



AU-11SA-4K

De-embed Audio from HDMI (7.1)
(4K Resolution support)



OPERATION MANUAL

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SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply.

Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

REVISION HISTORY

VERSION NO.	DATE	SUMMARY OF CHANGE
v1.00	22/10/13	First release

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1. INTRODUCTION

The AU-11SA-4K is an advanced solution for HDMI to HDMI repeating with Audio de-embedding. Its compatible with v1.4 HDMI specifications, a cutting edge technology which defines the transfer of Ultra High video resolutions up to 4K, 3D signals, and deep colour (12 bit) video with a high bandwidth of up to 3.00Gbps per channel. Connect to source and display (HDMI), select the required audio format & output your audio format to your amplifier. This device has advanced firmware allowing audio to be de-embedded without the need to connect the HDMI display (no sink-end required).

2. APPLICATIONS

- /// Play a game console on monitor lacking audio output by connecting a separate audio system
- /// Extend your audio signal
- /// Audio extraction for non-HDMI AV receivers or wider audio systems
- /// De-embedding of HDMI digital audio to optical digital or analogue outputs
- /// De-embed HDMI multi-channel audio for use with non-HDMI equipped devices such as an AV Receiver

3. PACKAGE CONTENTS

- /// 1x AU-11SA-4K
- /// 1x 5V Power Adaptor
- /// Operation Manual

4. SYSTEM REQUIREMENTS

Source equipment such as a Blu-ray player or games console and display (TV/monitor) and amplifier/active speakers with suitable connection cables.

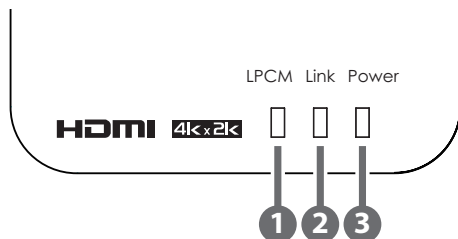
5. FEATURES

- /// HDMI audio de-embedder with built in repeater
- /// Compliant with v1.4 HDMI, HDCP 1.1 and DVI 1.1 standards
- /// Supports un-compressed digital LPCM 7.1, 5.1 or 2 channels and compressed digital Bitstream (Dolby TrueHD, Dolby Digital Plus, and DTS-HD Master Audio) through HDMI input and output ports
- /// Output resolution follows input resolution. Video pass through, no scaling
- /// HDMI signal amplification and equalisation supporting HDMI cable distance of 10m either side of the device at 1080p.
- /// Supports LPCM 7.1, 5.1 or 2 channel output through multichannel analogue output ports
- /// Supports digital Dolby 5.1/2 and LPCM 2 channels output through optical output
- /// Supports CEC bypass
- /// Supports 3D signals and 4K resolutions
- /// Supports xvYCC

Note: For playback of 4kx2k HDMI source signals, a 4Kx2K capable display and High Speed HDMI cables are required.

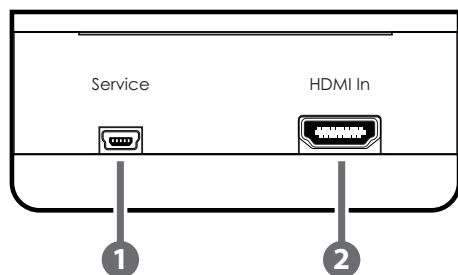
6. OPERATION CONTROLS AND FUNCTIONS

6.1 Top Panel



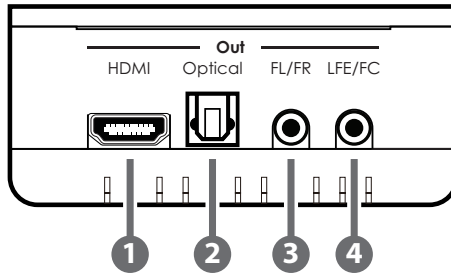
- ❶ **LPCM:** This LED will illuminate to indicate that the output audio EDID is switched to LPCM 7.1CH.
- ❷ **Link:** This LED will illuminate when input source is connected and receiving an HDMI signal.
- ❸ **Power:** This LED will illuminate when the unit is connected to an active power supply.

6.2 Right Panel



- ❶ **Service:** For manufacturer use only.
- ❷ **HDMI IN:** Connect to source equipment such as a Blu-ray player or games console with an HDMI cable.

6.3 Left Panel

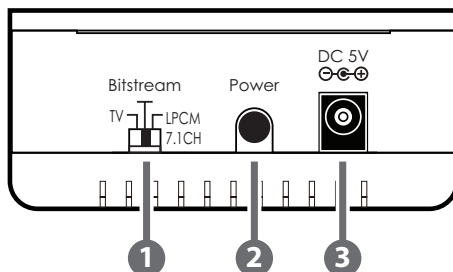


- 1 **HDMI OUT:** Connect the HDMI output port to the HDMI input port of your display with an HDMI cable.

NOTE: For playback of 4kx2k HDMI source signals, a 4Kx2K capable display and High Speed HDMI cables are required. No HDMI output connection is required for analogue or optical audio output.

- 2 **Optical OUT:** Connect to audio equipment such as an amplifier or Hi-Fi system with an optical cable for digital audio output. Supports up to bitstream 5.1CH and LPCM 2CH audio.
- 3 **FL/FR OUT:** Connect to audio equipment such as an amplifier or active speakers with 3.5mm mini-jack cable for front left and front right analogue audio output.
- 4 **LFE/FC OUT:** Connect to audio equipment such as an amplifier or active speakers with 3.5mm mini-jack cable for low-frequency effects/subwoofer and front center analogue audio outputs.

6.4 Front Panel



1 TV/Bitstream/LPCM 7.1CH:

This switch allows users to select which audio EDID settings are used for audio output.

TV Mode: Switch to TV mode to use the EDID settings of the device connected to the HDMI output port.

Bitstream Mode: Switch to set the HDMI source device to output the audio in bitstream mode (supports up to 5.1 channels of compressed audio).

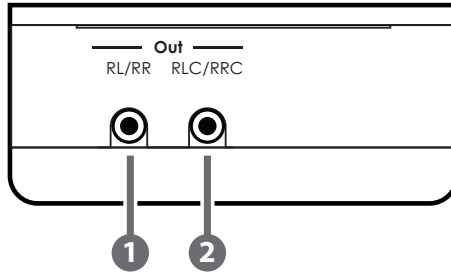
LPCM 7.1CH Mode: Switch to set the HDMI source to output up to 7.1 Channels of LPCM audio.

Note: Depending on the input audio format, the unit may not output audio through all output ports. For Example, there will be no audio output from the optical output port when the input audio format is LPCM 7.1.

2 Power: Press to turn on the device or to set it into standby mode.

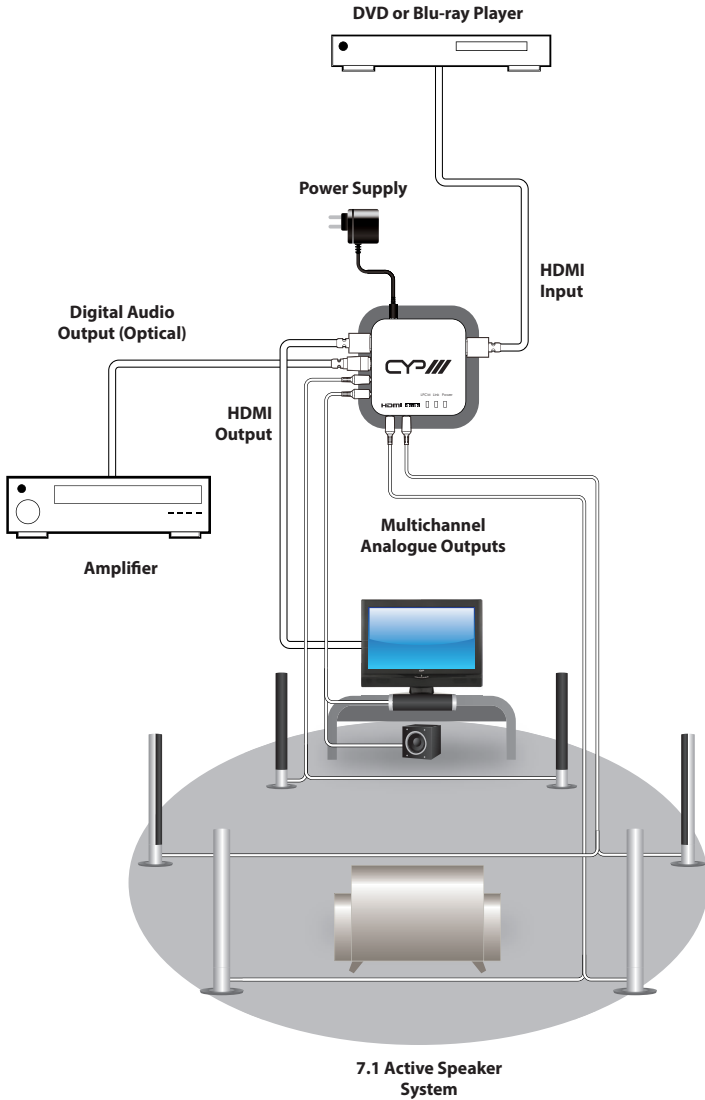
3 DC 5V: Plug the 5V DC power supply into the unit and connect the adaptor to AC wall outlet.

6.5 Rear Panel



- 1 RL/RR:** Connect to audio equipment such as an amplifier or active speakers with 3.5mm mini-jack cable for rear left and rear right analogue audio outputs.
- 2 RLC/RRC:** Connect to audio equipment such as an amplifier or active speakers with 3.5mm mini-jack cable for rear left center and rear right center analogue audio outputs.

7. CONNECTION DIAGRAM



8. SPECIFICATIONS

Video Bandwidth	300 Mbps / 10.2 Gbps
Input Ports	1×HDMI, 1×Mini-USB (service only)
Output Ports	1×HDMI, 1×Optical, 4×3.5mm mini-jack
HDMI Audio Sampling Rate	Up to 192 kHz
Optical S/PDIF Audio Sampling Rate	Up to 192 kHz
HDMI Audio Format	LPCM 2/5.1/7.1CH, Dolby Digital 2~5.1CH, DTS 2~5.1CH, Dolby Digital Plus, Dolby TrueHD, and DTS-HD Master Audio
Optical Audio Format	LPCM 2CH, Dolby Digital 2~5.1CH, and DTS 2~5.1CH
L/R Audio Format	4×Mini-jack Output Format 7.1 CH Analogue Audio
Power Supply	5V / 1.2A DC (US/EU standards, CE/FCC/UL certified)
ESD Protection	Human body model: ±8kV (air-gap discharge) ±6kV (contact discharge)
Dimensions	85 mm (W) x 87.5 mm (D) x 34 mm (H)
Weight	102 g
Chassis Material	Plastic
Colour	White
Operating Temperature	0 °C~40 °C / 32 °F~104 °F
Storage Temperature	-20 °C ~ 60 °C / -4 °F ~ 140 °F
Relative Humidity	20 ~ 90% RH (non-condensing)
Power Consumption	2.37 W

8.1 Supported Audio Formats

Output Audio Mode	HDMI	Optical	L/R
2CH	✓	✓	✓
LPCM 5.1	✓	✓	✓
LPCM 7.1	✓		✓
Bitstream 5.1	✓	✓	
Bitstream 7.1	✓		

9. ACRONYMS

ACRONYM	COMPLETE TERM
4Kx2K	3840 x 2160 / 4096 x 2160
DTS	Digital Theater System
EDID	Extended Display Identification Data
HDCP	High-bandwidth Digital Content Protection
HDMI	High-Definition Multimedia Interface
HDTV	High-Definition Television



CYP (UK) Ltd., Unit 7, Shepperton Business Park, Govett Avenue, Shepperton,
Middlesex, TW17 8BA

Tel: +44 (0) 20 3137 9180 | Fax: +44 (0) 20 3137 6279

Email: sales@cypeurope.com

www.cypeurope.com

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