

# **AU-11CD-4K**

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



Operation Manual

#### 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 DD/MM/YY	SUMMARY OF CHANGE
RDV1	10/06/13	Preliminary release

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#### 1. INTRODUCTION

The HDMI<sup>TM</sup> 4Kx2K Audio Extractor allows you to extract audio signals from your HDMI source. When connecting to a TV or display you don't always get the best audio, or in the case of a PC monitor, no audio at all. So with this Audio Extractor you can take your original HDMI audio signal and convert it to digital optical or analog stereo L/R audio. This means that you can output your audio signal to external speakers or extend your audio signal pathway. Meanwhile, when connecting a 4Kx2K display a true video will be performed without down grading the resolution.

#### 2. APPLICATIONS

- Game entertainment on monitor
- Extend your audio signal
- Audio extraction for non-HDMI AV receivers or wider audio systems

#### 3. PACKAGE CONTENTS

- HDMI 4K x 2K Audio Extractor
- 5V Power adaptor
- Operation Manual

#### 4. SYSTEM REQUIREMENTS

Input source equipment such as Blu-ray/PS3 player and output display (TV/monitor) and amplifier/active speakers with connection cables.

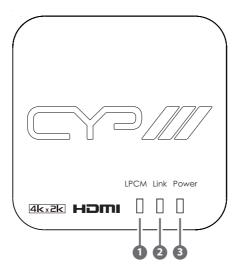
#### 5. FEATURES

- Compliant with HDMI, HDCP 1.2 and DVI 1.0
- Supports HDMI audio sampling rate up to 192 kHz
- Supports Optical S/PDIF audio sampling rate up to 192 kHz
- HDMI supports high-bit-rate (HBR) audio
- No HDMI output connection is required to receive audio at the analog and optical outputs
- Supports analog stereo L/R and Optical S/PDIF audio outputs
- Maximum input and output HDMI cable length can run up to 15 meters at 1080p at 8-bit resolution
- Supports built-in audio EDID switching among LPCM 2CH, TV (external) EDID, and Bitstream audio
- Supports 4kx2k resolution and 3D signal

**Note:** When displaying HDMI 4kx2k signal, equivalent source signal, output display and HDMI cables are required in order to secure the best image display.

## 6. OPERATION CONTROLS AND FUNCTIONS

# 6.1 Top Panel



# 1 LPCM:

This LED will illuminate when the output audio EDID is switch to LPCM 2CH.

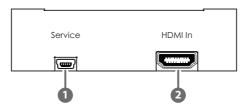
# 2 Link:

This LED will illuminate when input source is connected with HDMI signal.

### B Power:

This LED will illuminate when the unit is connected with power supply.

### 6.2 Right Panel



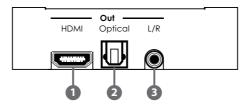
#### Service:

This port is reserved for firmware update only.

#### 2 HDMI IN:

This slot is to connect with source equipment such as Blu-ray/PS3 player with HDMI signal sending.

#### 6.3 Left Panel



### 1 HDMI OUT:

Connect to the display (TV/monitor) with an HDMI cable for video and audio signal output. For 4Kx2K or 3D image display, an equivalent standard display is required. No HDMI output connection is required to send audio through the analog and optical outputs.

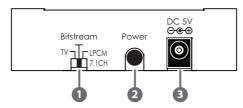
# 2 Optical OUT:

Connect to audio equipment such as an amplifier or Hi-Fi system with an optical cable for digital audio output. Supports up to bitstream audio 5.1CH and LPCM 2CH.

# **3** L/R OUT:

Connect to audio equipment such as an amplifier or active speakers with 3.5mm phone jack cable for stereo audio outputs.

#### 6.4 Front Panel



#### 1 TV/Bitstream/LPCM 7.1CH:

This switch allows users to select the source's audio EDID.

TV Mode: Switch to TV mode to use the HDMI output port's EDID. Bitstream Mode: Switch to Bitstream mode to use the HDMI output port's EDID, the audio supports up to compressed audio 5.1 channels.

LPCM 2CH Mode: Switch to LPCM 2CH mode to use HDMI output port's EDID, the audio supports up to LPCM 2 channels.

**Note:** Depending on the input audio format, the unit may not output audio through all output port. For Example, the L/R analog output port will have no audio when the input audio format is other than LPCM 2CH.

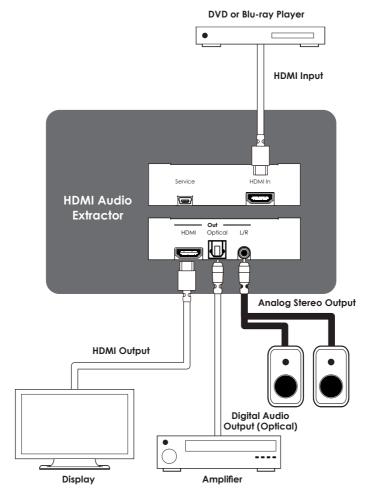
#### Power:

Press this button to switch ON the device or to set it into standby mode.

# **B** DC 5V:

Plug with 5V DC power adaptor from the AC wall outlet for power supply.

# 7. CONNECTION DIAGRAM



#### 8. SPECIFICATIONS

Video Bandwidth 300Mbps / 10.2Gbps

**Input Ports** 1 x HDMI,

1 x Mini-USB (service only)

Output Ports 1 x HDMI,

1 x Optical,

 $1 \times L/R(3.5 \text{mm Phone Jack})$ 

**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 Analog Stereo 2 CH

**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 (mm)** 85 (W)  $\times$  87.5 (D)  $\times$  34(H)

**Weight (g)** 102

Chassis Material Plastic
Silkscreen Color White

Operating Temperature  $0^{\circ}\text{C} \sim 40^{\circ}\text{C} / 32^{\circ}\text{F} \sim 104^{\circ}\text{F}$ 

Storage Temperature  $-20^{\circ}\text{C} \sim 60^{\circ}\text{C} / -4^{\circ}\text{F} \sim 140^{\circ}\text{F}$ Relative Humidity  $20 \sim 90\%$  RH (non-condensing)

Power Consumption 2.2W

# 8.1 Audio Supports Chart

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

# 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



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