



ethereal

# CS-HDMABOD

HDMI 18Gbps Audio Extractor  
with Audio Downmixing



User Manual

VER 1.1

## **Thank you for purchasing this product**

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

**Surge protection device recommended** This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection system is highly recommended in order to protect and extend the life of your equipment.

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## 1. Introduction

The HDMI 18Gbps Audio Extractor can extract audio signals from any HDMI compliant source to digital optical or analog stereo L/R audio outputs. For maximum flexibility, this audio extractor also supports Bitstream audio down-mix to analog stereo output and keeps optical and HDMI out audio pass-through. Both input and output HDMI support video resolutions up to 4K2K@50/60Hz (YUV444). It supports 10 bit HDR (High Dynamic Range) pass through and HDMI high resolution digital audio formats bypass, LPCM 2CH, Dolby TrueHD, Dolby Digital Plus, Dolby Atmos and DTS-HD Master Audio, audio sampling rate up to 192 kHz. HDCP 2.2 and CEC bypass are supported.



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## 2. Features

- HDMI 2.0b (18Gbps), HDCP 2.2 and DVI compliant
- Video resolutions up to 4K2K@50/60Hz (YUV444)
- Extract HDMI audio to multi-channel optical (SPDIF) or L/R analog audio
- HDMI Pass-through audio input to HDMI and optical audio output
- Support bitstream audio down-mix to L/R analog output
- Optical audio supports LPCM 2CH, Dolby Digital 2/5.1CH, DTS 2/5.1CH
- Support HDMI High Bit Rate(HBR) audio pass through
- Audio sample rates up to 96kHz
- 10bits HDR (High Dynamic Range) pass through
- Support CEC pass-through

### 3. Package Contents

1. 1× HDMI 18Gbps Audio Extractor
2. 1× 5V/1A Power Adapter
3. 1× User Manual

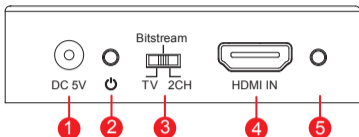
### 4. Specifications

Technical	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2 and HDCP 1.4
Video Bandwidth	18Gbps
Video Resolutions	Up to 4K2K@50/60Hz(YUV4:4:4), 4K2K@30Hz, 1080P@120Hz, and 1080P 3D@60Hz
Color Space	RGB, YCbCr 4:4:4, YCbCr 4:2:2
Color Depth	10-bit, 12-bit
HDMI Audio Formats (Pass-through)	LPCM 2/5.1/7.1CH, Dolby Digital, DTS 5.1, Dolby Digital+, Dolby TrueHD, DTS-HD Master Audio, Dolby Atmos, DTS:X
Optical Audio Formats	LPCM 2CH, Dolby Digital 2/5.1 CH, DTS 2/5.1CH
L/R Audio Formats	Analog Stereo 2CH
ESD Protection	Human body model — ±8kV (air-gap discharge) & ±4kV (contact discharge)

<b>Connections</b>	
Inputs	1x HDMI Type A [19-pin female]
Outputs	1x HDMI Type A [19-pin female] 1x L/R Audio Out [RCA] 1x Optical Out [S/PDIF]
<b>Mechanical</b>	
Housing	Metal Enclosure
Color	Black
Dimensions	73.5mm[W] x 60.7mm[D] x 20mm[H]
Weight	135g
Power Supply	Input: AC100 - 240V 50/60Hz Output: DC 5V/1A (US/EU standards, CE/FCC/UL certified)
Power Consumption	1.25W (Max)
Operation Temperature	32 - 104°F / 0 - 40°C
Storage temperature	-4 - 140°F / -20 - 60°C
Relative Humidity	20 - 90% RH (no condensation)

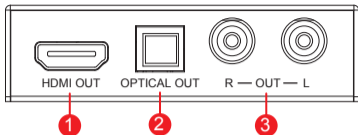
## 5. Operation Controls and Functions

### 5.1 Front Panel



Number	Name	Function Description
1	DC 5V	Connect 5V/1A adapter to AC outlet for power supply.
2	Power LED	System power indicator.
3	TV/Bitstream/2CH	Switch allows to select audio format according to Copy TV, Bitstream or 2CH. TV: Copy EDID from TV. Bitstream: Multi channel audio up to six channels. 2CH: 2 channel Stereo PCM.
4	HDMI IN	HDMI video input.
5	Status LED	Red solid: PCM decoder or No signal Red blinking: Dolby decoder Green blinking: DTS decoder

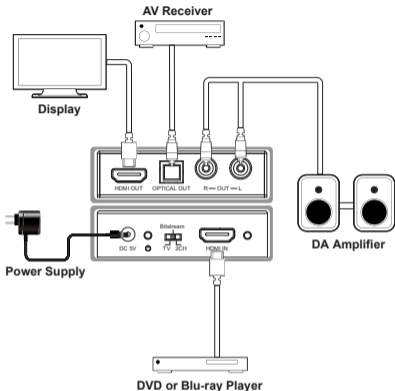
## 5.2 Rear Panel



Number	Name	Function Description
1	HDMI OUT	HDMI output for display connectivity.
2	OPTICAL Out	Toslink digital audio output (mirrors HDMI).
3	R/L OUT	Stereo RCA analog audio output.



## 6. Application Example



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