

VEO-SPH48

DISTRIBUTION AMPLIFIER / SPLITTER

1x8 HDMI 2.0 Distribution Amplifier / Splitter



USER MANUAL



INDEX

1. IMPORTANT REMARK	3
2. IMPORTANT SAFETY INSTRUCTIONS.....	3
3. IMPORTANT NOTE.....	5
4. PACKAGE CONTENTS	5
5. PANEL DESCRIPTION	7
6. CONNECTION AND INSTALLATION.....	8
7. APPLICATION DIAGRAM	8
8. TECHNICAL SPECIFICATIONS.....	9



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: Switching off the POWER switch all the functions and light indicators of the amplifier will be stopped, but fully disconnecting the device from mains is done unplugging the power cord from the mains input socket. For this reason, it always shall remain readily operable.
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 VEO-SPH42 distribution amplifier/splitter. It is very important to carefully read this manual and to fully understand its contents before making 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.

The VEO- SPH42 comes with a 3-year warranty.

4. INTRODUCTION

Ecler VEO-SPH48 is a professional 1x8 HDMI 2.0 distribution amplifier/splitter. It supports HDR formats and HDMI data rate up to 18Gbps, including 4K/UHD@60Hz video resolution with 4:4:4 chroma sampling. It includes EDID management in three different modes and it is HDCP 2.2 compliant. VEO-SPH48 guarantees seamless integration for all applications that require latest 4K/UHD and HDR sources and displays.

Features:

- Simultaneously displays Ultra Hi-Definition source on up to eight Ultra HD displays
- Supports resolution up to Ultra HD 4Kx2K (4096x2160@60Hz YUV 4:4:4)
- Three EDID setting modes
- HDCP 2.2/1.4 Compliant
- Supports 36 bit Deep Color
- Supports LPCM 7.1, Dolby TrueHD, Dolby digital Plus, and DTS-HD Master Audio
- Supports HDR and 3D content
- Supports up to 18Gbps video data rate

5. PACKAGE CONTENTS

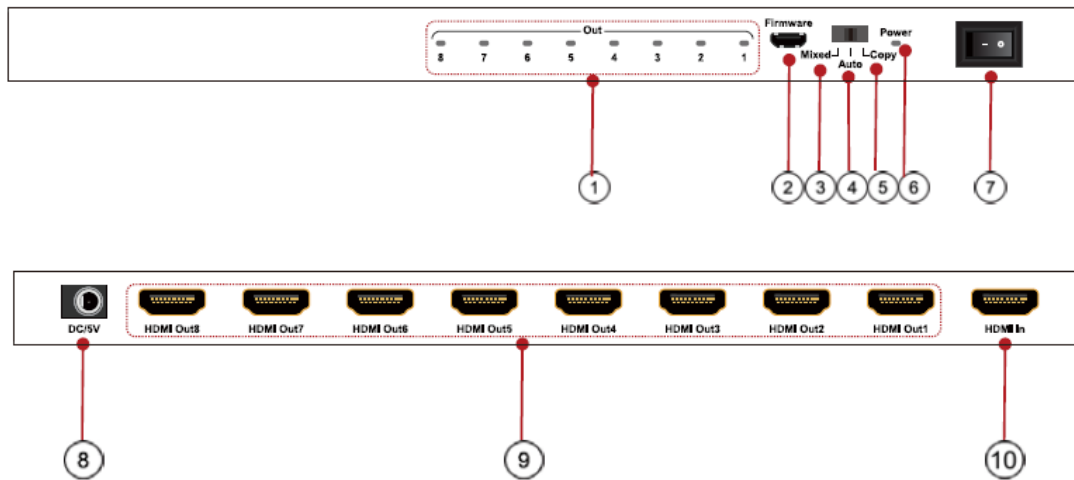
- 1 x HDMI Distribution Amplifier/Splitter
- 1 x 5V DC 1A International Power Supply





6. PANEL DESCRIPTION

Front and Rear Panel



1. HDMI Output link Indicators

2. Firmware Upgrade Port

3. EDID Function Switch: Mixed mode

EDID settings will follow the highest common resolution supported by display connected to Out8, in order to ensure compatibility between all displays.

4. EDID Function Switch: Auto mode

EDID information is managed by VEO-SPH48 as reported in table in paragraph 7.

5. EDID Function Switch: Copy mode

In this mode, when Out8 is connected to display, the displays connected to Out7-1 will receive a copy of the EDID information negotiated by Out8.

6. Power LED Indicator

7. Power Switch

8. 5V DC Power Connector

9. HDMI Output ports

10. HDMI Input port



7. CONNECTION AND INSTALLATION

1. Connect HDMI signal source (such as PC, Blu-ray player, etc) to VEO-SPH48 HDMI input port.
2. Connect VEO-SPH48 HDMI output ports to displays.
3. Power up VEO-SPH48, displays and sources.

Note:

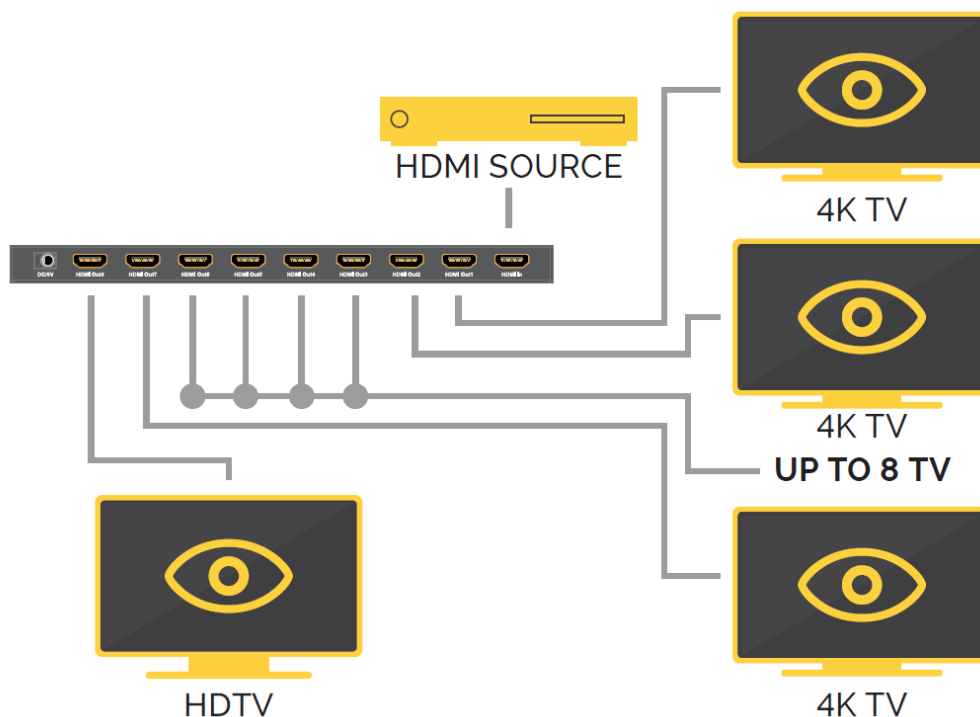
- HDCP version is prior to EDID: 4K@60Hz EDID settings will be accepted only if displays are HDCP 2.2 compliant, otherwise output will be automatically set to 1080p@60Hz.

Please check the following table:

Input source	HDMI display Support HDCP2.2	HDMI display Doesn't support HDCP2.2
HDCP2.2 4K@60Hz	HDCP2.2 4K@60Hz	HDCP1.4 1080p@60Hz
HDCP2.2 4K@24Hz	HDCP2.2 4K@24Hz	HDCP1.4 1080p@24Hz
HDCP1.4 4K@24Hz	HDCP1.4 4K@24Hz	HDCP1.4 4K@24Hz

- HDR formats are not supported when VEO-SPH42 is in “Auto” mode.

8. APPLICATION DIAGRAM



9. TECHNICAL SPECIFICATIONS

Supported Resolutions

4096x2160@24/25/30/50/60Hz,
 3840x2160@24/25/30/50/60Hz, 2048x1080p
 1080p@23.98/24/25/29.97/30/50/59.94/60Hz,
 1080i@50/59.94/60Hz, 720p@50/59.94/60Hz,
 576p, 576i, 480p, 480i

Colorspace

YCbCr, RGB

Chroma Subsampling

4:4:4, 4:2:2, 4:2:0

Color depth

8-bit, 10-bit, 12-bit

HDR

HDR10

Signal Bandwidth

18 Gbps

HDCP

2.2, 1.4 Compliant

Audio Formats

PCM 2Ch, LPCM 5.1, LPCM 7.1, Dolby Digital, DTS
 5.1, Dolby TrueHD, DTS-HD Master Audio

Sample Rate

32kHz, 44.1kHz, 48kHz, 88.2kHz, 96kHz,
 176.4kHz, 192kHz

Bitrate

up to 24-bit

HDMI Distance

up to 10 meters (33 feet) with Ecler VEO cables

Operating Temperature

-5 to +40°C (+41 to +104°F)

Humidity

5 - 90% RH (no condensation)

Power Consumption

5W Maximum

Power Supply

AC100~240V 50/60Hz Output: DC 5V/1A

Dimensions H x W x D

248mm x 110mm x 17mm (9.76" x 4.33" x 0.67")

Weight

610g (1.345 lbs)



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.

Motors, 166-168 08038 Barcelona - Spain - (+34) 932238403 | information@ecler.com | www.ecler.com

