

18Gbps HDMI Audio Decoder

Dr.HD CA 157 HHA



User Manual

VER 1.0

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 systems is highly recommended in order to protect and extend the life of your equipment.

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1. Introduction

This 18Gbps HDMI Audio Decoder with ARC/eARC function supports Dolby® Digital/DTS® Stereo Audio Decoding. This is used for bypassing bitstream audio over HDMI and down-mixing to a secondary output for 2Ch audio systems. This unit can manage standard Dolby Digital & DTS formats up to 7.1 and output the audio as stereo (LPCM 2.0) over HDMI, S/PDIF (optical and coaxial). Audio can also be set to be managed from eARC/ARC.

2. Features

- ☆ HDMI 2.0b and HDCP 2.2 / 1.x compliant
- ☆ Video resolution up to 4K2K@60Hz with 24bit RGB/YCbCr 4:4:4
- ☆ Support 18Gbps video bandwidth
- ☆ VESA format up to QSXGA@60Hz
- ☆ Support HDR, HDR10, HDR10+, Dolby Vision and HLG pass-through
- ☆ HDMI audio formats:
 - HDMI OUT1: PCM 2.0, 5.1 & 7.1, Dolby Digital, Dolby digital plus, Dolby True-HD, DTS surround, DTS ES, DTS HD Master
 - HDMI OUT2 / Coaxial / Toslink / RCA: PCM/DOLBY/DTS 7.1 Down-mix to PCM2.0
- ☆ Down-scaling for mixed systems
- ☆ Down-mix on L/R "RCA" Cables, Digital Coax, Toslink and HDMI
- ☆ Support eARC/ARC function and CEC control
- ☆ Advanced EDID management (Set EDID via DIP switch)

3. Package Contents

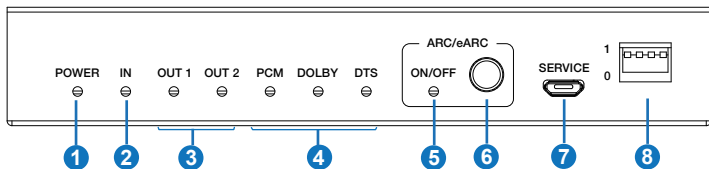
- ① 1 × 18Gbps HDMI Audio Decoder
- ② 1 × 12V/1A Power Supply
- ③ 2 × Mounting Ears
- ④ 1 × User Manual

4. Specifications

Technical	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2 / 1.x
Video Bandwidth	18 Gbps
Video Resolution	Up to 4K2K@60Hz
Color Space	RGB 4:4:4, YCbCr 4:4:4 / 4:2:2 / 4:2:0
Color Depth	8-bit, 10-bit, 12-bit (1080p@60Hz) 8-bit (4K2K@60Hz YUV4:4:4) 8-bit, 10-bit, 12-bit (4K2K@60Hz YCbCr 4:2:2 / 4:2:0)
Audio Formats	HDMI OUT1: PCM 2.0, 5.1 & 7.1, Dolby Digital, Dolby digital plus, Dolby True-HD, DTS surround, DTS ES, DTS HD Master HDMI OUT2 / Coaxial / Toslink / RCA: PCM/DOLBY/DTS 7.1 Down-mix to PCM2.0
HDR	Support HDR 10, HDR 10+, HLD and Dolby vision
ESD Protection	Human-body Model: $\pm 8\text{kV}$ (Air-gap discharge), $\pm 4\text{kV}$ (Contact discharge)
Connection	
Input	1×HDMI Type A [19-pin female]
Output	2×HDMI Type A [19-pin female] 1 x Digital Coaxial 1×TOSLINK OUT 1×L/R OUT [RCA red & white]
Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	146mm(W) × 70.5mm(D) × 25mm(H)
Weight	322g
Power Supply	Input: AC90~260V 50/60Hz Output: DC 12V/1A(US/EU Standard, CE/FCC/UL Certified)
Power Consumption	2.52W (Max)
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)

5. Operation Controls and Functions

5.1 Front Panel

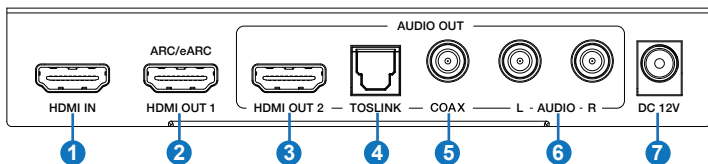


No.	Name	Function Description
1	POWER LED	Red LED will be on when the product is powered on.
2	IN LED	HDMI signal input indicator. LED will be on when there is HDMI signal input.
3	OUT1/2 LED	HDMI OUT1/2 connection indicator. OUT1/2 LED will be on when the HDMI OUT1/2 port is connected to active TV.
4	PCM/DOLBY/DTS LED	When PCM/DOLBY/DTS is decoding, the corresponding LED will be on.
5	ARC/eARC LED	ARC/eARC indicator status: Light on: ARC/eARC function is turned on, HDMI OUT2 / Coaxial / Toslink / RCA port output the down-mixed ARC/eARC audio from the HDMI OUT1 port. Light flashing: ARC/eARC function is turned on, but there is no connection. Light off: ARC/eARC function is turned off, HDMI OUT2/ Coaxial / Toslink / RCA port output the down-mixed audio from the HDMI IN port.
6	ARC/eARC Button	Press the button to turn on/off ARC/eARC function.
7	SERVICE	Firmware update port.
8	EDID DIP Switch	Use the switch to set EDID settings, as shown in the figure below.

Switch Position	1	2	3	4
Function	HDMI INPUT EDID	HDMI OUT1 Audio Down-mix	HDMI OUT1 Down-scaler	HDMI OUT2 Down-scaler
Logical Definition	1: copy OUT1 0: Default EDID (4K2K 2CH)	1: Bypass audio bitstream 0: down-mix 2ch	1: Video Bypass 0: Down-scaler	1: Video Bypass 0: Down-scaler

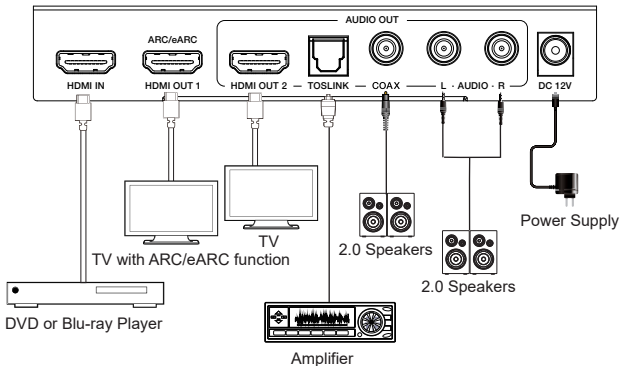
Note: The ARC/eARC function needs to be turned off when position 2 is switched to 0 (down-mix 2CH).

5.2 Rear Panel



No.	Name	Function Description
1	HDMI IN	HDMI signal input port, connect to HDMI source device such as DVD, PS4 or Set-top Box with HDMI cable.
2	HDMI OUT1	HDMI output 1 port, connect TV with ARC/eARC function.
3	HDMI OUT2	HDMI output 2 port. When ARC/eARC function is turned off, it outputs the signal from HDMI IN port; When ARC/eARC function is turned on, it can only output the audio of 720P black screen signal.
4	TOSLINK	Fiber optical audio output port.
5	COAX	Coaxial audio output port.
6	L-AUDIO-R	Analog audio output port.
7	DC 12V	DC 12V power supply port.

6. Application Example



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