User Manual

ALTIMIUM

KIT.EDCP2H

HDBaseT Educational Kit

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Version: KIT.EDCP2H_2016V1.0

Preface

Read this user manual carefully before using this product. Pictures shown in this manual is for reference only, different model and specifications are subject to real product.

This manual is only for operation instruction only, not for any maintenance usage. The functions described in this version are updated till December 2016. In the constant effort to improve our product, we reserve the right to make functions or parameters changes without notice or obligation. Please refer to the dealers for the latest details. Please refer to the dealers for the latest details.

All product function is valid till 2016-12-5.

Trademarks

Product model and logo are trademarks. Any other trademarks mentioned in this manual are acknowledged as the properties of the trademark owner. No part of this publication may be copied or reproduced without the prior written consent.

FCC Statement

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. It has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation.

Operation of this equipment in a residential area is likely to cause interference, in which case the user at their own expense will be required to take whatever measures may be necessary to correct the interference

Any changes or modifications not expressly approved by the manufacture would void the user's authority to operate the equipment.

SAFETY PRECAUTIONS

To insure the best from the product, please read all instructions carefully before using the device. Save this manual for further reference.

- Unpack the equipment carefully and save the original box and packing material for possible future shipment

- Follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.

- Do not dismantle the housing or modify the module. It may result in electrical shock or burn.

- Using supplies or parts not meeting the products' specifications may cause damage, deterioration or malfunction.

- Refer all servicing to qualified service personnel.

- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.

- Do not put any heavy items on the extension cable in case of extrusion.

- Do not remove the housing of the device as opening or removing housing may expose you to dangerous voltage or other hazards.

- Install the device in a place with fine ventilation to avoid damage caused by overheat.

- Keep the module away from liquids.

- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the module immediately.

- Do not twist or pull by force ends of the optical cable. It can cause malfunction.

- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.

- Unplug the power cord when left unused for a long period of time.

- Information on disposal for scrapped devices: do not burn or mix with general household waste, please treat them as normal electrical wastes.

Contents

1. Introduction

1.1 Brief Introduction

KIT.EDCP2H designed to be used in educational schemes consist of Scaler Wall Plate HDBaseT Transmitter, HDBaseT Receiver and Control Panel

Transmitter provides two HDMI signal inputs, which support HDCP1.4 and can be switched freely. It transmit HDMI signal to Receiver via CAT5e/CAT6a cable, and the maximum distance can up to 30m at 1920x1200@60HZ.

Control panel is an easy-to-use control device for presentation show room, classrooms and boardrooms. It has four buttons used to replace four common functions of Remote Controller to control far-end devices, such as projector.

KIT.EDCP2H supports front panel button control and Web-based GUI control. Moreover, with its PoC solution, connect the DC adapter to Receiver, Transmitter and Control Panel are able to be energized synchronously.

1.2 Features

- Switch freely between two HDMI signal inputs
- HDMI output resolution up to 1920x1200@60HZ
- Support HDCP1.4
- Support MIC input
- 2x20Watt@4Ohm amplifier output.
- Customizable Control Panel, support IR Learning
- Read and write the data of IR Learning
- Support UPNP

1.3 Package List

- 1 x Transmitter (KIT.EDCP2H-T)
- 1 x Receiver (KIT.EDCPV2H-R)
- 1 x Control Panel (KIT.EDCP2H-PAD)
- 1 x Power adapter (DC 24V 2.71 A)
- 2 x Mounting ears(for Receiver)
- 4 x Screws (for installing mounting ears)
- 4 x Rubber feet (for Receiver)
- 1 x Pluggable Terminal Block(4-pin block, used for 2x20Watt@4Ω port)

- 3 x Pluggable Terminal Block(3-pin blocks, used for LINE OUT or RS232 port)
- 1 x Pluggable Terminal Block(2-pin block, used for REMOTE MUTE port)
- 1 x IR emitter
- 1 x USB control cable (USB-A to USB-B)
- 1 x White face plate
- 1 x User Manual

Notes：If you find any defective or missing parts, please contact your local dealer.
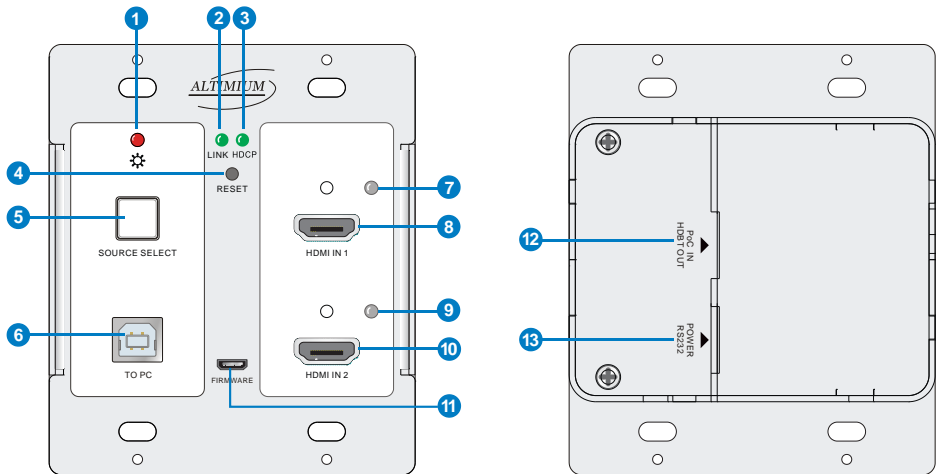
2. Panel Description

2.1 Transmitter

Figure 2-1 Transmitter

No.	Name	Description
①	Power	✓ OFF：No power ✓ RED：DC power present
②	Link	HDBT Link status indicator: ✓ OFF: No Link ✓ GREEN: Link successful ✓ Blinking GREEN: Link abnormal
③	HDCP	HDCP compliance indicator: ✓ OFF: No HDMI traffic(no picture) ✓ GREEN: Traffic with HDCP ✓ Blinking GREEN: Traffic without HDCP
④	RESET	Press this button to reboot Transmitter.
⑤	SOURCE SELECT	Blue-backlight button. Press it to select one source, press again to select next source, switching circularly between HDMI IN 1 and HDMI IN 2. **Note: Without any action for this button, the second HDMI source connected to transmitter will be recognized as input signal.**
⑥	To PC	Connect PC to transmit USB control signal.

| ⑦	HDMI IN 1 indicator	✓ OFF: No HDMI signal traffic ✓ YELLOW: HDMI signal traffic ✓ GREEN: HDMIN IN 1 is chosen as input source.
⑧	HDMI IN 1	Connect with HDMI source
⑨	HDMI IN 2 indicator	✓ OFF: No HDMI signal traffic ✓ YELLOW: HDMI signal traffic ✓ GREEN: HDMIN IN 2 is chosen as input source.
⑩	HDMI IN 2	Connect with HDMI source
⑪	FIRMWARE	Micro USB port, used for firmware update. Firmware updated need auxiliary equipment, please contact with our after-sales department for more details.
⑫	PoC IN HDBT OUT	Connect to the HDBT IN/PoC port on the Receiver via CAT5e/CAT6a cable to transmit AV and control signal. With PoC solution, Transmitter can be powered by this port once Receiver has been powered up.
⑬	POWER RS232	RJ45 connector. Connect to the POWER/RS232 port on the Control Panel via CAT5e/CAT6a cable to transmit RS232 control signal and power Control Panel.

2.2 Receiver
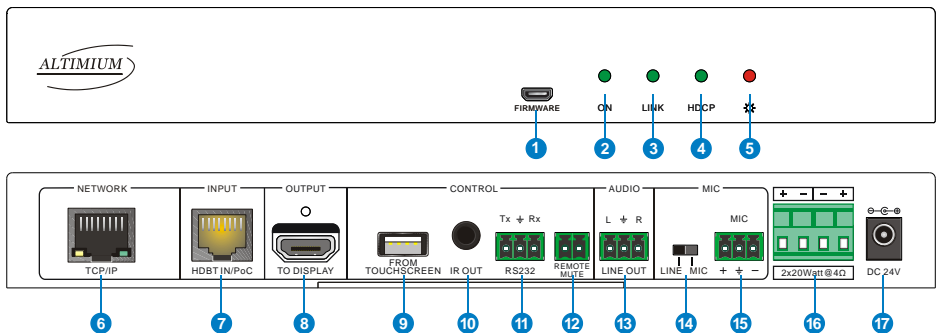
Figure 2-2 Receiver

No.	Name	Description
①	FIRMWARE	Micro USB port, used for firmware update. Firmware updated need auxiliary equipment, please contact with our after-sales department for more details.
②	ON	Working status indicator:

		✓ OFF: Not at work ✓ Blinking GREEN: Work normal
③	Link	HDBT Link status indicator: ✓ OFF: No Link ✓ GREEN: Link successful ✓ Blinking GREEN: Link abnormal
④	HDCP	HDCP compliance indicator: ✓ OFF: No HDMI traffic(no picture) ✓ GREEN: Traffic with HDCP ✓ Blinking GREEN: Traffic without HDCP
⑤	Power	✓ OFF：No power ✓ RED：DC power present
⑥	TCP/IP	Connect to a PC to control the following items by Web-based GUI: ✓ Input signal switching ✓ Volume adjusting ✓ Turn on or off the projector ✓ Put the system into standby or start it.
⑦	HDBT IN /PoC	Connect to the PoC IN/HDBT OUT port of Transmitter with a CAT5e cable.
⑧	TO DISPLAY	Connect with a projector.
⑨	FROM TOUCH SCREEN	USB-A connector. ✓ Connect to a Smart Board with embedded touch screen, and send USB signal back to signal source. ✓ Connect to an interactive projector to achieve on-line handwriting annotation, but it can't be synchronized to PC.
⑩	IR OUT	Connect with IR Emitter, IR signals emitted from the IR emitter are received by the in-built IR receiver of Control Panel.
⑪	RS232	Additional serial interface. Connect to a projector and send RS232 commands to control it.
⑫	REMOTE MUTE	Connect to Fire Alarm System. When the fire alarm signal input., the audio output of **HDMI signal source** will be set to mute.
⑬	LINE OUT	Connect to audio broadcast device to play the HDMI embedded audio and MIC audio in mixed mode. In additional, you can connect this port to Sound Recorder for sound recording.
⑭	MIC LINE	Input mode switch. ✓ When the switch turns to "**MIC**", the microphone input is used for connecting with dynamic microphone. There are two different connections: **1) Unbalanced connection:**

<table>
<tr><td></td><td></td><td>"⊥" connects to ground, and "-" connects to signal.
2) Balanced connection:

"+" connects to positive, "-" connects to negative and "⊥" connects to ground.

✓ When the switch turns to "**LINE**", the microphone input is used for connecting with normal audio or wireless microphone output. There are two different connections:
1) Unbalanced connection:

"⊥" connects to ground, and "-" connects to signal.

2) Balanced connection:

"+" connects to positive, "-" connects to negative and "⊥" connects to ground.</td></tr>
<tr><td>⑮</td><td>MIC</td><td>Connect with wireless microphone. Both Mic and Line are compatible.
When connect with PC or other audio input devices besides microphone, only "-"and "⊥" pins need to be used.</td></tr>
<tr><td>⑯</td><td>2x20Watt@4 Ω</td><td>Connect to speaker to play the HDMI embedded audio and MIC audio in mixed mode.</td></tr>
<tr><td>⑰</td><td>DC24V</td><td>Connect with DC 24V 2.71A power adapter.</td></tr>
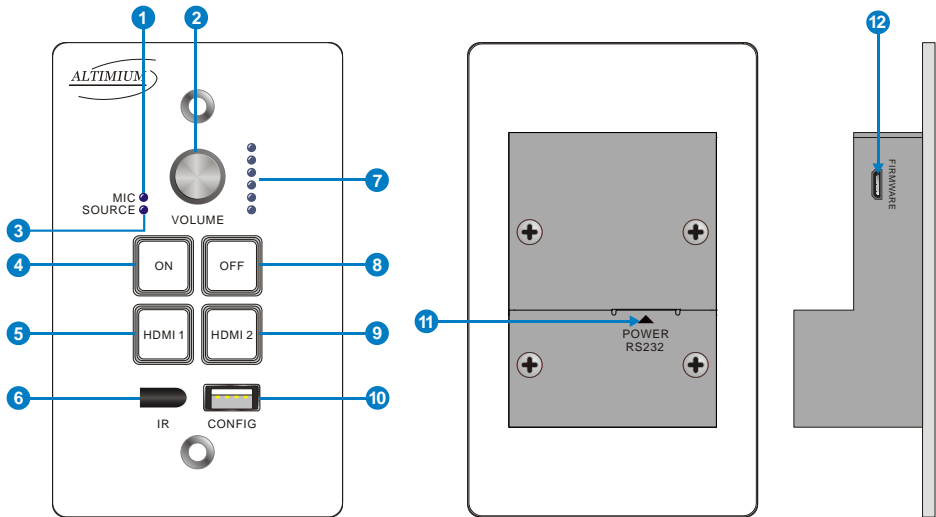</table>

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2.3 Control Panel

Figure 2-3 Control Panel

No.	Name	Description
①	MIC	MIC audio signal indicator, it will turn blue when the MIC audio is selected to adjust its volume.
②	VOLUME Knob	✓ Press this button to mute or unmute speaker. ✓ Long-press this button for 2 seconds to choose MIC or SOURCE input audio need to be adjusted. 1. Clockwise adjustment to increase the volume. 2. Anti-clockwise adjustment to decrease the volume.
③	SOURCE	HDMI embedded audio signal indicator, it will turn blue when the HDMI embedded audio is selected to adjust its volume.
④	ON	Blue-backlight button. It support IR learning and can be used to replace the open button of IR remote to turn on projector remotely.
⑤	HDMI 1	Blue-backlight button. Press it to select **HDMI IN 1** signal as input source.
⑥	IR	In-built IR sensor, receive IR signal sent from IR remote.
⑦	Volume level indicator	Six volume indicators to indicate volume level.

⑧	OFF	Blue-backlight button. It support IR learning and can be used to replace the close button of IR remote to turn off projector remotely.
⑨	HDMI 2	Blue-backlight button. Press it to select **HDMI IN 2** signal as input source.
⑩	CONFIG	USB-A connector. Connect with a U-disk to import or export configuration data.
⑪	POWER RS232	RJ45 connector. Connect to the POWER/RS232 port on the Transmitter via CAT5e/CAT6a cable to transmit RS232 control signal. Control Panel can be powered by Transmitter via this port.
⑫	FIRMWARE	Micro USB port, used for firmware update. Firmware updated need auxiliary equipment, please contact with our after-sales department for more details.

Note: Pictures shown in this manual are for reference only.

3. System Connection

3.1 Usage Precautions

1) System should be installed in a clean environment and has a prop temperature and humidity.

2) All of the power switches, plugs, sockets and power cords should be insulated and safe.

3) All devices should be connected before power on.
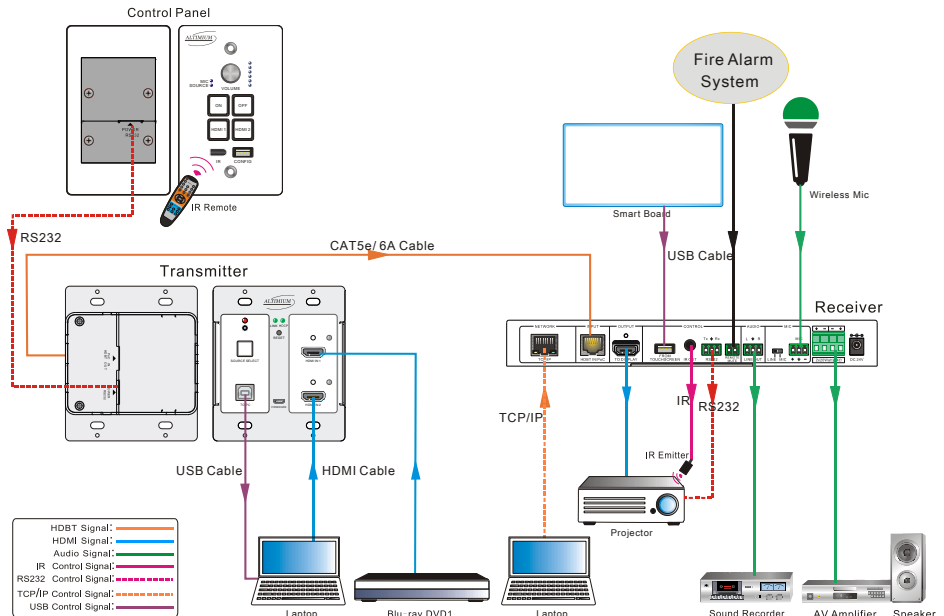
3.2 System Diagram

Figure 3-1 System Diagram

3.3 Connection Procedure

Step1. Connect a HDMI source device (e.g. Blue-ray DVD) to **HDMI IN 1** port of Transmitter with HDMI cable.

Step2. Connect another HDMI source device (e.g. PC) to **HDMI IN 2** port of Transmitter with HDMI cable.

Step3. Connect PC to **TO PC** port of Transmitter with USB control cable.

Step4. Connect **HDBT OUT/PoC IN** port of Transmitter and **HDBT IN/PoC** port of Receiver on the rear panel with single CAT5e/CAT6a cable.

Step5. Connect **POWER RS232** port of Transmitter and **POWER RS232** port of Control Panel on the rear panel with single CAT5e/CAT6a cable. The distance between Transmitter and Control Panel should be keep within 5 meters.

Step6. Connect a projector to the **TO DISPLAY** and **RS232** port of Receiver.

Step7. Connect a smart board to the **FROM TOUCH SCREEN** port of Receiver with USB control cable.

Step8. Connect audio broadcast device to the **LINE OUT** port of Receiver. For example, connect to SoundRecorder for sound recording.

Step9. Connect a microphone (here is wireless Mic) to the **MIC** port of Receiver

Step10. Connect **REMOTE MUTE** port of Receiver to the Fire Alarm System.

Step11. Connect a speaker to the **2x20Watt@4** port of Receiver.

Step12. Connect a PC to the **TCP/IP** port of Receiver for Web-based GUI control.

Step13. Connect an IR Emitter to the **IR OUT** port of Receiver, and then put it near the projector.

Step14. Connect DC24V 2.71A power adaptor to the power port of Receiver.

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1) System Diagram shown in this manual are for reference only, more specific schemes depend on real devices.

2) Connect HDBT ports via straight-thru CAT5e/6 cable with TIA/EIAT568B standard terminations at both ends.

3.4 PoC Solution

KIT.EDCP2H supports PoC, which allows several terminals share the same power supply and eliminates the need for extra power supply at the remote nodes.

Connect a DC24V 2.71A power adapter to the power port of Receiver,

Transmitter and Control Panel can be energized synchronously with PoC solution, see the picture below:
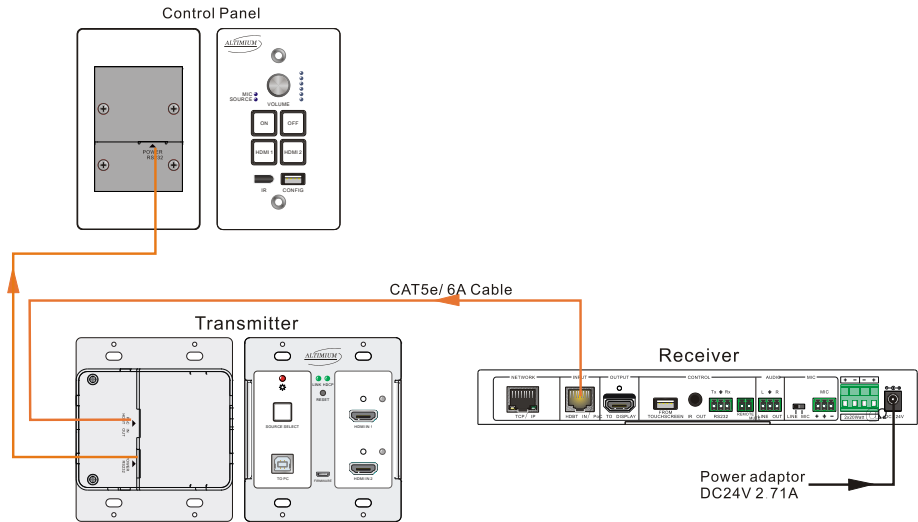
Figure 3-2 PoC Solution Diagram

3.5 Application

KIT.EDCP2H has a good application in educational system. It is designed for solving some difficult issues, such as teacher can't freely switch signal sources and annotate some important things on whiteboard in class. This section provides a brief introduction to the major application scenarios.

- **Scenario 1: Before Class**

1. Press the button **"ON"** of Control Panel to turn on the projector or long-press it to start system.

2. Connect HDMI signal sources (e.g. PCs) to the **HDMI IN 1** and **HDMI IN 2** port of Transmitter.

3. Turn on wireless microphone.

- **Scenario 2: In Class**

1. Press the button **"HDMI 1"** or **"HDMI 2"** to switch back and forth conveniently between two HDMI signal inputs.

2. Long-press the knob **"VOLUME"** to choose MIC audio or HDMI embedded audio need to be adjusted. Then, clockwise adjustment to increase the volume; anti-clockwise adjustment to decrease the volume.

3. Teachers can directly write some annotation on the smart board to explain things that are hard to understand for students. Projector will receive these video signal by USB

`control cable and then display it on smart board.

- **Scenario 3: At the end of this class**

Press the button **"OFF"** to turn off projector or long-press it to put the system into standby.

4. System Operation

4.1 IR Learning Function

IR learning function allows user to use the buttons of Control Panel to displace some keys of IR remote to control projector or other devices. Control Panel has four buttons: **"ON"**、 **"OFF"**、 **"HDMI 1"**、**"HDMI 2"**, but **"HDMI 1"**、**"HDMI 2"** do not support IR learning function, because they are designed for switching HDMI signal sources.

● **Operation Procedure:**

1. Long-press the button **"HDMI 1"** until the buttons **"ON"** and **"OFF"** light up, and then release **"HDMI 1",** the blue backlight of "**HDMI 1"** will goes out to enter IR learning mode.

2. Press the button **"ON"** to enter IR learning status, and it will keep blinking blue.

3. Press the corresponding button (such as "Open" button) on IR remote, meanwhile, put IR remote close to the IR sensor of Control Panel.

4. Once user set up successfully, the button **"ON"** will stop blinking

5. Next, repeat the above steps to set another button **"OFF"**.

6. Finally, Long-press the button **"HDMI 2"** to exit programming mode.

● **Realization of IR learning function:**

1. Press the button "**ON**" to turn on the projector.

2. Press the button "**OFF**" to turn off the projector.

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✧ When the system enter IR leaning status, long-press the button **"HDMI 2"** for more than 5 seconds can exit.

✧ If there is no operation for 60 seconds, the system will exit automatically.

✧ The blue backlight of all buttons will go out while the system exits successfully.

4.2 Front Panel Button Control

● **Via Control Panel**

✧ There are two modes for controlling projector and system: synchronous and asynchronous control mode. They are can be selected via web-based GUI. For more details, please refer to the ***4.6.2 Setting Menu.***

◆ **Synchronous control:**

Press the buttons **"ON"** or "**OFF**" on Control Panel to turn on/off the projector

and system concurrently

◆ **Asynchronous control:**

Press **"ON" to** turn on projector or long-press it to start system.

Press **"OFF"** to turn off projector or long-press it to put system into standby.

✧ Press **"HDMI 1"** or **"HDMI 2"** to switch input signal between two HDMI signal sources.

● **Via Transmitter**

✧ Press **"SOURCE SELECT"** to select one source, press again to select next source, switching circularly between HDMI IN 1 and HDMI IN 2.

✧ Press **"RESET"** to reboot Transmitter.

4.3 USB Signal Return

Receiver has a USB port (**FROM TOUCH SCREEN)** to connect with Smart Board. When user make notes on smart board, Receiver will receive the signal from Smart Board via USB cable and send it back to HDMI signal source (PC), and then it will be transmitted to projector for display. Please refer to the return path of USB signal as shown as below.
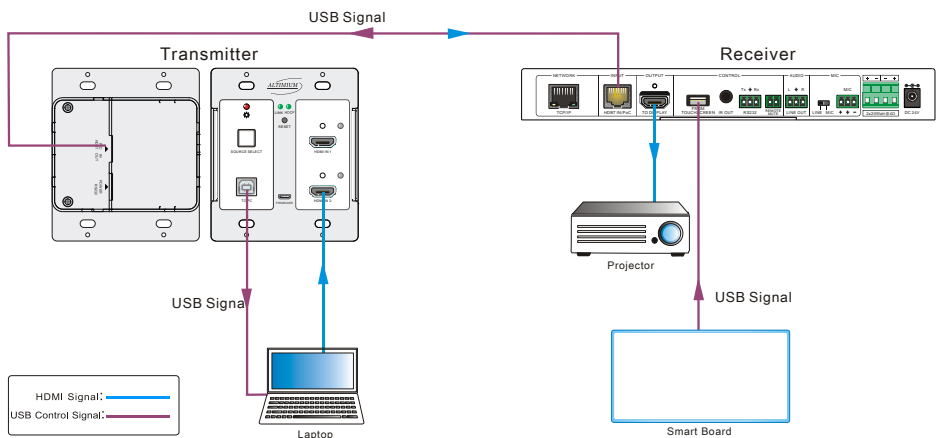

Figure 4-1 Return Path Diagram

Note: The distance between Receiver and Smart Board should be controlled within 4m, otherwise, the special USB control cable should be used.

4.4 RS232 control

Receiver provides an additional RS232 interface to connect with a projector, and then control it by sending RS232 commands via Web-based GUI. Please refer to *4.6.3 Command Menu*.
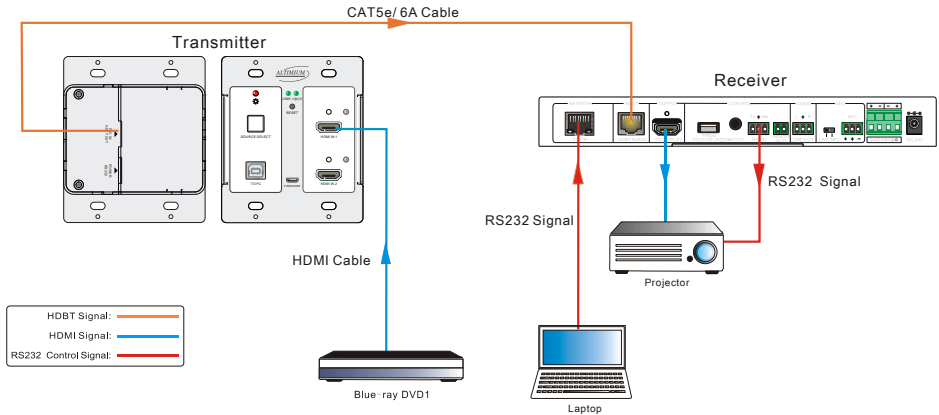

Figure 4-2 RS232 Control Diagram

4.5 IR control

Control Panel provides in-built IR sensor and Receiver provides an **IR OUT** port for IR Emitter to control far-end device from local.

In this educational system, put the IR remote of projector close to in-built IR sensor of Control Panel, and put IR Emitter close to the far-end projector, then the projector can be controlled by IR remote based on IR pass-through function.
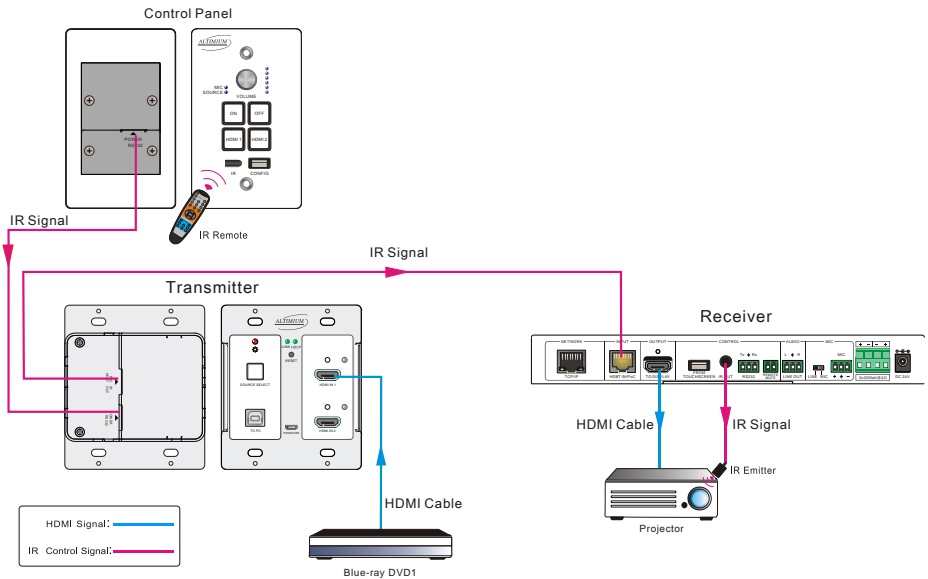
Figure 4-3 IR Control Diagram

4.6 Web-based GUI Control

Except button control, USB control, RS232 control, IR control, KIT.EDCP2H can be controlled via web-based GUI control. It allows users to interact with KIT.EDCP2H through graphical icons and visual indicators.

Connect the **TCP/IP** port of the Receiver to Ethernet port of PC with twisted pair, and then modify the PC's network segment as the same as the KIT.EDCP2H's. For example, the IP address of PC can be modified as *192.168.0.177*.

Type **192.168.0.178** in your browser, it will enter the log-in interface shown as below:
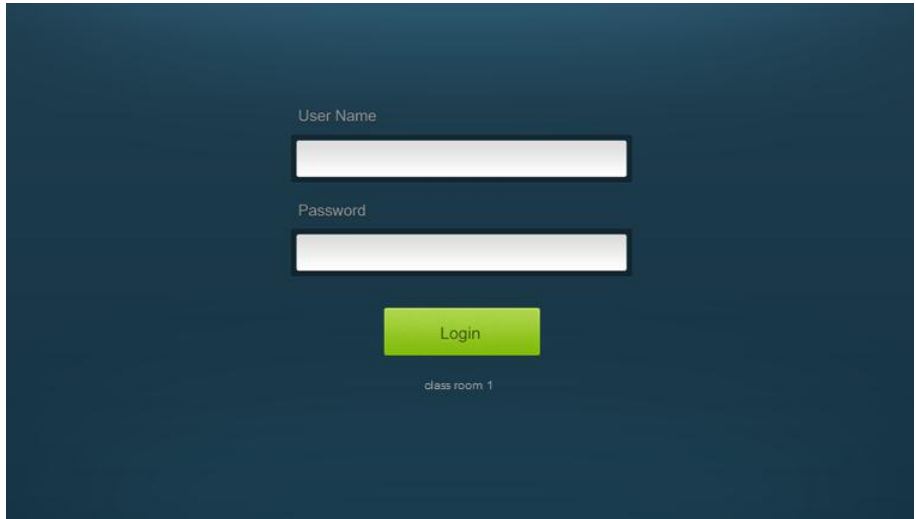
Figure 4-4 Login GUI

There are 2 selectable usernames – admin (default password: admin) and user (default password: user).

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Log in as admin can access more setting interfaces than user. Here is a brief introduction to these interfaces on administrator mode.

4.6.1 Control Menu

In log-in interface, type the username: **admin**, password: **admin**, and then click **Login**, it will show the control menu as shown below:

Figure 4-5 Control Menu

In this interface, you can:

✧ Click "**1**" or "**2**" in the **HDMI** bar to choose a HDMI signal source

✧ Click "**ON**" or "**OFF**" in the **DISPLAY** bar to turn on or turn off the display device, here is a projector.

✧ Select "**ON**" or "**OFF**" in the **SYSTEM** bar to turn on or turn off system.

✧ Adjust the volume of Microphone and signal source by moving scrollbar or clicking the buttons below. Click "**Mute**" to mute Mic or source sounds, click this button again to unmute.

Note：When you use IPad to click the button or , it is a normal phenomenon

that the button will shake.

4.6.2 Setting Menu

In control menu, click the setting button to access setting menu as shown in the
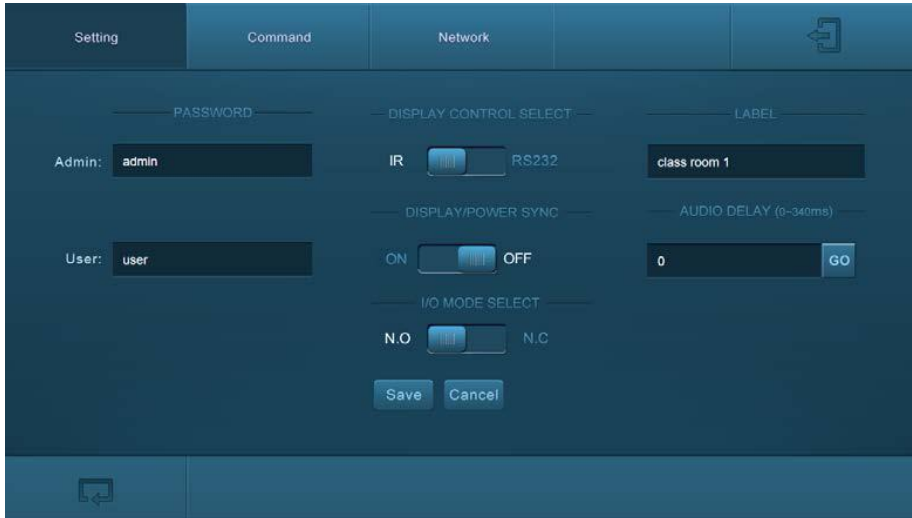
below:

Figure 4-6 Setting Menu

In this interface, you can:

✧ Modify the passwords on the left PASSWORD bar.

✧ Select the control mode for turning on/off projector in **DISPLAY CONTROL SELECT** bar, default mode is IR control.

✧ Select "**ON**" or "**OFF**" in the **DISPLAY/POWER SYNC** bar to turn on/off the synchronous control mode for projector and system. This option is only active if the display is controlled via RS232.

◆ When synchronous control mode is **ON**, press the buttons **"ON"** or "**OFF**" on Control Panel to turn on/off the projector and system concurrently

◆ When synchronous control mode is **OFF**, press **"ON"** on Control Panel **to** turn on projector or long-press it to start system, press "**OFF**" to turn off projector or long-press it to put this system into standby.

✧ Select "**N.O**" or "**N.C**" in the **I/O MODE SELECT** bar to turn on/off the **REMOTE MUTE** port connected Fire Alarm System. Under "**N.O**" mode, when the fire alarm signal input, the audio output of **HDMI signal source** will be set to mute.

✧ Modify the label showed on Log-in interface.

✧ Set the **AUDIO DELAY**, and the range is 0~340ms to ensure audio and video signal can output synchronously.

✧ Click "**Save**" to save these settings.

4.6.3 Command Menu

In setting menu, click "**Command**" to access command menu as shown in the below:
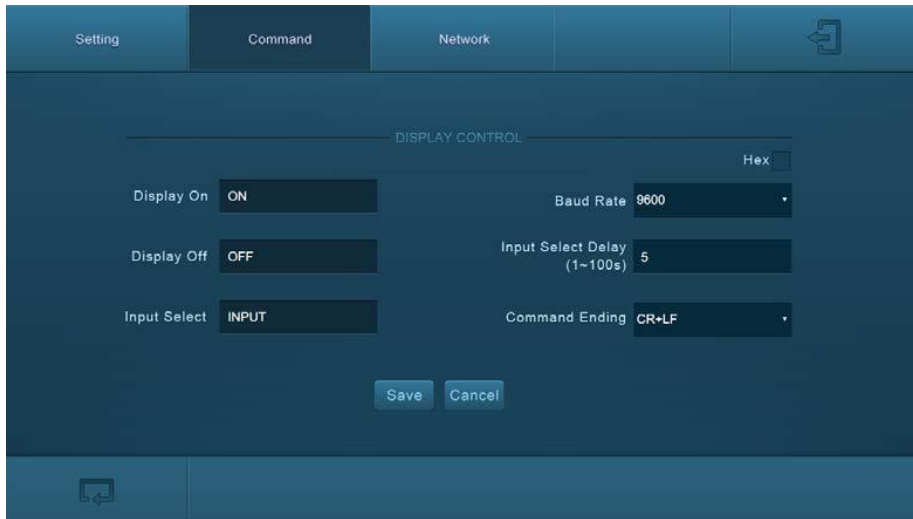

Figure 4-7 Command Menu

In this interface, you can:

✧ Enter the commands of projector in **Display On**/**Display OFF**/**Input Select** box to turn on/turn off projector or select signal source.

✧ Select the **Hex** checkbox to set the format of commands as hexadecimal. The default is character format.

✧ Modify the baud rate, the default value is 9600 and the selectable range is 2400~115200.

✧ Set the **Input Select Delay.** The default time is 5 seconds. Send the command typed on **Display ON** box, wait 5 seconds, and then send the command typed on **Input Select** box.

✧ According to different projector to select command terminator. Please check the instrument manufacture's manual for proper command terminator.

✧ Click "**Save**" to save these settings.

Note: For more details about commands, please refer to the projector's user manual.

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4.6.4 Network Menu

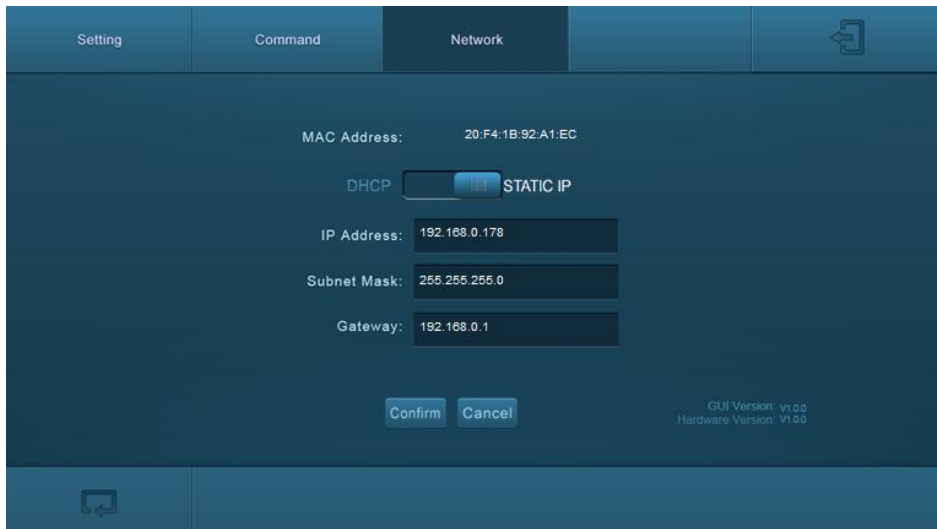Click "**Network**" to access network menu as shown in the below:

Figure 4-8 Network Menu

In this interface, you can:

Select dynamic or static IP mode. Under static IP mode, IP address and subnet mask, gateway can be set and make sure the IP addresses are different to avoid IP conflict.

While under DHCP mode, if you need to inquire the IP address, it can be checked via UPNP function.

4.6.5 GUI update

GUI for KIT.EDCP2H supports online update in ***http://192.168.0.178:100***.

Type the username and password (the same as the GUI log-in settings, modified password will be available only after rebooting) to log in the configuration interface. After that, click Administration at the source menu to get to Upload Program as shown below:
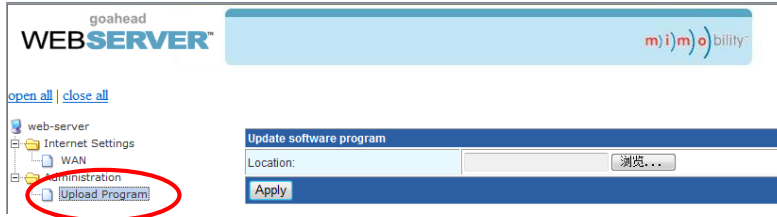
Select the desired update file and press Apply, it will start upgrading then.

4.7 Copy and load configuration data

The system IR or RS232 configuration can be copied to a USB thumb drive and loaded into additional systems or be saved as a backup.

4.7.1 Copy Configuration Data

1) Insert a 4GB or smaller FAT32 formatted thumb drive into the CONFIG port on Control Panel.

2) Press "**HDMI 2**"+"**OFF**" synchronously for three seconds on Control Panel. As soon as the buttons are released, they will light up while the copy is progress.

3) Remove the thumb drive from the CONFIG port once the buttons go dark.

4.7.2 Load configuration data

1) Insert a 4GB or smaller FAT32 formatted thumb drive with saved configuration data into the CONFIG port on Control Panel.

2) Press "**HDMI 1**"+"**ON**" synchronously for three seconds on Control Panel, the blue backlight of buttons will go out while import successfully.

3) Remove the thumb drive from the CONFIG port once the buttons go dark.

4) Enter the Command Menu via Web GUI, the loaded RS232 commands will be showed, and then press "**Save**'' to confirm them.

5. Specification

5.1 Transmitter

Video Ports			
Input Ports	2 x HDMI	Output Port	1 x HDBT+Power
Input Connectors	19-pin Type A HDMI female	Output Connector	RJ45
Transmission Mode	HDBaseT		
Control Ports			
1 x USB 1 x Micro USB			
General			
Resolution	1920x1080（24/25/30/50/60Hz）,1920x1080（50/60Hz）,1920x1080i（50/60Hz）,1600x900,1366x768,1280x720,1920x1200,1680x1050，1440x900，1360x768,1280x800,1600x1200,1400x1050，1280x1204,1024x768，800x600,640x480		
Deep Color	24-Bit at 1920x1080（24/25/30/50/60Hz）4:4:4; 48-Bit at 1920x1080（50/60Hz）4:4:4		
Signal Extension	Up to 30 meters @ 1080p/60 via Cat5e/6a cable.		
Bandwidth	10.2Gbps		
HDMI Standard	Support HDMI1.4 and HDCP1.4		
Temperature	0 ~ 50℃	Reference Humidity	10% ~ 90%
Dimension (W*H*D)	105 x 89 x 44 mm	Weight	242g

5.2 Receiver

Video Ports			
Input	1 x HDBT+Power	Output	1 x HDMI
Input Connector	RJ45	Output Connector	19-pin Type A HDMI female
Audio Ports			
Input	1 x MIC	Output	1 x amplifier（2x20Watt@4Ω）, 1 x analog audio（LINE OUT）
Input Connector	3-pin pluggable terminal block	Output Connector	4-pin pluggable terminal block; 3-pin pluggable terminal block
Control Ports			
1 x USB-A 1 x IR OUT(3.5mm jack) 1 x RS232 (3-pin pluggable terminal block) 1 x TCP/IP (RJ45)			
Other Ports			
1 x REMOTE MUTE(2-pin pluggable terminal block)			
General			
Resolution	1920x1080（24/25/30/50/60Hz），1920x1080（50/60Hz），1920x1080i（50/60Hz），1600x900, 1366x768, 1280x720,1920x1200,1680x1050 , 1440x900 , 1360x768,1280x800,1600x1200,1400x1050 , 1280x1204,1024x768，800x600,640x480		
Deep Color	24-Bit at 1920x1080（24/25/30/50/60Hz）4:4:4; 48-Bit at 1920x1080（50/60Hz）4:4:4		
Audio Format	HDMI embedded audio: PCM/Dolby/DTS MIC input audio: PCM Analog output Audio: PCM		
Signal Extension	Up to 30 meters @ 1080p/60 via Cat5e/6a cable.		
Bandwidth	10.2Gbps		
HDMI Standard	Support HDMI1.4 and HDCP1.4		
Power Supply	DC24V 2.71A	Power consumption	55w (Max)

Temperature	0 ~ 50℃	Reference Humidity	10% ~ 90%
Dimension (W*H*D)	250x 31 x 130 mm	Weight	642g

5.3 Control Panel

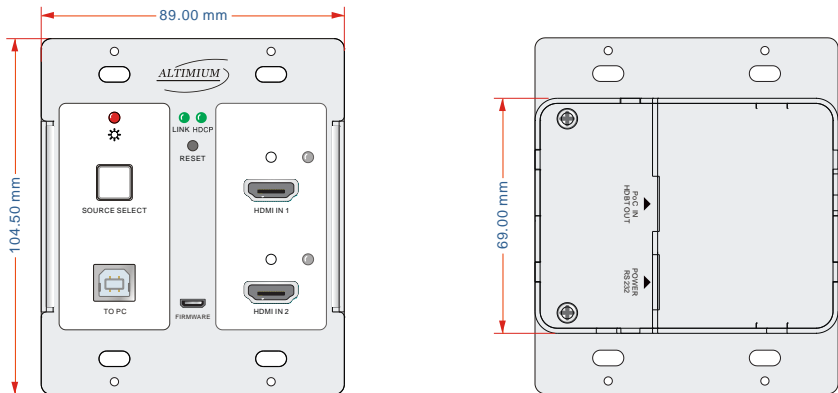| Specification			
Program Port	1 x Micro USB	Output Port	1 RS232+Power
Others	1 x Knob 4 x buttons(ON,OFF,HDMI 1,HDMI 2) 1 x IR in-built sensor		
Temperature	0 ~ 50℃	Humidity	10% ~ 90%
Case Dimensions	114x70 x34mm	Weight	140g

6. Panel Drawing

6.1 Transmitter

Figure 6-1 Dimension of Transmitter
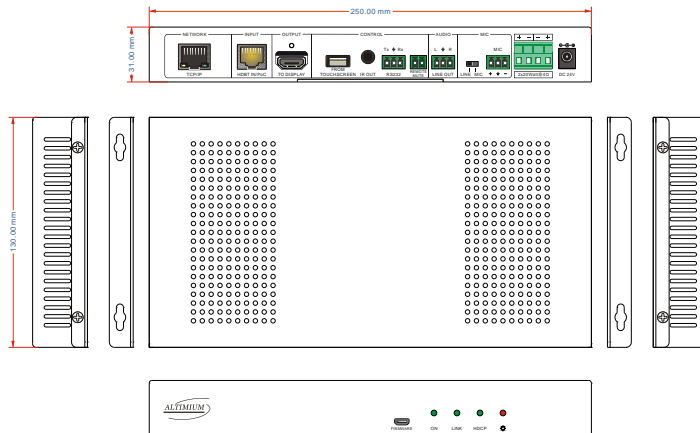
6.2 Receiver

Figure 6-2 Dimension of Receiver
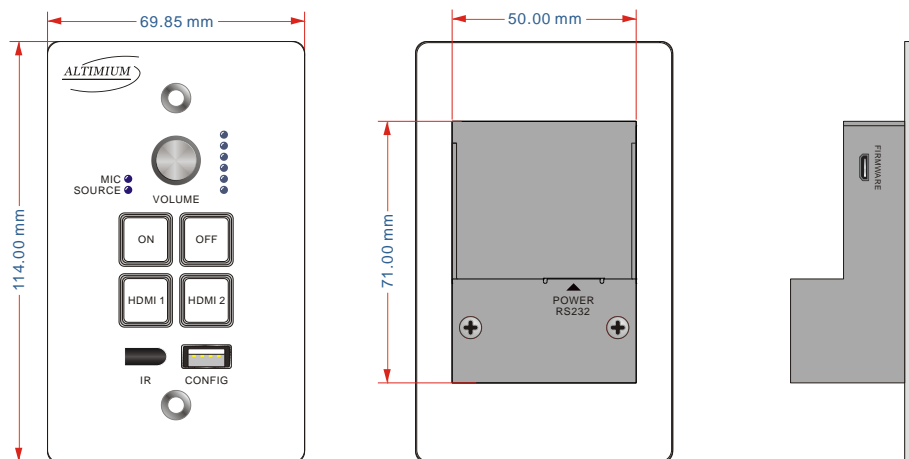
6.3 Control Panel

Figure 6-3 Dimension of Control Panel

7. Troubleshooting & Maintenance

Problems	Causes	Solutions
No reaction to any operation, power indicator is off	Haven't been powered on.	Insert power adapter to the receiver.
	The poor quality of network cable.	Should the replacement CAT5e/CAT6a cable of high quality.
POWER indicator doesn't work or no respond to any operation	Loose or failed power cord connection	Ensure the power cord connection is good
Color lose or poor picture quality	Signal loss caused by long transmission distance beyond effective value.	Make sure the connecting cable is within 30m and of good quality.
	Bad quality of the HDMI cable.	Ensure the HDMI cables used at source, transmitter, receiver and display are properly connected and are of good quality.
	HDMI cables are too long to transmit high-resolution HDMI signal successfully.	Shorten the length of HDMI cables.
No video output	Communication cables has no connection or bad connection.	Recheck all cables and ports.
	The display that you use is incompatible with this device.	It is recommended that you use mainstream display.
No audio output	Input source and output device are connected to the wrong ports.	Check again and make sure input source and output device are connected correctly.
	Audio output device don't support the audio format.	Change for other output devices that support the audio formats listed in *Specifications*.

Unable to login to Web-based GUI	The PC's network segment has not been modified.	The PC's network segment need to be set as the same as the KIT.EDCP2H's
Static becomes stronger when connecting the video connectors	bad grounding	Check the grounding and make sure it is connected well.
Cannot control the projector by control device (e.g. a PC) through RS232 port	Wrong RS232 communication parameters	Make sure the RS232 communication parameters are correct.
Cannot use the device	the device is broken	Send it to authorized dealer for repairing.

If your problem persists after following the above troubleshooting steps, seek further help from authorized dealer or our technical support.

8. After-sales Service

If there appear some problems when running this product please check and deal with the problems reference to this user manual. Any transport costs are borne by the users during the warranty.

1) **Product Limited Warranty:** We warrants that its products will be free from defects in materials and workmanship for **three years,** which starts from the first day you buy this product (The purchase invoice shall prevail).
   Proof of purchase in the form of a bill of sale or receipted invoice which is evidence that the unit is within the Warranty period must be presented to obtain warranty service.
2) **What the warranty does not cover:**
   - Warranty expiration.
   - Factory applied serial number has been altered or removed from the product.
   - Damage, deterioration or malfunction caused by:
     - Normal wear and tear
     - Use of supplies or parts not meeting our specifications
     - No certificate or invoice as the proof of warranty.
     - The product model showed on the warranty card does not match with the model of the product for repairing or had been altered.
     - Damage caused by force majeure.
     - Servicing not authorized
     - Any other causes which does not relate to a product defect
   - Delivery, installation or labor charges for installation or setup of the product
3) **Technical Support:** Email to our after-sales department or make a call, please inform us the following information about your cases.
   - Product version and name.
   - Detailed failure situations.
   - The formation of the cases.

Remarks: For any questions or problems, please try to get help from your local distributor.

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