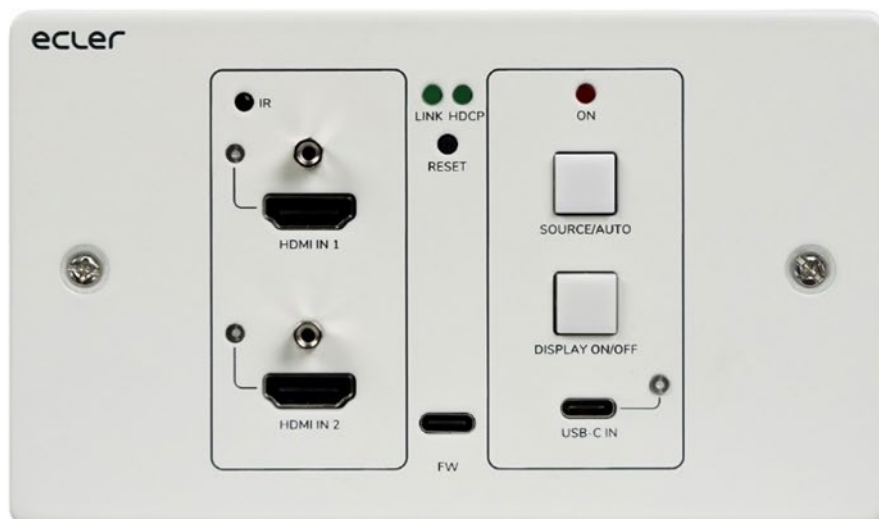


# VEO-XWT44E

HDBASET<sup>®</sup> EXTENDER

HDBaseT<sup>®</sup> Wallplate Transmitter, EU format



## USER MANUAL

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## 1. IMPORTANT REMARK




WARNING: SHOCK HAZARD - DO NOT OPEN  
AVIS: RISQUE DE CHOC ÉLECTRIQUE - NE PAS OUVRIR



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**WARNING (If applicable):** The terminals marked with symbol of “” may be of sufficient magnitude to constitute a risk of electric shock. The external wiring connected to the terminals requires installation by an instructed person or the use of ready-made leads or cords.

**WARNING:** To prevent fire or shock hazard, do not expose this equipment to rain or moisture.

**WARNING:** An apparatus with Class I construction shall be connected to a mains socket-outlet with a protective earthing connection.

## 2. IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9. Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at the plugs, convenience receptacles, and at the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Unplug the apparatus during lightening sorts or when unused for long periods of time.
13. Refer all servicing to qualified personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
14. Disconnecting from mains: When switching off the POWER switch, all the functions and light indicators of the unit will be stopped, but fully disconnecting the device from mains is done by unplugging the power cable from the mains input socket. For this reason, it always shall remain easily accessible.
15. Equipment is connected to a socket-outlet with earthing connection by means of a power cord.
16. The marking information is located at the bottom of apparatus.
17. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on apparatus.

**NOTE:** This equipment 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 when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



**WARNING:** This product must not be discarded, under any circumstance, as unsorted urban waste. Take to the nearest electrical and electronic waste treatment centre.

**NEEC AUDIO BARCELONA, S.L.** accepts no liability for any damage that may be caused to people, animal or objects due to failure to comply with the warnings above.

### 3. IMPORTANT NOTE

Thank you for choosing our Ecler **VEO-XWT44E HDBaseT® wallplate transmitter**.

It is **VERY IMPORTANT** to carefully read this manual and to fully understand its contents before any connection in order to maximize your use and get the best performance from this equipment.

To ensure optimal operation of this device, we strongly recommend that its maintenance be carried out by our authorised Technical Services.

**All ECLER products are covered by warranty**, please refer to [www.ecler.com](http://www.ecler.com) or the warranty card included with this product for the period of validity and conditions.

### 4. INTRODUCTION

Ecler VEO-XWT44 is a HDBaseT® transmitter in European 2-gang wallplate format. It allows to extend one 4K video signal up to 40m over a single Cat 5e/6 cable or a FullHD signal up to 70m when connected to VEO-XRT44. It supports real 4K video signals at 60Hz with 4:4:4 YUV chroma subsampling and HDR 10 with a maximum bandwidth of 18Gbps. With bidirectional PoC feature, the transmitter can be powered by the receiver and vice versa. VEO-XWT44 includes 2 HDMI® Inputs and one USB-C Input selectable via front panel button, automatic switching feature or RS-232. It allows extending IR and a bidirectional RS-232 signal along with the video signal. A second front panel button can be used to switch ON/OFF a display via CEC or it can be alternatively programmed by IR learning or RS-232 to send two RS-232 commands, offering a simple and versatile control option.

#### Features:

- 4K HDMI® wall-plate transmitter with 2 HDMI® IN, and 1 USB-C IN
- Supports HDMI®, 4Kx2K/60Hz/4:4:4
- HDCP 2.2 compliant
- Video source auto-switching
- Video lossless compression for HDBaseT® technology, transmission up to 40m@4K and 70m@1080p over CATx cable
- Displays can be turned ON/OFF via CEC & RS-232 commands by 'DISPLAY ON/OFF' button
- RS-232 and IR pass through.
- IR learning to control display on/off.
- EDID pass through and smart managing
- Two-way PoC
- Supports CEC pass-through.

- Provides LEDs to indicate the current operating status.
- Firmware upgrade by Micro-USB port.
- ESD protection

## 5. PACKAGES CONTENT

1 x **VEO-XWT44E** Transmitter / Switcher

1 x Surface mount box EU

2 x Mounting screws

1 x 3-pin Euroblock

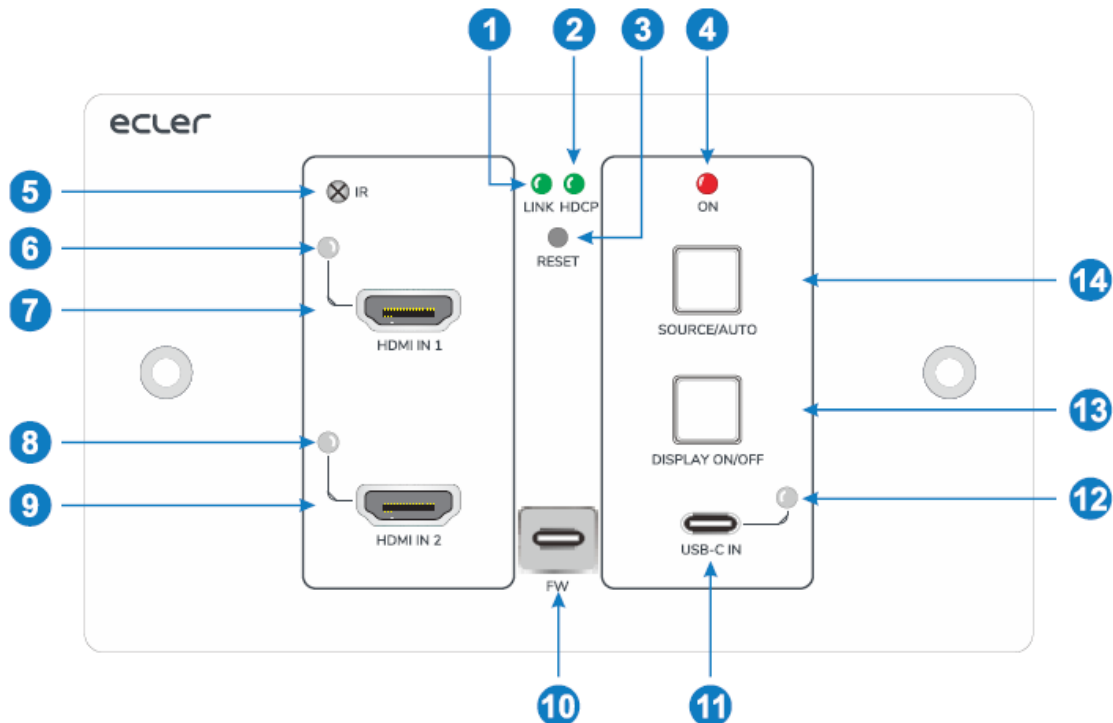
3 x 2-pin Euroblock

1 x Power Adapter (24V DC 1.25A) with international blades

1 x Quick guide and warranty

## 6. PANEL DESCRIPTIONS

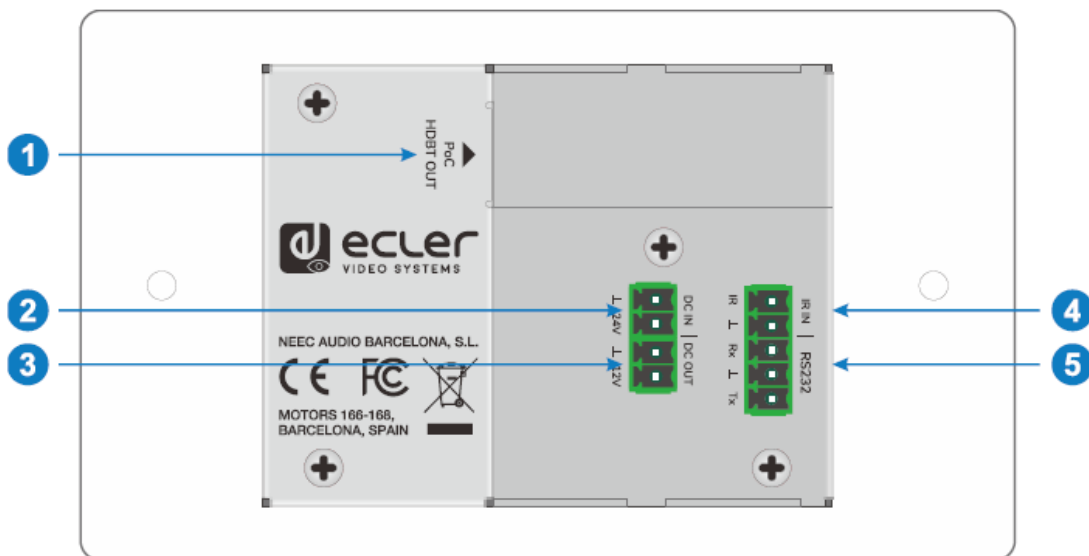
### 6.1. Front Panel



1. **LINK LED:** The LED illuminates green when the transmitter is successfully connected to the receiver by a CATx cable.
2. **HDCP LED:**
  - a. **The LED illuminates green** when the HDMI<sup>®</sup> signal is transmitted with HDCP.
  - b. **The LED blinks green** when the HDMI<sup>®</sup> signal is transmitted without HDCP.
  - c. **The LED turns off** when there is no HDMI<sup>®</sup> signal input.
3. **RESET:** Press the recessed button to reboot this unit.
4. **POWER LED:** The LED illuminates red when power is applied.
5. **IR:** Built-in IR sensor for IR learning feature or IR pass-through control.
6. **HDMI<sup>®</sup> IN 1 LED:** The LED illuminates orange when the HDMI<sup>®</sup> IN 1 port is connected to a source device, and it will turn green once the device is selected as input source.
7. **HDMI<sup>®</sup> IN 1:** Type-A HDMI<sup>®</sup> port to connect HDMI<sup>®</sup> source.
8. **HDMI<sup>®</sup> IN 2 LED:** The LED illuminates orange when the HDMI<sup>®</sup> IN 2 port is connected to a source device, and it will turn green once the device is selected as input source.
9. **HDMI<sup>®</sup> IN 2:** Type-A HDMI<sup>®</sup> port to connect HDMI<sup>®</sup> source.
10. **FIRMWARE:** USB-C port for firmware upgrade.
11. **USB-C:** Type-C USB to connect the Macbook or other device with USB-C output.

- 12. USB-C LED:** The LED illuminates orange when the USB-C port is connected to a source device, and it will turn green once the device is selected as input source.
- 13. DISPLAY ON/OFF:** Press the blue-backlight button to turn on/off the display by automatically sending CEC and RS-232 command (Programming required). For more details, please refer to 8.2 Display Control.
- 14. SOURCE AUTO:**
- Press the blue-backlight button to select the next input source.
  - Press and hold the button at least 3 seconds to enable auto switching mode. For more details, please refer to [8.1 Source Switching](#).

## 6.2. Rear Panel

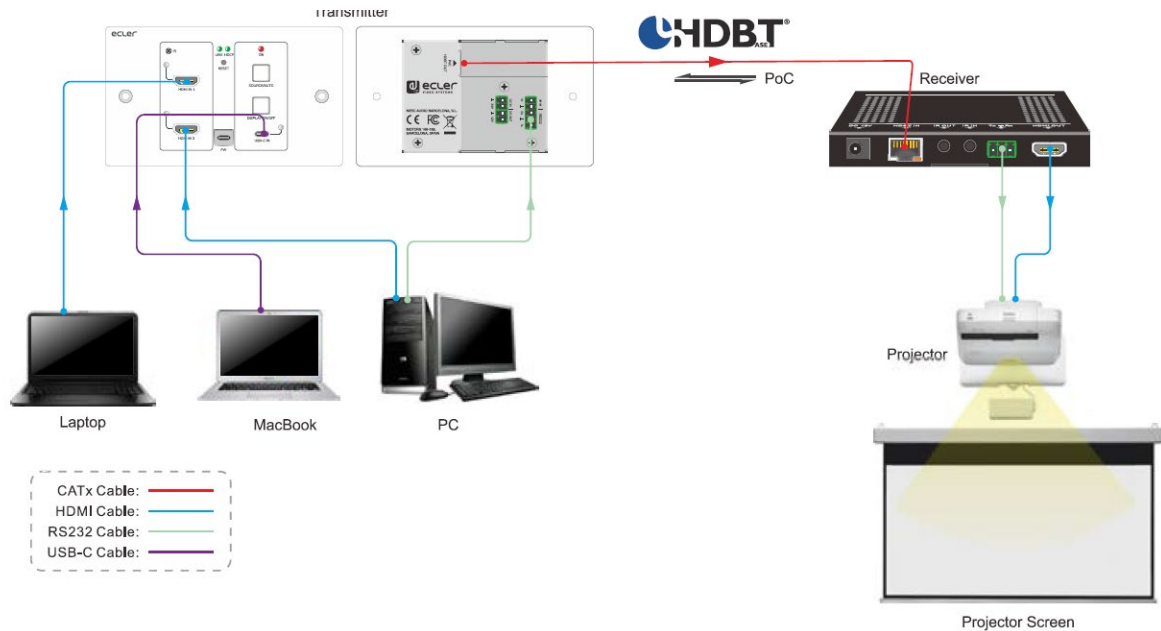


1. **HDBT OUT (POC):** RJ45 HDBaseT® output port to connect to the HDBT IN port of the receiver by a CATx cable. It supports 12V-48V PoC to enable the switcher can be powered from a compatible receiver.
2. **DC IN:** Power port to connect 24V DC power adapter.
3. **DC OUT:** 2-pin terminal block to connect a compatible device which needs to be powered.
4. **IR IN:** 2-pin terminal block to connect third party control system.
5. **RS-232:** 3-pin terminal block to connect a control device (e.g. PC) to send the RS-232 command to control this unit, or to control the far-end third party device. For more details, please refer to chapter [RS-232 Control](#).



## 7. SYSTEM CONNECTION

The following diagram illustrates typical input and output connection that can be utilized with the switcher:



**Note:** We recommend the use of CATx shielded cables in order to guarantee the performances declared in the HDBaseT<sup>®</sup> protocol specs.

## 8. BUTTON CONTROL

### 8.1 Source Switching

- 1) Press the **SOURCE AUTO** button to switch to next source device, and then the corresponding input LED will turn green.
  
- 2) Press and hold the **SOURCE AUTO** button at least 3 seconds to enable auto switching mode. For auto switching mode, remember the following rules:
  - The switcher will switch to the first available active input starting at HDMI® IN 1> HDMI® IN 2 > USB-C.
  - New input: Once a new input signal detected, the switcher will automatically switch to this new signal.
  - Source removed: When an active source is removed, the switcher will switch to the first available active input starting at HDMI® IN 1.
  - Reboot: The switcher can save the last configuration before losing power. If the last switching mode is auto switching, the switcher will automatically enter auto switching mode once rebooted, then detect all inputs and memorize their connection status for future rebooting using. If the last selected input source is still available, the switcher will switch to this input. Otherwise, it will switch to the first available active input source starting at HDMI® IN 1.
  - Exit auto switching mode: Press and hold the **SOURCE AUTO** button for 3 seconds to exit the auto mode, and the input source will not be changed.

### 8.2 Display Control

- 1) Press the blue-backlight **DISPLAY ON/OFF** button to turn on/off the display by automatically sending CEC and RS-232 command (Programming required). When sending the ON command, the button will turn blue; when sending the OFF command and the button will be not illuminated.
  
- 2) The **DISPLAY ON/OFF** button also can be programmed by IR learning feature or RS-232 command. For more details, please refer to [User Defined Button](#).

## 9. RS-232 Control

### 9.1. RS-232 Connection

According to the RS-232 control mode, there are three types of RS-232 connection for different applications.

1. To control the switcher from local, please connect a control device (e.g. PC) to the RS-232 port of the switcher.
2. To control the switcher from remote, please connect a control device (e.g. PC) to the RS-232 port of the remote receiver.
3. To control the far-end third party device, please connect the control device (e.g. PC) to the RS-232 port of the switcher, and then please connect the third-party device (e.g. projector) to the RS-232 port of the remote receiver.

### 9.2. RS-232 Control

After devices are connected accordingly to the RS-232 connection diagram, VEO-XWT44E can be controlled by a PC (using serial terminal software) or by a third party control system.

Please set the correct COM number on your PC or control system and baud rate, data bit, stop bit and parity bit as follows:

**Baud rate:** 9600.

**Data bit:** 8.

**Stop bit:** 1.

**Parity bit:** none.

With these parameters it will be possible to communicate with the VEO device and send the commands listed in the next chapter.

## 10. RS-232 COMMANDS

The following table lists all the commands available for the VEO-XWT44E.

### Note:

- Command ending: “<CR><LF>”.
- Feedback Error: “COMMAND ERROR” or “OUT OF RANGE”.
- In the table, “[” and “]” are symbols for easy reading and do not need to be typed in the command.
- Type the command carefully, it is case-sensitive.

### 10.1. Device Control

Command	Description	Feedback Example
#GET_FIRMWARE_VERSION	Get firmware version.	@V1.0.0
#FACTORY_RESET	Restore factory default.	@FACTORY_RESET
#REBOOT	System reboot.	@REBOOT
#HELP	Get all command list.	
#SET_SIGNAL_DETECT_TMDS	Set signal detecting mode to TMDS. Signal exist if detecting TMDS.	@SIGNAL_DETECT_MODE_TMDS
#SET_SIGNAL_DETECT_5V	Set signal detecting mode to 5V. Signal exist if detecting 5V.	@SIGNAL_DETECT_MODE_5V
#GET_SIGNAL_DETECT	Get the signal detecting mode.	@SIGNAL_DETECT_MODE_TMDS
		@SIGNAL_DETECT_MODE_5V
#SET_KEYPAD_LOCK 0	Unlock panel buttons.	@KEYPAD_LOCK 0
#SET_KEYPAD_LOCK 1	Lock panel buttons.	@KEYPAD_LOCK 1
#GET_KEYPAD_LOCK	Get panel buttons locking status.	@KEYPAD_LOCK 0
		@KEYPAD_LOCK 1
#GET_STATUS	Get device status.	

## 10.2. Source Switching

Command	Description	Feedback Example
#SET_AV H1	Switch to HDMI <sup>®</sup> 1.	@AV H1
#SET_AV H2	Switch to HDMI <sup>®</sup> 2.	@AV H2
#SET_AV C	Switch to USB-C.	@AV C
#GET_AV	Get the current input source.	@AV H1
		@AV H2
		@AV C
#SET_AUTO_SWITCH 1	Enable auto switching mode.	@AUTO_SWITCH 1
#SET_AUTO_SWITCH 0	Enable manual switching mode.	@AUTO_SWITCH 0
#GET_AUTO_SWITCH	Get the source switching mode.	@AUTO_SWITCH 1
		@AUTO_SWITCH 0

## 10.3. HDCP Mode

Command	Description	Feedback Example
#SET_OUTPUT_HDCP ACTIVE	Set the HDCP mode to ACTIVE for output port.	@OUTPUT_HDCP ACTIVE
#SET_OUTPUT_HDCP ON	Set the HDCP mode to ON for output port.	@OUTPUT_HDCP ON
#SET_OUTPUT_HDCP OFF	Set the HDCP mode to OFF for output port.	@OUTPUT_HDCP OFF
#GET_OUTPUT_HDCP	Get the HDCP mode of output port.	@OUTPUT_HDCP ACTIVE
		@OUTPUT_HDCP ON
		@OUTPUT_HDCP OFF

## 10.4. EDID Management

The Extended Display Identification Data (EDID) is used by the source device to match its video resolution with the connected display. By default, the source device obtains its EDID from the connected display, but when the video resolution of display is higher than 4K@30Hz, the video resolution of source device will be 4K@30Hz.

Meanwhile, since the display with different capabilities is connected to the switcher, the below RS-232 commands can be used to set the EDID to a fixed value to ensure the compatibility in video resolution.

Command	Description	Feedback Example
#SET_EDID_MODE 0	EDID bypass.	@EDID_MODE 0
#SET_EDID_MODE 1	1920x1080@60Hz Stereo	@EDID_MODE 1
#SET_EDID_MODE 2	1920x1080@60Hz Lossless	@EDID_MODE 2
#SET_EDID_MODE 3	3840x2160@30Hz Stereo (Default)	@EDID_MODE 3
#SET_EDID_MODE 4	3840x2160@30Hz Lossless	@EDID_MODE 4
#SET_EDID_MODE 5	3840x2160@60Hz Stereo	@EDID_MODE 5
#SET_EDID_MODE 6	3840x2160@60Hz Lossless	@EDID_MODE 6
#SET_EDID_MODE 7	3840x2160@60Hz HDR Stereo	@EDID_MODE 7
#SET_EDID_MODE 8	3840x2160@60Hz HDR Lossless	@EDID_MODE 8
#SET_EDID_MODE 9	Select the user-defined EDID.  If the user-defined EDID has not been uploaded, send this command will set EDID to "3840x2160@30 Stereo".	@EDID_MODE 9
#UPLOAD_USER_EDID	Upload the user-defined EDID.	@USER_EDID READY  PLEASE SEND EDID DATA IN 10S  OK/ERROR
#GET_EDID_MODE	Get the current EDID.	@EDID_MODE 0
		@EDID_MODE 1
		@EDID_MODE 2
		@EDID_MODE 3
		@EDID_MODE 4
		@EDID_MODE 5
		@EDID_MODE 6

Command	Description	Feedback Example
		@EDID_MODE 7
		@EDID_MODE 8
		@EDID_MODE 9

## 10.5. Display Control

Command	Description	Feedback Example
#SET_DISPLAY ON	Power on the display device (CEC/RS232/IR).	@SET_DISPLAY ON
#SET_DISPLAY OFF	Power off the display device (CEC/RS232/IR).	@SET_DISPLAY OFF
#SET_VOL +	Volume up the display device.	@VOL +
#SET_VOL -	Volume down the display device.	@VOL -
#SET_VOL MUTE	Mute the display device.	@VOL MUTE
#AUTO_CEC_SET_PANEL_OPEN	Enable the function to automatically turn on/off display device. The display device will automatically turn on when detect a signal input, or it will automatically turn off when remove the last input.	@OPEN CEC DISPLAY ON/OFF WHEN SIGNAL/NOSIGNAL
#AUTO_CEC_SET_PANEL_CLOSE	Disable the function to automatically turn on/off display device.	@CLOSE CEC DISPLAY ON/OFF WHEN SIGNAL/NOSIGNAL
#GET_AUTO_CEC_SET_PANEL	Get the function status of automatically turn on/off display device.	@OPEN CEC DISPLAY ON/OFF WHEN SIGNAL/NOSIGNAL
#AUTO_CEC_PANEL_TIME [PARAM]:	Set the delay time of sending command to [PARAM]. After removing the last input, the display device will be automatically turned off when the delay time is up.  [PARAM] = 0 ~ 10000.	@DELAY TIME TO %d MINUTES, TO TURN OFF THE DISPLAY IF NO SOURCE DETECTED
#GET_AUTO_CEC_PANEL_TIME	Get the delay time of sending command of turning off display device.	@DELAY TIME TO %d MINUTES, TO TURN OFF THE DISPLAY IF NO SOURCE DETECTED

## 10.6. Third-party Device Control

Command	Description	Feedback Example																
<p>#SEND_A_[PARAM]:</p> <p>xxxx</p>	<p>Send the ASCII command "xxxx" to the third-party device which is connected to the HDBaseT<sup>®</sup> receiver. The baud rate of the third-party device is [PARAM].</p> <p>[PARAM] = "01~07". Represents the baud rate of the third-party device.</p> <table border="1"> <thead> <tr> <th>[PARAM]</th> <th>Baud Rate</th> </tr> </thead> <tbody> <tr><td>01</td><td>115200</td></tr> <tr><td>02</td><td>57600</td></tr> <tr><td>03</td><td>38400</td></tr> <tr><td>04</td><td>19200</td></tr> <tr><td>05</td><td>9600</td></tr> <tr><td>06</td><td>4800</td></tr> <tr><td>07</td><td>2400</td></tr> </tbody> </table>	[PARAM]	Baud Rate	01	115200	02	57600	03	38400	04	19200	05	9600	06	4800	07	2400	<p>#SEND_A_01:ABCD123</p> <p>@SEND_ASCII_STRING ABCD123</p>
[PARAM]	Baud Rate																	
01	115200																	
02	57600																	
03	38400																	
04	19200																	
05	9600																	
06	4800																	
07	2400																	
<p>#SEND_H_[PARAM]:</p> <p>xxxx</p>	<p>Send the HEX command "xxxx" to the third-party device which is connected to the HDBaseT<sup>®</sup> receiver. The baud rate of the third-party device is [PARAM].</p> <p>[PARAM] = "01~07". Represents the baud rate of the third-party device.</p> <table border="1"> <thead> <tr> <th>[PARAM]</th> <th>Baud Rate</th> </tr> </thead> <tbody> <tr><td>01</td><td>115200</td></tr> <tr><td>02</td><td>57600</td></tr> <tr><td>03</td><td>38400</td></tr> <tr><td>04</td><td>19200</td></tr> <tr><td>05</td><td>9600</td></tr> <tr><td>06</td><td>4800</td></tr> <tr><td>07</td><td>2400</td></tr> </tbody> </table>	[PARAM]	Baud Rate	01	115200	02	57600	03	38400	04	19200	05	9600	06	4800	07	2400	<p>#SEND_H_01:11 22 33</p> <p>@SEND_HEX_STRING 11 22 33</p>
[PARAM]	Baud Rate																	
01	115200																	
02	57600																	
03	38400																	
04	19200																	
05	9600																	
06	4800																	
07	2400																	



## 11. USER DEFINED BUTTON

Pressing the **DISPLAY ON/OFF** button allows turning the display on and off via CEC commands. If the display doesn't support CEC, the **DISPLAY ON/OFF** button can be programmed by IR learning feature or RS-232 command.

### 11.1. IR learning programming

Please follow the IR learning steps below in order to define the **DISPLAY ON/OFF** button functions:

1. Press and hold the **DISPLAY ON/OFF** button at least five seconds until the **SOURCE AUTO** button starts to flash in order to enable the IR learning mode.
2. Press the **DISPLAY ON/OFF** button to choose the ON or OFF IR command to be set:
  - Button LED lighting indicates that **DISPLAY ON** mode is selected.
  - Button LED flashing indicates that **DISPLAY OFF** mode is selected.
3. Point the IR remote at the IR sensor and press the respective button on the IR remote.
4. The **SOURCE AUTO** and **DISPLAY ON/OFF** buttons will keep lit for 3 seconds to indicate that IR command has been learnt: the **SOURCE AUTO** button will keep flashing and the **DISPLAY ON/OFF** button will be off.
5. Press and hold the **DISPLAY ON/OFF** button for five seconds again to exit IR learning mode. Please note that The IR learning function will self-terminate after 30 seconds of inactivity.



Command	Description	Feedback Example																						
	<p>Set the RS232 command "xxxx" to be sent to the third-party device when the <b>DISPLAY OFF</b> button has been pressed.</p> <ul style="list-style-type: none"> <li>[PARAM1] = A/H: <table border="1" data-bbox="547 409 890 501"> <thead> <tr> <th>[PARAM1]</th> <th>String</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>ASCII</td> </tr> <tr> <td>H</td> <td>HEX</td> </tr> </tbody> </table> </li> <li>[PARAM2] = "01~07": Represents the baud rate of the third-party device. <table border="1" data-bbox="547 566 890 808"> <thead> <tr> <th>[PARAM2]</th> <th>Baud Rate</th> </tr> </thead> <tbody> <tr> <td>01</td> <td>115200</td> </tr> <tr> <td>02</td> <td>57600</td> </tr> <tr> <td>03</td> <td>38400</td> </tr> <tr> <td>04</td> <td>19200</td> </tr> <tr> <td>05</td> <td>9600</td> </tr> <tr> <td>06</td> <td>4800</td> </tr> <tr> <td>07</td> <td>2400</td> </tr> </tbody> </table> </li> <li>[PARAM3] = "01~100": Represents the delay time of command sending.</li> </ul>	[PARAM1]	String	A	ASCII	H	HEX	[PARAM2]	Baud Rate	01	115200	02	57600	03	38400	04	19200	05	9600	06	4800	07	2400	@SET_OF_A_01_01:ABCDE FG
[PARAM1]	String																							
A	ASCII																							
H	HEX																							
[PARAM2]	Baud Rate																							
01	115200																							
02	57600																							
03	38400																							
04	19200																							
05	9600																							
06	4800																							
07	2400																							
#SET_KEY_CEC ON	Enable sending CEC command when the <b>DISPLAY ON/OFF</b> button has been pressed.	@KEY_CEC_SENDING ON																						
#SET_KEY_CEC OFF	Disable sending CEC command when the <b>DISPLAY ON/OFF</b> button has been pressed.	@KEY_CEC_SENDING OFF																						
#GET_KEY_CEC	Get the Enabled/Disabled status of sending CEC command when the <b>DISPLAY ON/OFF</b> button has been pressed.	@KEY_CEC_SENDING ON																						
		@KEY_CEC_SENDING OFF																						
#SET_KEY_IR ON	Enable sending IR data when the <b>DISPLAY ON/OFF</b> button has been pressed.	@KEY_IR_SENDING ON																						
#SET_KEY_IR OFF	Disable sending IR data when the <b>DISPLAY ON/OFF</b> button has been pressed.	@KEY_IR_SENDING OFF																						
#GET_KEY_IR	Get the Enabled/Disabled status of sending IR data when the <b>DISPLAY ON/OFF</b> button has been pressed.	@KEY_IR_SENDING ON																						
		@KEY_IR_SENDING OFF																						

## 12. TECHNICAL SPECIFICATIONS

### Video performances

<b>Supported Resolutions</b>	Up to 4Kx2K@60Hz 4:4:4 8bit HDR10
<b>Colorspace</b>	RGB, YCbCr
<b>Chroma Subsampling</b>	4:4:4, 4:2:0
<b>Color depth</b>	8-bit, 10-bit, 12-bit, 16-bit only @4K30
<b>Signal Bandwidth</b>	18 Gbps
<b>HDCP</b>	2.2/1.4 Compliant
<b>Video Connectors</b>	2xType-A Female HDMI®, Type-C Female USB

### Audio performances

<b>Audio Formats</b>	PCM 2Ch, PCM 5.1, PCM 7.1, Dolby Digital, DTS, Dolby TrueHD, DTS-HD Master Audio	
<b>Sample Rate</b>	32kHz, 44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz, 192kHz	
<b>Bit rate</b>	up to 24-bit	
<b>Frequency Response</b>	20Hz – 20KHz,	±3dB
<b>Max Output Level</b>	2.0Vrms	± 0.5dB
<b>SNR</b>	> 85dB	20Hz-20 kHz bandwidth

### Control performances

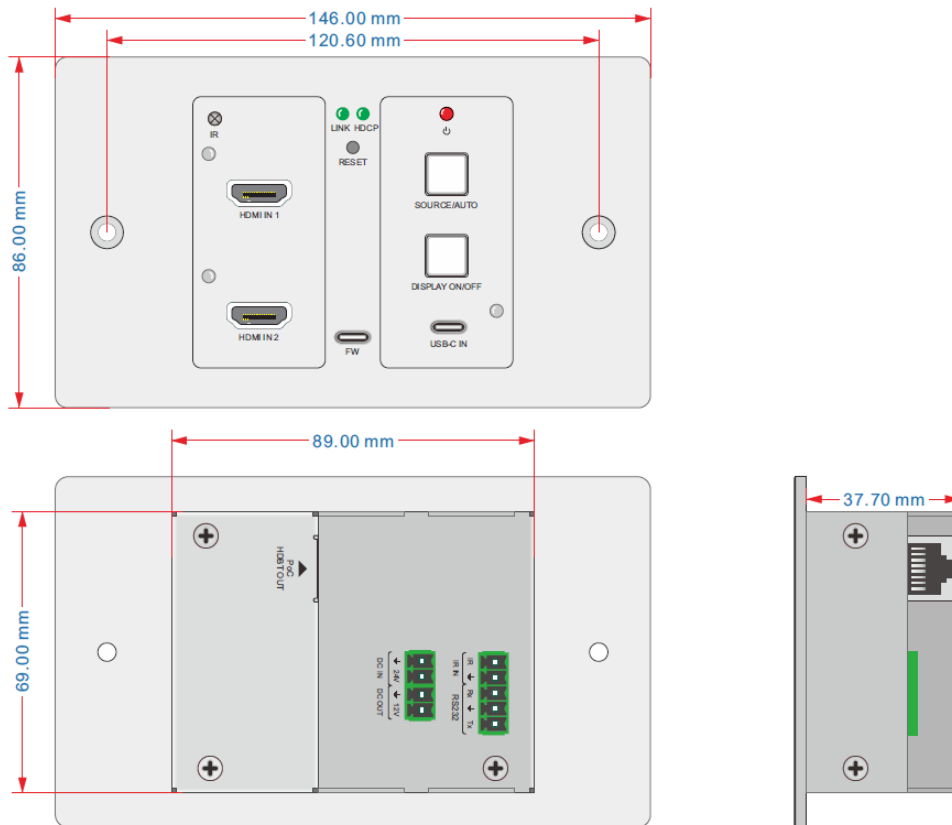
<b>TX Control ports</b>	IR Receiver,	IR Sensor Embedded
	RESET	Button
	SOURCE/AUTO	Back-lit button
	IR Control	2-pin Euroblock
	RS-232	3-pin Euroblock
	FW	Type-C USB Female

<b>CEC</b>	ON/OFF commands	Back-lit button or RS-232
	VOL+, VOL-	RS-232
	MUTE	RS-232

**General**

<b>HDMI® Distance</b>	up to 10 meters / 33 ft with Ecler VEO cables	
<b>Transmission Standard</b>	HDBaseT®	
<b>Cat.5e/6 Distance</b>	CAT5e/6 @ 4K up to 35 m / up to 115 feet	
	CAT6a/7 @ 4K up to 40 m/ up to 130 feet	
	CAT5e/6 @ 1080p up to 60 m / up to 197 feet	
	CAT6a/7 @ 1080p up to 70 m / up to 230 feet	
<b>Operating Temperature</b>	-10 to +55°C (14 to +131 °F)	
<b>Humidity</b>	10 to 90 % RH (no condensation)	
<b>Power Consumption</b>	22W (Max)	
<b>Power Supply</b>	Input:	AC 100V ~ 240V 50/60Hz
	Output:	DC 24V---1.25A
<b>Dimensions</b>	146mm × 86mm × 42mm (5.75" × 3.39" × 1.65")	
<b>Weight</b>	294g (0.648 lbs)	

### 13. MECHANICAL DIAGRAM



All product characteristics are subject to variation due to production tolerances. **NEEC AUDIO BARCELONA S.L.** reserves the right to make changes or improvements in the design or manufacturing that may affect these product specifications.

For technical queries contact your supplier, distributor or complete the contact form on our website, in [Support / Technical requests](#).

Motors, 166-168 08038 Barcelona - Spain - (+34) 932238403 | [information@ecler.com](mailto:information@ecler.com) | [www.ecler.com](http://www.ecler.com)