



CPRO-11SE8

HDMI 4Kx2K LPCM 7.1 Extractor



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 DD/MM/YY	SUMMARY OF CHANGE
RDV1	10/06/13	Preliminary release
VS1	30/08/13	Updated text/diagrams

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1. INTRODUCTION

The HDMI™ 4K×2K LPCM Extractor allows you to de-embed the audio signal from an HDMI source and output it. With this Audio Extractor you can take your original HDMI audio signal and convert it to digital optical or multichannel audio, allowing you to output your audio signal to an external multichannel audio system or to extend your audio signal pathway. It also has the added benefit of 4K×2K and 3D support, allowing full resolution video and eliminating the need to downscale the image.

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 analog outputs
- De-embed HDMI multi-channel audio for use with non-HDMI equipped devices such as an AV Receiver

3. PACKAGE CONTENTS

- HDMI 4K×2K LPCM 7.1 Extractor
- 5V/1.2A DC Power Adaptor
- Operation Manual

4. SYSTEM REQUIREMENTS

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

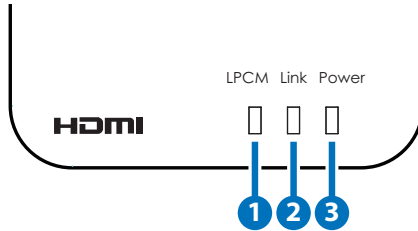
5. FEATURES

- Compliant with HDMI, HDCP 1.2 and DVI 1.0
- Supports HDMI audio sampling rates up to 192kHz
- Supports Optical (S/PDIF) digital audio sampling rates up to 192kHz
- HDMI supports high-bit-rate (HBR) audio
- No HDMI output connection is required for analog or optical audio output
- Supports 4 mini-jack sockets for analog multichannel audio output
- Supports maximum input and output HDMI cable lengths of up to 15 meters each at 1080p/8-bit resolution or 10 meters each at 1080p/12-bit or 4K×2K resolution
- Supports built-in audio EDID switching between LPCM 7.1CH, TV (external) EDID or Bitstream audio
- Supports CEC bypass function
- Supports 4K×2K resolution and 3D signals

Note: For playback of 4K×2K/3D HDMI source signals, a 4K×2K/3D capable display and High Speed HDMI cables are required.

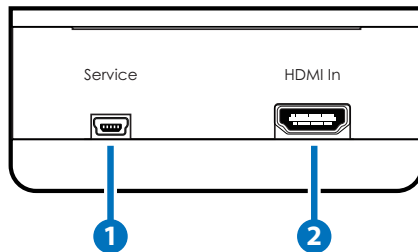
6. OPERATION CONTROLS AND FUNCTIONS

6.1 Top Panel



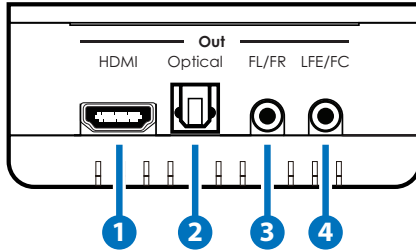
- 1 LPCM LED:** This LED will illuminate to indicate that the output audio EDID is switched to LPCM 7.1CH.
- 2 Link LED:** This LED will illuminate when input source is connected and receiving an HDMI signal.
- 3 Power LED:** This LED will illuminate when the unit is connected to an active power supply.

6.2 Right Panel



- 1 Service:** Manufacturer use only.
- 2 HDMI In:** Connect to source device such as a Blu-ray player or games console with an HDMI cable.

6.3 Left Panel

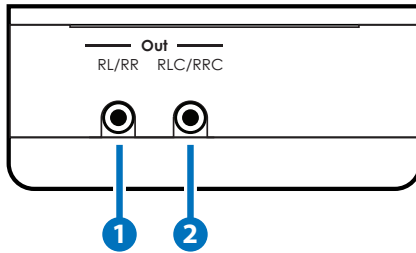


- 1 HDMI Out:** Connect the HDMI output port to the HDMI input port of your display with an HDMI cable.

Note:

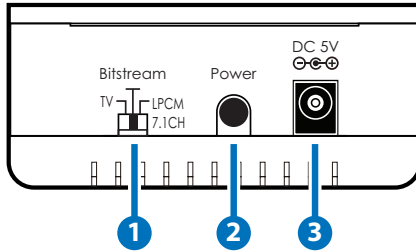
1. For playback of 4K×2K/3D HDMI source signals, a 4K×2K/3D capable display and High Speed HDMI cables are required.
 2. No HDMI output connection is required for analog or optical audio output.
- 2 Optical Out:** Connect to audio equipment such as an amplifier or Hi-Fi system with an optical cable for 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 analog 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 analog audio outputs.

6.4 Front Panel



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

6.5 Rear Panel



- 1 Audio EDID Switch:** This switch allows users to select which audio EDID settings are used for audio output.

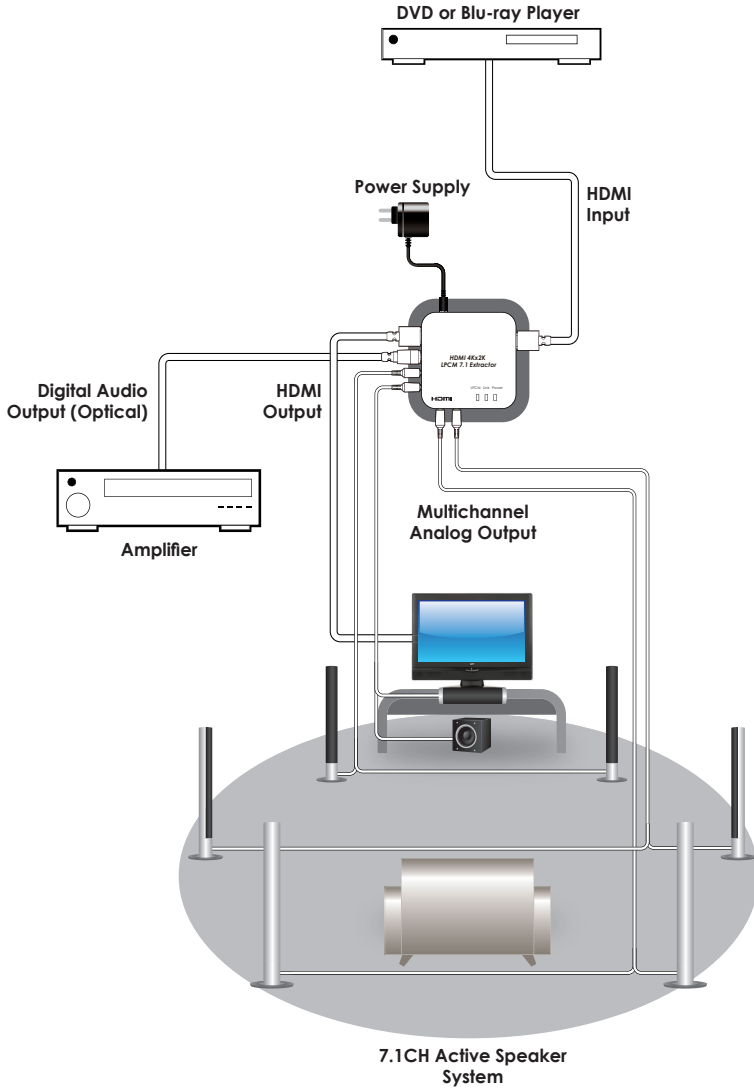
TV Mode: Switch to TV mode to use the EDID settings of the display connected to the HDMI output port.

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 device 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 (See Section 8.2). For Example, there will be no audio output from the optical output port when the input audio format is LPCM 7.1.
- 2 Power Button:** Press to turn on the unit 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.

7. CONNECTION DIAGRAM



8. SPECIFICATIONS

8.1 Technical Specifications

Video Bandwidth	300 Mbps/10.2 Gbps
Input Ports	1×HDMI, 1×Mini-USB (Service only)
Output Ports	1×HDMI, 1×Optical, 4×3.5 mm Mini-jack
Audio Sampling Rates	HDMI: Up to 192 kHz S/PDIF (Optical): Up to 192 kHz
HDMI Audio Formats	LPCM 2/5.1/7.1CH, Dolby Digital 2~5.1CH, DTS 2~5.1CH, Dolby Digital Plus, Dolby TrueHD & DTS-HD Master Audio
Optical Audio Formats	LPCM 2CH, Dolby Digital 2~5.1CH & DTS 2~5.1CH
Analog Audio Formats	Analog Stereo 7.1CH
HDMI Cable I/O Distance	15 m (1080p@8-bit), 10 m (1080p@12-bit), 10 m (4K×2K)
Power Supply	5V/1.2A DC (US/EU standards, CE/FCC/UL certified)
ESD Protection	Human body model: ±8 kV (air-gap discharge) ±6 kV (contact discharge)
Dimensions	85 mm (W)×87.5 mm (D)×34 mm (H)
Weight	102 g
Chassis Material	Plastic
Color	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



8.2 Supported Audio Formats

FORMAT \ OUTPUT	HDMI	Optical	Analog
LPCM 2CH	✓	✓	✓
LPCM 5.1CH	✓	✓	✓
LPCM 7.1CH	✓	-	✓
Bitstream 5.1CH	✓	✓	-
Bitstream 7.1CH	✓	-	-

9. ACRONYMS

ACRONYM	COMPLETE TERM
4K×2K	Ultra HD (3840×2160/4096×2160)
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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