VEO-AEXS4

Audio Management Devices

HDMI 2.0 Audio Embedder and Extractor 18Gbps

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-AEXS4 HDMI 2.0 Audio Embedder and Extractor**!

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 or the warranty card included with this product for the period of validity and conditions.

4. INTRODUCTION

VEO-AEXS4 allows to extract and embed audio signals from the HDMI 2.0 input with support up to 4K video. It includes an unbalanced stereo analogue input and output with Euroblock connectors and a digital S/PDIF output with a coaxial connector. Function mode is selectable through the onboard dip-switch.

4.1. Main Features

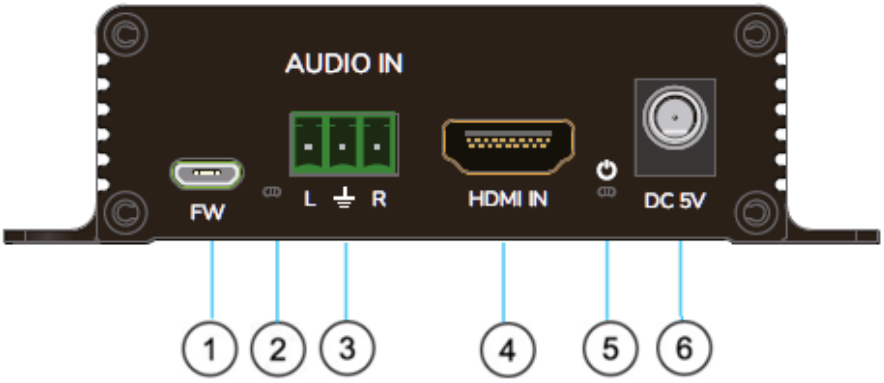
- Extracts audio stream from HDMI and converts it to analogue stereo or 5.1 digital audio.
- Embeds a stereo analogue input into HDMI signal replacing the original sound.
- HDMI 2.0 video input supporting resolution up to 4K@60Hz, YUV 4:4:4, 18Gbps.
- Supports 3D, HDR.
- HDCP2.2/1.4 compliant.

5. PACKAGE CONTENTS

- 1 x VEO-AEXS4.
- 1 x Power Supply.
- 2 x 3 Pin Euroblock Connector.

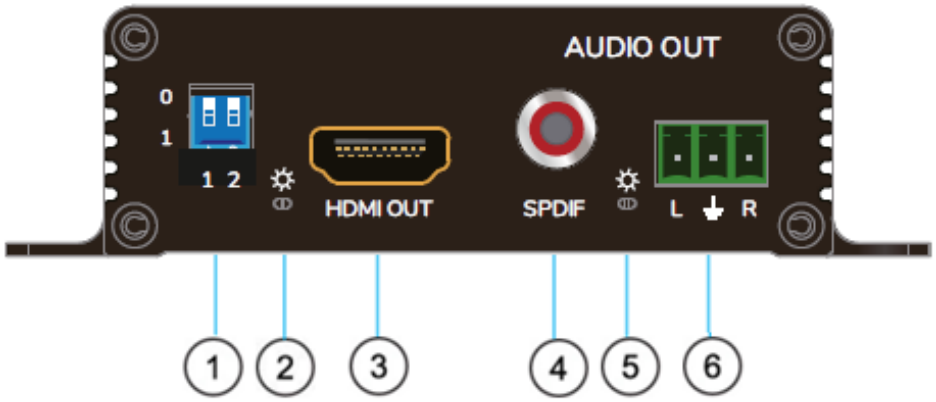
6. PANELS DESCRIPTION

6.1. Front Panel



1. **FW:** Firmware update connector.
2. **AUDIO IN LED:** This LED will lights in blue when the embed function is selected.
3. **AUDIO IN:** This connector allows to embed a line unbalanced stereo signal when the embedding function is selected.
4. **HDMI IN:** HDMI source input connector.
5. **POWER LED:** This LED lights in red when the device is correctly powered.
6. **DC 5V:** Power supply connector.

6.2. Rear Panel



1 **FUNCTIONS SELECTOR:** This dip-switch allows to select the device work modes like follows:

- 11 EDID pass-through
- 10 5.1 Audio extraction
- 01 2.0 Audio extraction
- 00 2.0 Audio embedding from AUDIO IN

2 **HDMI OUT LED:** This LED lights in blue when the HDMI OUTPUT is correctly connected.

3 **HDMI OUT:** HDMI loop output to connect to a HDMI display or distribution device.

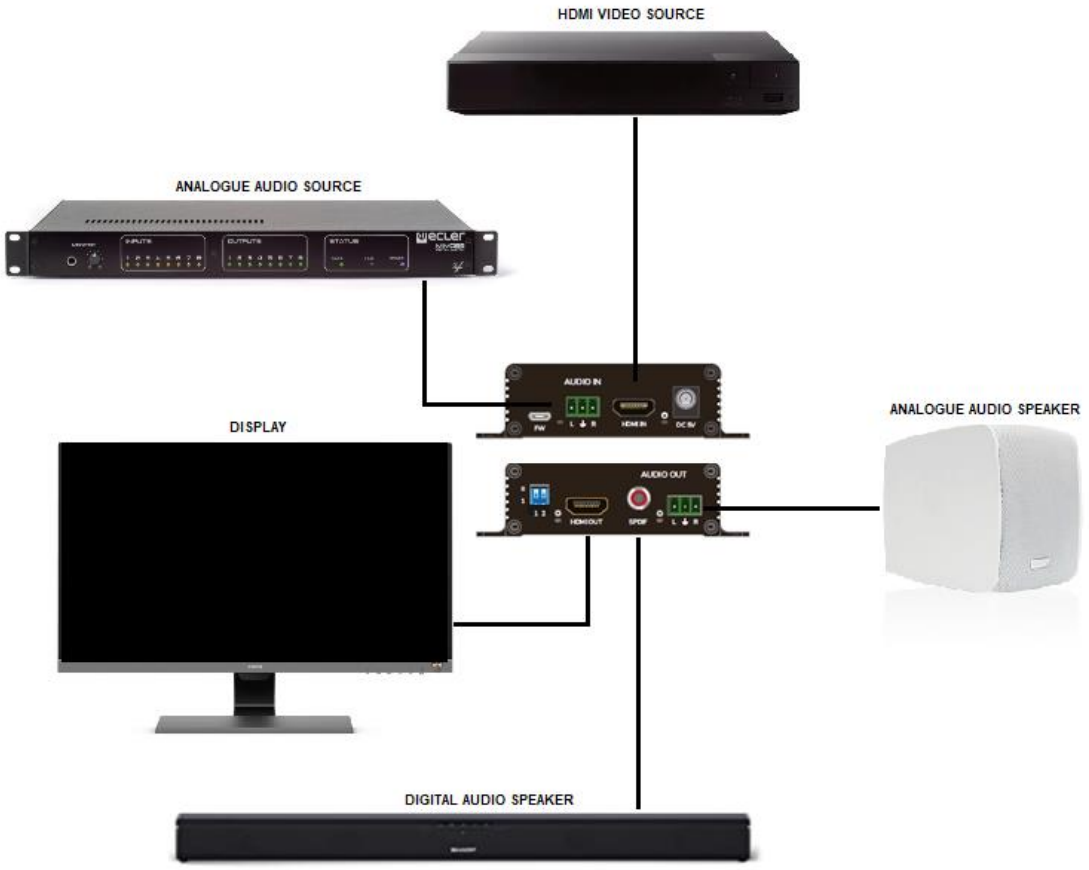
4 **SPDIF:** Connect this output to a coaxial digital audio input.

5 **AUDIO OUT LED:**

- Flashes in blue when only the coaxial digital output is active.
- Lights in blue when both digital and analogue out are active (only when encoded audio is PCM 2.0).

6 **AUDIO OUT:** Connect this analogue stereo unbalanced output to a line audio input.

7. CONNECTING DEVICES

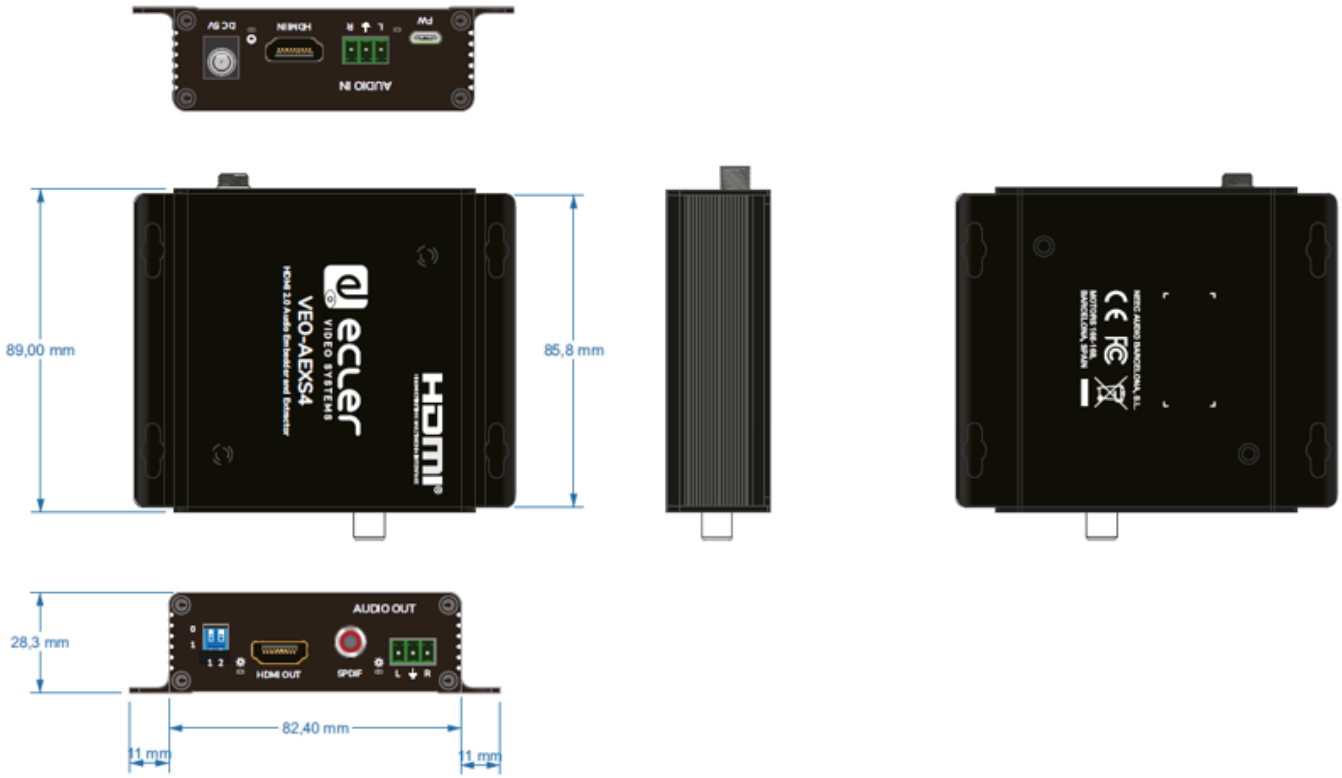


7.1 Connection and Operation

1. Connect the HDMI signal source (such as Bluray Player, STB, etc.) into HDMI input of VEO-AEXS4.
2. Connect the HDMI display device (such as: Display, Projector, etc.) into HDMI output of VEO-AEXS4.
3. Connect the digital audio cable or the analogue audio cable to an amplifier or an active loudspeaker.
4. Connect DC 5V power to the VEO-AEXS4.

Attention: Please insert/extract the HDMI cables gently.

8. MECHANICAL DIAGRAM



9. TECHNICAL SPECIFICATIONS

VEO-AEXS4

Video Performances	
Video Input Resolutions	Up to 4Kx2K@60Hz
Video Output Resolutions	Up to 4Kx2K@60Hz
Video Capture Resolutions	1080p@60Hz
Colour Space	RGB, YCbCr
Chroma Subsampling	4:4:4, 4:2:2
Colour Depth	8-bit, 10-bit, 12-bit
Signal Bandwidth	18 Gbps
HDCP	2.0 compliant
Video Connectors	Input: Type-A Female HDMI Output: Type-A Female HDMI
Audio Performances	
Audio Formats	Dolby True-HD, DTS-HD Master Audio, PCM;
Sample Rate	32 KHz, 44.1 KHz, 48 KHz, 88.2 KHz, 96 KHz, 176.4 KHz, 192 KHz
Bit Depth	16 to 24-bit
Frequency Response	20Hz–20KHz, ±3dB
Audio Input Connectors	1 x 3pin Euroblock for Stereo Unbalanced Input (PCM 2.0)
Audio Output Connectors	1 x 3pins Euroblock for Stereo Unbalanced Output (PCM 2.0) 1 x S/PDIF Coaxial
Control	
Source Selector	4-positions dip-switch for input source selection
LED Indication	Power ON 1 x red LED for power supply Audio IN 1 x blue LED for audio in active HDMI OUT 1 x blue LED for HDMI out active Audio OUT 1 x blue LED for audio out active
General	
HDMI Distance	up to 10 meters / 33 ft with Ecler VEO cables
Environmental	
Operation Temperature	-5 to +40°C (+23 to +104 °F)
Humidity	5 - 90% RH (no condensation)
Power Supply	
Power Supply	AC 100V ~ 240V 50/60Hz Output: DC 5V---1A
Power Consumption	Max 2W
Mechanical	
Dimensions	104.4 x 89 x 28.3mm (4.11” x 3.50” x 1.11”)
Weight	155g / 0.342lbs

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.

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