ADERTECH

VC-HA-U4H



18Gbps UHD HDMI Audio Embedder
User Manual Version 1.1

Thank you for choosing ADERTECH products

We have done everything possible to ensure that our equipment pleases our consumers. When solving any problems in the operation and connection of ADERTECH equipment, it is best to contact authorized companies and specialists who work with our equipment. Our equipment is intended for professional use, so you have professional skills in using such equipment. ADERTECH is a manufacturer of a wide range of multimedia solutions.

Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lighting strikes, etc. Use of surge protection systems is highly recommended in order to protect andextend the life of your equipment.

Table of Contents

1. Introduction..... 1
2. Features..... 1
3. Package Contents..... 1
4. Specification..... 2
5. Operation Controls and Functions..... 3
    5.1. Front Panel..... 3
    5.2. Rear Panel..... 4
6. Application Example..... 5

1. Introduction

The HDMI 18Gbps Audio Embedder could embed audio signals from digital optical or analog stereo Line audio to HDMI output. Further, both input and output HDMI support video resolution up to 4K2K@50/60Hz (YUV444). It supports 10bits 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.

2. Features

☆ Embeds multi-channel optical (SPDIF) or Line analog audio to HDMI output

☆ Optical audio supports LPCM 2CH, Dobly Digital 2/5.1CH, DTS 2/5.1CH

☆ Analog audio supports PCM2.0

☆ HDMI 2.0b (18Gbps), HDCP 2.2 and DVI 1.0 compliant

☆ Video resolutions up to 4K2K@50/60Hz (YUV444)

☆ Supports HDMI High Bit Rate(HBR) audio pass through

☆ 10bits HDR (High Dynamic Range) pass through

☆ Supports CEC bypass

3. Package Contents

- 1 x HDMI 18Gbps Audio Embedder
- 1 x 5V/1A Power Adapter
- 1 x User Manual

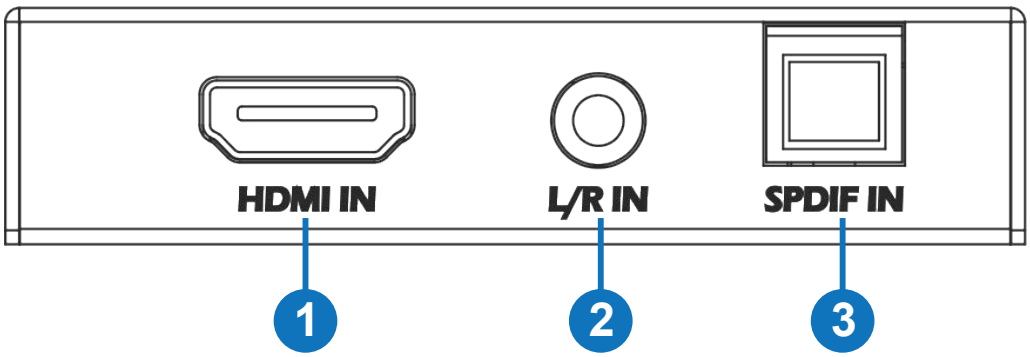
4. Specifications

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 1080P3D@60Hz
Color Space	RGB, YCbCr 4:4:4, YCbCr 4:2:0
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 2/5.1CH, DTS 2/5.1CH
L/R Audio Formats	Analog Stereo 2CH
ESD Protection	Human body model — ±8kV (air-gap discharge) & ±4kV (contact discharge)
Connections	
Inputs	1x HDMI Type A [19-pin female] 1x Line In [3.5mm Stereo Mini-jack] 1x Optical In [S/PDIF]
Outputs	1x HDMI Type A [19-pin female]
Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	73.5mm [W] x 60.7mm [D] x 17mm [H]
Weight	122g
Power Supply	Input: AC100 - 240V 50/60Hz Output: DC 5V/1A (US/EU standards, CE/FCC/UL certified)

Power Consumption	1.25W
Operation Temperature	32 - 104°F / 0 - 40°C
Storage temperature	-4 - 140°F / -20 - 60°C
Relative Humidity	20 - 90% RH (no condensation)

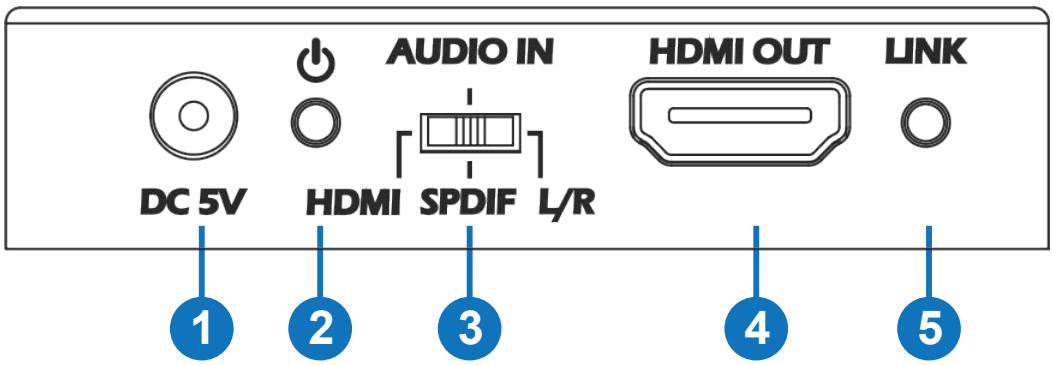
5. Operation Controls and Functions

5.1 Front Panel



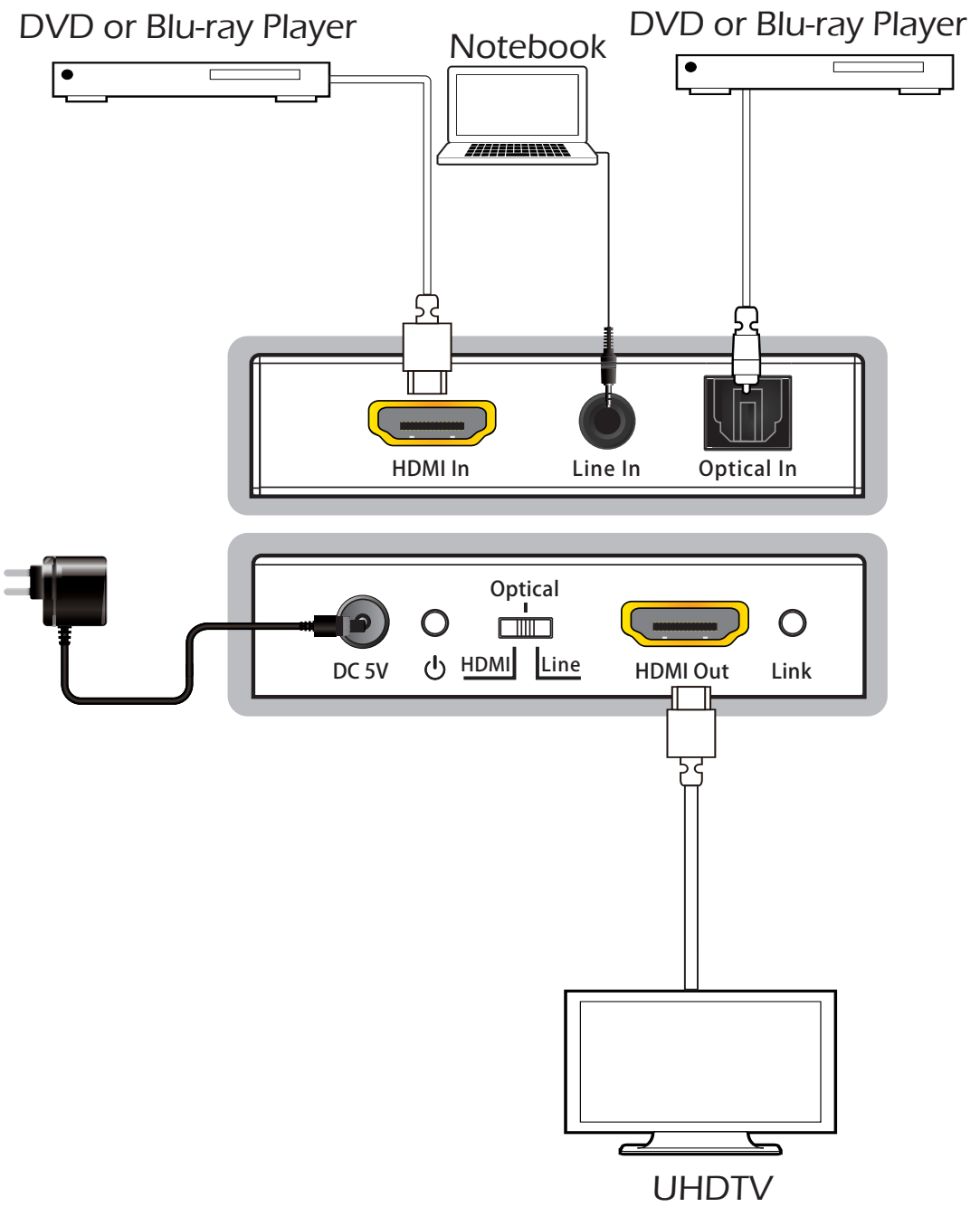
Number	Name	Function description
1	HDMI In	Connect to HDMI source device, such as DVD player or Set top box
2	L/R In	Analog audio input port.
3	SPDIF In	Optical audio input port.

5.2 Rear Panel



Number	Name	Function description
1	DC 5V	Connect 5V/1A adapter to AC wall outlet for power supply.
2	Power LED	System power indicator.
3	HDMI/SPDIF/ L/R	User can select input audio format according to HDMI, SPDIF or L/R. ▪ When the dial switch is dialed to HDMI, the HDMI Out port output audio from HDMI In port input. ▪ When the dial switch is dialed to SPDIF the HDMI Out port output audio from SPDIF In port input. ▪ When the dial switch is dialed to L/R, the HDMI Out port output audio from L/R In port input.
4	HDMI Out	Connect to HDMI display device such as TV/Projector.
5	Link LED	The LED will illuminate when detected HDMI output signal.

6. Application Example



Quality Assurance

We have developed a strict quality assurance process and built a full-fledged testing laboratory. First-class high and low temperature laboratories, reliability and compatibility ensure that every product undergoes rigorous testing from design to delivery and is delivered free of defects.

After-sales service

We have established a complete after-sales warranty service system to respond to customer requirements in real time and quickly solve customer problems.

All trademarks are the property of their respective owners. ADERTECH is not responsible for any errors that may appear in this document. Product, pricing and feature information contained herein is subject to change without notice.

© 2023 ADERTECH Co Ltd.
The ADERTECH logo and associated visual identity are trademarks or registered trademarks of ADERTECH and/or its affiliates.