follow video (HDMI 1/ Host 1, HDMI 2/Host 2, HDMI 3/Host 3, USB-C 4) x=2: Manual mode x=3: Auto mode (detect host 5 V then switch)	s USB switch mode 1	Set USB switch mode: Follow video	1
r USB switch mode	Get USB switch mode	r USB switch mode	USB switch mode: Follow video	
s USB from x	Set USB manual switch from input (x=0-4) x=0: None, x=1: Host 1, x=2: Host 2, x=3: Host 3, x=4: USB-C 4	s USB from 1	Set USB from: Host 1	1
r USB from	Get USB manual switch from which input	r USB from	USB from: Host 1	

RS-232 Setting				
s serial x setting y	Set serial port (x=0-2) setting t o y x=0: All RS-232 (Local and HDBT) x=1: Local RS-232 x=2: HDBT RS-232 y= 115200 -8n1	s serial 0 setting 115200-8n1	Set all RS-232: 115200-8n1	115200-8n1
r serial x setting	Get serial port (x=0-2) setting x=0: All RS-232 (Local and H DBT) x=1: Local RS-232 x=2: HDBT RS-232	r serial 0 setting	All RS-232: 115200-8n 1	
Preset Setting				
s preset save x	Save the current unit's settings to the specified preset :x All settings except network set ting. x=[1-5]: Preset 1 – Preset 5	s preset save 1	Save to preset 1	
s preset recall x	Recall a specified preset:x into unit All settings except network set ting. x=[1-5]: Preset 1 – Preset 5	s preset recall 1	Recall preset 1	

Command Cod e	**Function Description**	**Example**	**Feedback**	**Default Settin g**
s preset clear x	Clear a specified preset:x All settings except network set ting. x=[1-5]: Preset 1 – Preset 5	s preset clear 1	Clear preset 1	
s preset x name y	Set preset:x name to y x=[1-5] : Preset 1 – Preset 5 y: Preset name, max 16 characters	s preset 1 name MeetingRoom 1	Set preset 1 name: Me etingRoom 1	
r preset x name	Get preset:x name x=[1-5]: Preset 1 – Preset 5	r preset 1 name	Preset 1 name: MeetingRoom 1	
Network Setting				

r ipconfig	Get the Current IP Configuration	r ipconfig	IP Mode:DHCP IP Address:192.168.0.100 Subnet Mask:255.255.0.0 Gateway:192.168.0.1 TCP/IP port:8000 MAC:6C:DF:FB:0C:B3:8E	
r mac addr	Get network MAC address	r mac addr	MAC: 6C:DF:FB:0C:B3:8E	
s ip mode x	Set network IP mode to x=0: Static, x=1: DHCP	s ip mode 0	Set IP mode: Static (Please use “s net reboot ” command or repower device to apply new config!)	1
r ip mode	Get network IP mode	r ip mode	IP mode: Static	
s ip addr xxx.xxx. xxx.xxx	Set network IP address	s ip addr 192.168.1.100	Set IP address: 192.168.0.100 (Please use “s net reboot” command or repower device to apply new config!) DHCP on, Device can’t config static address, set DHCP off first.	
r ip addr	Get network IP address	r ip addr	IP: 192.168.0.100	
s subnet xxx.xxx.xxx.xxx	Set network subnet mask	s subnet 255.255.255.0	Set Subnet Mask: 255.255.255.0 (Please use “s net reboot!” command or repower device to apply new config!) DHCP on, Device can’t config subnet mask, set DHCP off first.	
r subnet	Get network subnet mask	r subnet	Subnet Mask: 255.255.255.0	

s gateway xxx.xxx.xxx.xxx	Set network gateway	s gateway 192.168.1.1	Set Gateway: 192.168.1.1 (Please use “s net reboot!” command or repower device to apply new config!) DHCP on, Device can’t config gateway, set DHCP off first.	
r gateway	Get network gateway	r gateway	Gateway: 192.168.1.1	
s tcp/ip port x	Set network TCP/IP port (x=1~65535)	s tcp/ip port 8000	Set TCP/IP port: 8000	8000
r tcp/ip port	Get network TCP/IP port	r tcp/ip port	TCP/IP port: 8000	

Command Code	**Function Description**	**Example**	**Feedback**	**Default Setting**
s telnet port x	Set network telnet port (x=1~65535)	s telnet port 23	Set Telnet port: 23	23
r telnet port	Get network telnet port	r telnet port	Telnet port: 23	
s net reboot	Reboot network modules	s net reboot	Searching IP, please wait … IP Mode: DHCP IP Address:192.168.0.100 Subnet Mask:255.255.0.0 Gateway: 192.168.0.1 TCP/IP port: 8000 MAC:6C:DF:FB:0C:B3:8E	
Password Setting				
s admin password x	Set admin login password (x=[16 characters max])	s admin password 1234	admin password: 1234	1234
r admin password	Get admin login password	r admin password	admin password: 1234	
s user password x	Set user login password (x=[16 characters max])	s user password 1234	user password: 1234	1234
r user password	Get user login password	r user password	user password: 1234	

Note: The feedback of the command of “r status” is as following.

VLPT-42H100 Status
MCU 1.1.0 Web 1.1.0 FPGA 1.1.0 RX 1.1.0

Input	Name	Cable	EDID	HDCP
HDMI 1	HDMI 1	Connected	Auto	On
HDMI 2	HDMI 2	Connected	Auto	On
HDMI 3	HDMI 3	Connected	Auto	On
USB-C 4	USB-C 4	Connected	Auto	On

Output	Name	Source	Cable	Signal
HDMI OUT	HDMI OUT	HDMI 1	Connected	3840x2160p60Hz YUV 4:2:2 12bit
HDBT OUT	HDBT OUT	HDMI 1	Connected	3840x2160p60Hz YUV 4:4:4 8bit

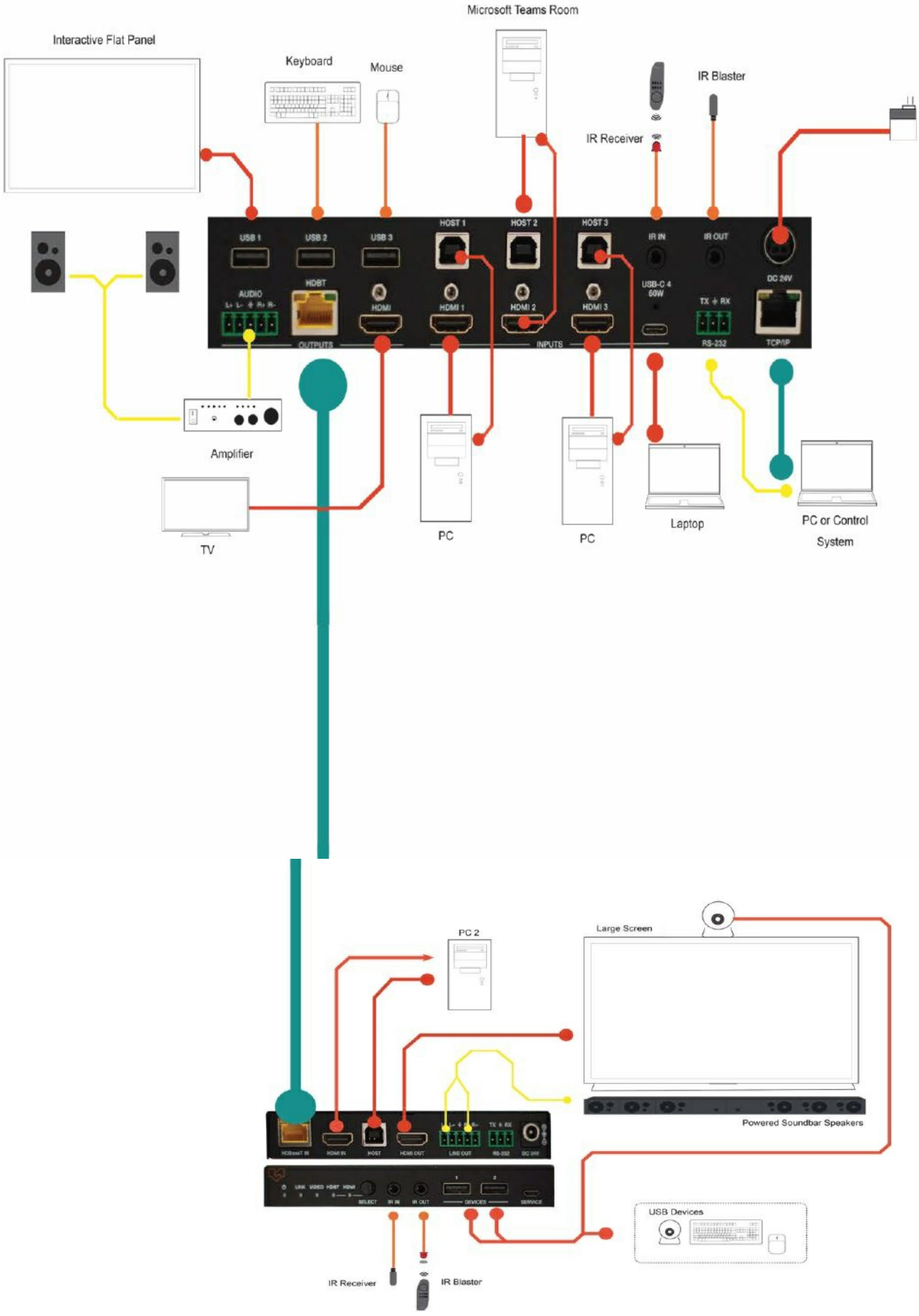
Output	On/Off	OutputScaling	AutoSwitch	HDCP
HDMI OUT	On	Auto	TMDS	On
HDBT OUT	On	Auto	Off	On

Power	Key	Beep	Baud
On	On	Off	115200

TCP/IP	Telnet	MAC
8000	0023	6C:DF:FB:0C:B3:8E

DHCP	IP	Gateway	SubnetMask
On	192.168.062.111	192.168.062.001	255.255.000.000
(Static:	192.168.000.100	192.168.000.001	255.255.000.000)

Connection Diagram

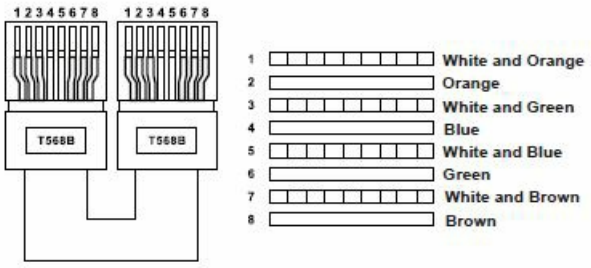


Thank you for purchasing this product

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, lighting strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

Caution
The product requires the use of UTP connectors. Please connect in direct interconnection method and do not cross connect.



Direct Interconnection Method

Documents / Resources

	VigilLink VLPT-42H100 Multi Format Collaboration Switcher [pdf] User Manual VLPT-42H100, HDM-B88H100P-UK0001, VLPT-42H100 Multi Format Collaboration Switcher, Multi Format Collaboration Switcher, Format Collaboration Switcher, Collaboration Switcher, Switcher

References