

VEO-XPT44A

4K HDBaseT EXTENDERS

HDMI 2.0 HDBaseT Extender Kit 18Gps with Audio Extraction



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 lightning 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 HDMI 2.0 HDBaseT Extender Kit 18Gps with Audio Extraction, Ecler VEO-XPT44A model!

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.

4. INTRODUCTION

VEO-XPT44A is a professional HDBaseT extension kit that includes a transmitter and a receiver. It allows to extend a 4K video signal up to 40m or a Full HD signal up to 70m over a single Cat 5e/6 cable. It supports 4K video signals at 60Hz with 4:4:4 YUV chroma subsampling and HDR10. The transmitter includes a HDMI loop output for monitoring or daisy-chain connection. A stereo unbalanced output on Euroblock connector is available both, on the transmitter and the receiver, for easy integration. In addition, VEO-XPT44A includes bidirectional PoH feature so the transmitter can be powered by the receiver and vice versa. With a reduced form factor and the added features of RS-232 and bidirectional IR, this is the perfect solution for any applications where AV and control extensions are required.

4.1. Main Features

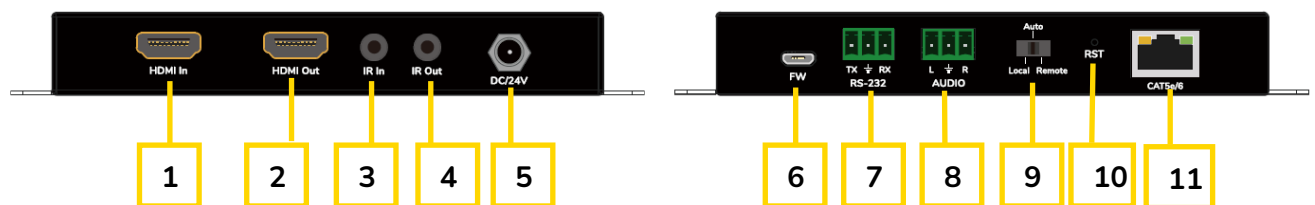
- Complete HDBaseT extender kit, no settings needed.
- Supports up to 4K@60hz, YUV, 4:4:4 resolution.
- Transmission distance reaches up to 70 meters when Full HD and 40 meters when 4Ksignal
- HDMI loop out on Transmitter.
- Bi-directional IR and RS-232 pass-through.
- Bi-directional POH (Receiver powered by TRANSMITTER or vice versa).
- PCM 2.0 Audio de-embedding on TRANSMITTER and RECEIVER.
- HDCP2.2/1.4 compliant.
- Support for HDR10 and 3D.
- ESD protection.

5. PACKAGE CONTENTS

- 1 x Transmitter Unit
- 1 x Receiver Unit
- 1 x 24VDC International Power Supply (One PSU for both units)
- 2 x IR Blaster unit
- 2 x IR Receiver unit
- 4 x Euroblock plugs for RS-232 and audio cable termination

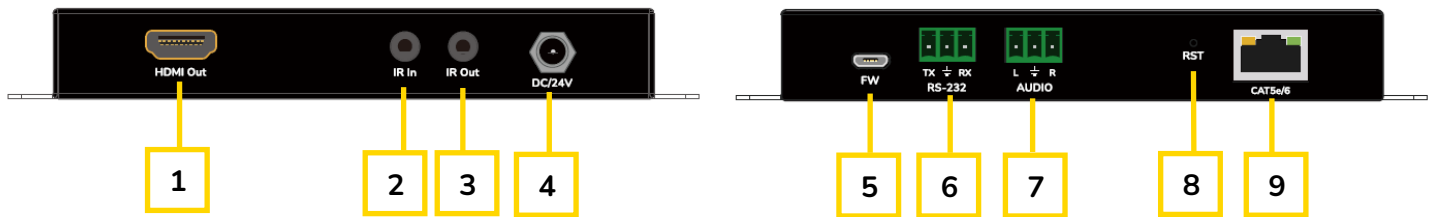
6. PANELS DESCRIPTION

6.1. Transmitter: Front and Rear Panel



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|--|--|
| <ul style="list-style-type: none"> 1 HDMI input 2 HDMI loop output 3 IR receiver 4 IR transmitter 5 24V DC plug connector | <ul style="list-style-type: none"> 6 USB port (Reserved for Firmware updating) 7 RS-232 port 8 Audio De-embedding port 9 EDID Mode Selector: <ul style="list-style-type: none"> ○ Auto: default 4K@60Hz ○ Local: copy EDID data from the display connected to the transmitter ○ Remote: copy EDID data from the display connected to the receiver 10 Reset button 11 CAT5e/6/7 HDBaseT output |
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6.2. Receiver: Front and Rear Panel

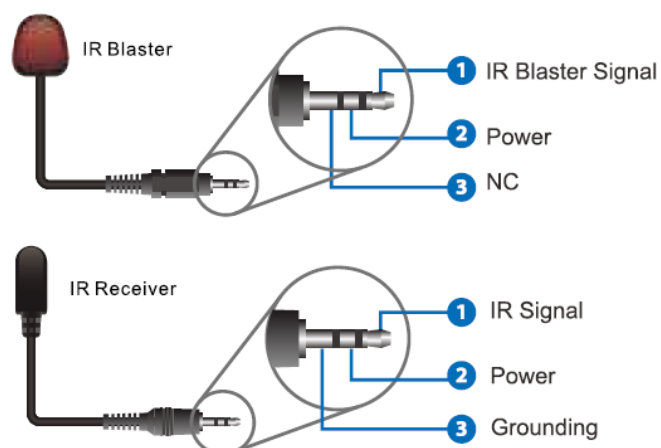


- | | |
|--|--|
| <ol style="list-style-type: none"> 1 HDMI Out 2 IR receiver 3 IR transmitter 4 24V DC Plug connector | <ol style="list-style-type: none"> 5 USB port (Reserved for Firmware updating) 6 RS-232 port 7 Audio De-embedding port 8 Reset button 9 CAT5e/6/7 HDBaseT input |
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7. DEVICE CONNECTION

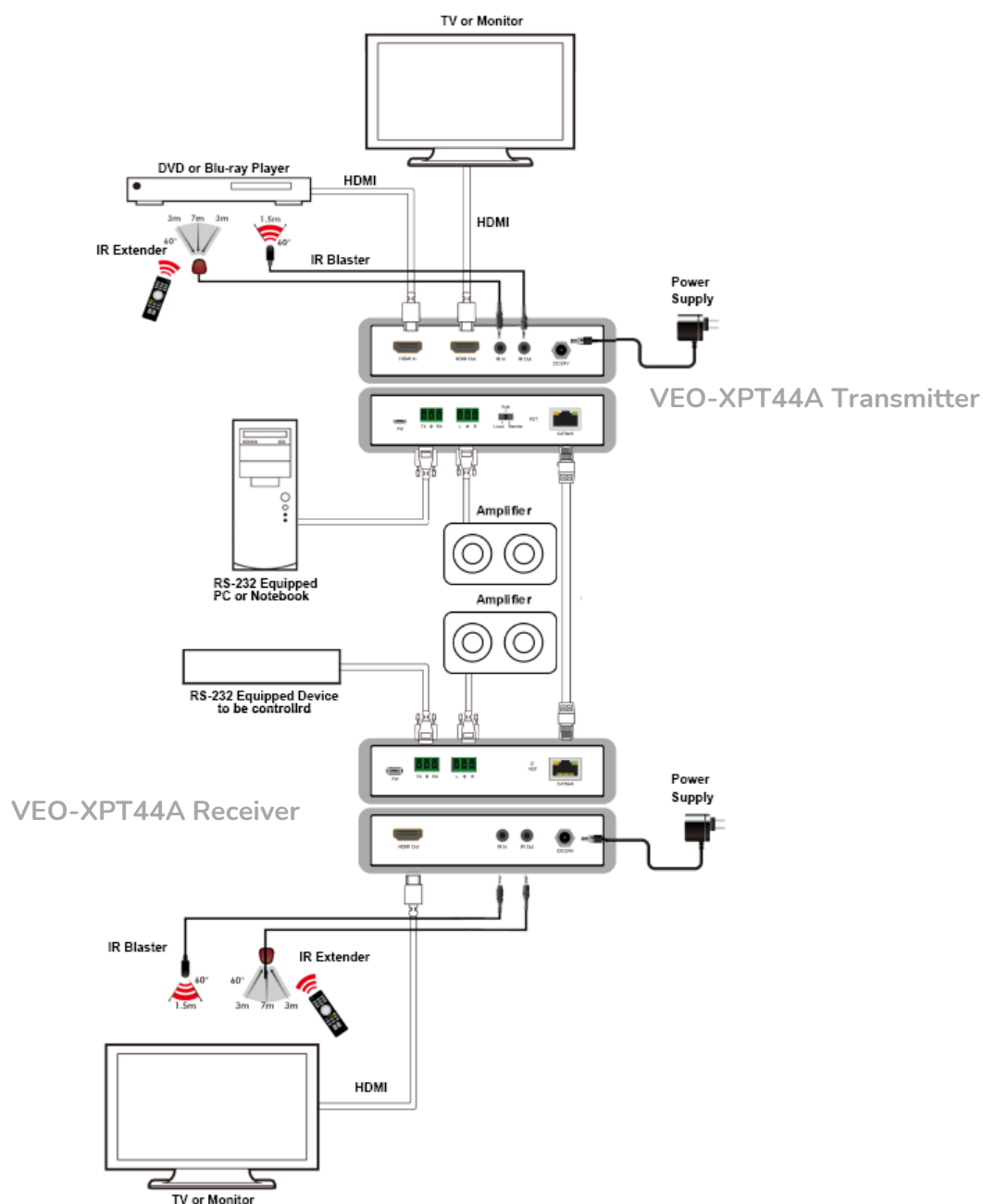
See Device Connection Diagram on next page.

1. **HDMI signal sources such as Blue Ray Player, STB, etc:** connect devices to the HDMI input of VEO-XPT44A transmitter.
2. **HDMI Display devices such as a 4K or Full HD display or projector:** connect devices to the HDMI outputs of VEO-XPT44A transmitter/receiver.
3. **IR Blaster:** connect it to the IR-Out port of VEO-XPT44A transmitter and/or receiver
4. **IR Receiver:** connect it to the IR-In port of VEO-XPT44A transmitter and/or receiver.



5. **RS-232 Source and Endpoint devices (such as PC, Serial Controller, etc.):** connect to Euroblock RS-232 ports.
6. **Amplifiers or Audio devices:** connect to Audio ports of VEO-XPT44A transmitter and/or receiver.
7. **Connecting Transmitter & Receiver:** connect a CAT. 5e/6a/7 cable from RJ45 output of transmitter to RJ45 input of receiver
8. **Power on:** connect the 24VDC power supply to the VEO-XPT44A transmitter or receiver. Please note that only one of them needs to be plugged into the mains socket and both will work.

Note: Please insert/extract the HDMI cables gently



8. MECHANICAL DIAGRAM



9. TECHNICAL SPECIFICATIONS

VEO-XPT44A

Video Performances	
Supported Resolutions	Up to 4Kx2K@60Hz
Colour Space	RGB, YCbCr
Chroma Subsampling	4:4:4, 4:2:2, 4:2:0
Colour Depth	8-bit, 10-bit, 12-bit, 16-bit only @4K30
HDR	HDR10
Signal Bandwidth	18 Gbps
HDCP	2.2 compliant
Video Connectors	Transmitter: - Input: Type-A Female HDMI - Output: Type-A Female HDMI Receiver: - 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	Up to 24-bit
Frequency Response	20Hz–20KHz, ±3dB
Audio Output Connectors	1 x 3pin Euroblock for Stereo Unbalanced Output (PCM 2.0) both for TRANSMITTER and RECEIVER
Control	
EDID mode	3-positions EDID mode selector
LED indication	Green LED: HDbaseT connection OK Orange LED flashing: HDCP negotiation Orange LED fixed: HDCP encryption
General	
HDMI Distance	up to 10 meters / 33 ft with Ecler VEO cables
Cat.5e/6 Distance	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
Environmental	
Operation Temperature	-10 to +50°C (14 to +122 °F)
Humidity	5 - 90% RH (no condensation)
Power Supply	
Mains voltage	AC 100V ~ 240V 50/60Hz Output: DC 24V---1A
Rated power consumption	Max 12W
Mechanical	
Dimensions	154,4mm × 78,3mm × 20mm (6.08"x 3.08"x 0.79")
Weight	688g / 1.52lbs (Pair)

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.