



AU-1H1DD

HDMI Audio Converter with Dolby® Digital/DTS® Decoder

OPERATION MANUAL

DISCLAIMERS

The information in this manual has been carefully checked and is believed to be accurate. CYP (UK) Ltd assumes no responsibility for any infringements of patents or other rights of third parties which may result from its use.

CYP (UK) Ltd assumes no responsibility for any inaccuracies that may be contained in this document. CYP (UK) Ltd also makes no commitment to update or to keep current the information contained in this document.

CYP (UK) Ltd reserves the right to make improvements to this document and/or product at any time and without notice.

COPYRIGHT NOTICE

No part of this document may be reproduced, transmitted, transcribed, stored in a retrieval system, or any of its part translated into any language or computer file, in any form or by any means—electronic, mechanical, magnetic, optical, chemical, manual, or otherwise—without express written permission and consent from CYP (UK) Ltd.

© Copyright 2011 by CYP (UK) Ltd.

All Rights Reserved.

Version 1.1 August 2011

TRADEMARK ACKNOWLEDGMENTS

All products or service names mentioned in this document may be trademarks of the companies with which they are associated. Manufactured under license from Dolby Laboratories. “Dolby” and the double-D symbol are trademarks of Dolby Laboratories.

Manufactured under license under U.S. Patent Nos: 5,956,674; 5,974,380; 6,487,535 & other U.S. and worldwide patents issued & pending. DTS, the Symbol, & DTS and the Symbol together are registered trademarks & DTS 2.0+Digital Out is a trademark of DTS, Inc. Product includes software. © DTS, Inc. All Rights Reserved.

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	SUMMARY OF CHANGE
v1.00	27/05/15	First release
v1.01	24/06/15	Minor changes to text, resolution table and specifications

CONTENTS

1. Introduction	6
2. Applications	6
3. Package Contents	6
4. System Requirements	6
5. Features.....	7
6. Operation Controls and Functions	8
6.1 Front Panel	8
6.2 Rear Panel.....	9
7. Connection Diagram	10
8. Specifications.....	11
8.1 Technical Specifications	11
8.2 Supported Video Resolutions	12
8.3 Audio Specifications.....	13
8.4 Input Audio to Output Audio Chart..	13
9. Acronyms.....	14

1. INTRODUCTION

The AU-1H1DD is an advanced solution for de-embedding and down-mixing an audio signal from the HDMI input (up to Dolby® Digital and DTS® 2.0+Digital Out). Connect the AU-1H1DD between the source and your display via HDMI, and select 2CH LPCM or bypass. The digital audio outputs can be set to either 2CH LPCM or bypass. The L/R analogue outputs will always output down-mixed stereo (with audio up to Dolby® Digital and DTS® 2.0+Digital Out).

2. APPLICATIONS

- /// Home entertainment installation
- /// Audio extraction & extension
- /// Non-HDMI AV receivers or wider audio systems

3. PACKAGE CONTENTS

- /// HDMI Audio Converter with Dolby® Digital/DTS® 2.0+Digital Out Decoder
- /// 5V/2.6A Power Adaptor
- /// Operation Manual

4. SYSTEM REQUIREMENTS

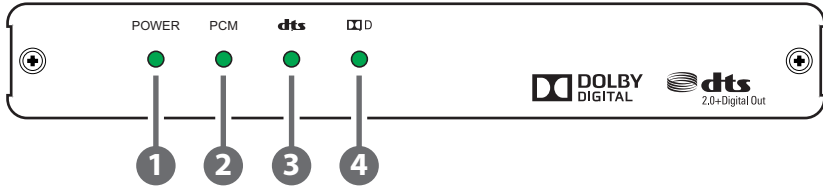
HDMI equipped source device and display (TV/monitor) and/or amplifier/active speakers with connection cables.

5. FEATURES

- /// HDCP 1.4 compliant
- /// Supports resolutions VGA~WUXGA, 480i~1080p, 4K UHD@24/25/30Hz (RGB 4:4:4 & YUV 4:2:2), 4K UHD@60Hz (YUV 4:2:0), 4K/2K@24/25/30Hz (RGB 4:4:4 & YUV 4:2:2) and 4K/2K@60Hz (YUV 4:2:0) dependent upon the output display's EDID settings
- /// Supports simultaneous audio outputs on HDMI, analog R/L, Coaxial and Optical
- /// Choose between HDMI bypass and 2 Channel audio using the HDMI output switch
- /// Choose between SPDIF bypass and 2 Channel audio using the SPDIF output switch
- /// Supports digital coaxial and optical audio sampling rate output up to 96kHz
- /// Support Dolby Digital/DTS sampling rate up to 48kHz
- /// DTS Digital Surround Decoder technology
- /// Dolby Digital Decoder technology

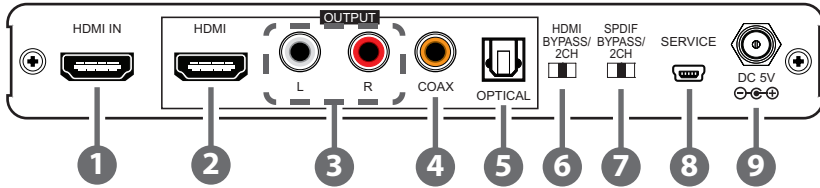
6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel



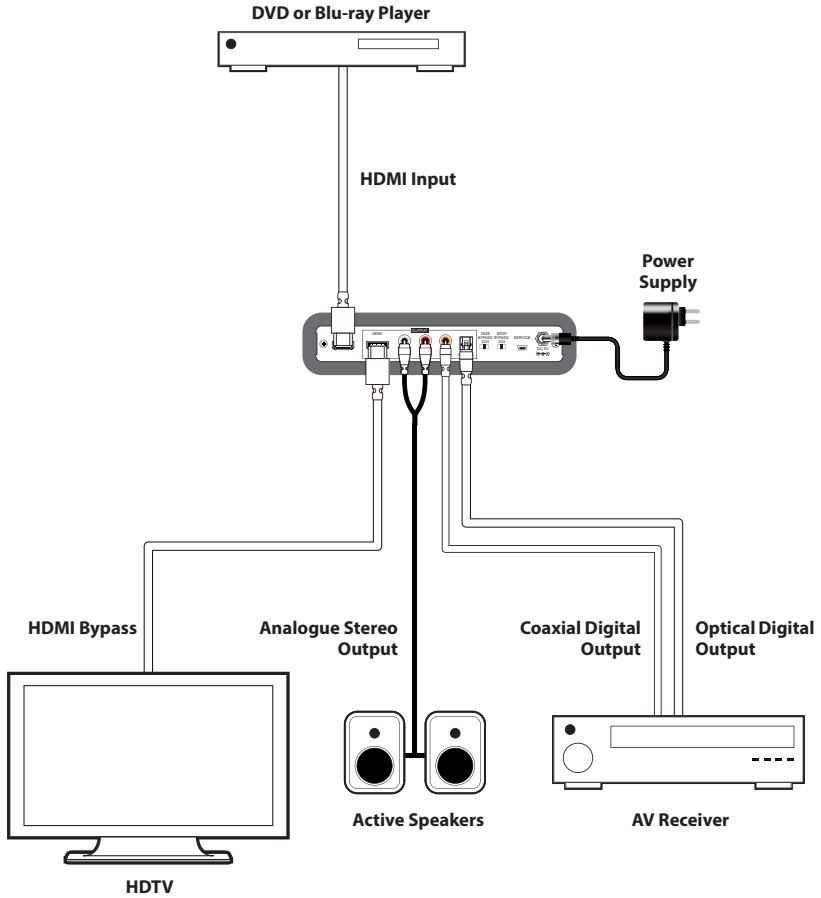
- 1 POWER:** This LED will illuminate when the device is connected to an active power supply.
- 2 PCM LED:** This LED will illuminate when the input audio source is PCM format.
- 3 DTS LED:** This LED will illuminate when the input audio source is DTS 2.0+Digital Out encoded.
- 4 Dolby LED:** This LED will illuminate when the input audio source is Dolby Digital encoded.

6.2 Rear Panel



- ❶ **HDMI IN:** Connect to an HDMI source device such as a Blu-ray player, Set-top Box or any HDMI equipped source device.
- ❷ **HDMI OUTPUT:** Connect to an HDMI equipped TV/display or AV receiver for video or audio output.
- ❸ **L/R OUTPUT:** Connect to the analogue line level input of an amplifier or active speakers.
- ❹ **COAX OUTPUT:** Connect to the digital optical input of an AV receiver.
- ❺ **OPTICAL OUTPUT:** Connect to the digital coaxial input of an AV receiver.
- ❻ **HDMI BYPASS/2CH:** For the HDMI output port, switch to BYPASS to allow audio pass-through from HDMI input port; switch to 2CH to enable audio decoding and 2-channel down-mixing for Dolby Digital or DTS audio signals from HDMI input port.
- ❼ **SPDIF BYPASS/2CH:** For the COAX and OPTICAL output ports, switch to BYPASS to allow audio pass-through from HDMI input port; switch to 2CH to enable audio decoding and 2-channel down-mixing for Dolby Digital or DTS audio signals from HDMI input port.
- ❽ **USB:** For manufacturer use only.
- ❾ **DC 5V:** Connect the adaptor included in the package to AC wall outlet for power supply.

7. CONNECTION DIAGRAM



8. SPECIFICATIONS

8.1 Technical Specifications

Video Bandwidth	300MHz/9Gbps
Input Ports	1× HDMI, 1× USB (Service Only)
Output Ports	1× HDMI, 1× R/L, 1× Coaxial, 1× Optical
HDMI Cable Length	Input: 10m@1080p, 5m@4K2K Output: 10m@1080p, 5m@4K2K
Power Supply	DC 5V/2.6A (US/EU standards, CE/FCC/UL certified)
ESD Protection	Human body model: ±8kV (air-gap discharge) ±4kV (contact discharge)
Dimensions	180mm (W) x 104mm (D) x 25mm (H)/Jacks Excluded 180mm (W) x 110.75mm (D) x 25mm (H)/Jacks Included
Weight	368g
Chassis Material	Metal
Silkscreen Color	Black
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	2.5W

8.2 Supported Video Resolutions

DVI and HDMI Supported Resolutions	Input	Output
640×480@60/72/75/85	✓	✓
720×480@60	✓	✓
720×576p@50	✓	✓
800×600@56/60/72/75/85	✓	✓
1024×768@60/70/75/85	✓	✓
1280×720@50/60	✓	✓
1280×720p@60	✓	✓
1280×768@60/70/75/85	✓	✓
1280×800@60	✓	✓
1280×1024@60	✓	✓
1360×768@60	✓	✓
1600×1200@60	✓	✓
1920×1080i@50/60	✓	✓
1920×1080p@24/25/30/50/60	✓	✓
1920×1200@60 (RB)	✓	✓
3840×2160@24/25/30	✓	✓
3840×2160@50/60 (YUV420)	✓	✓
4096×2160@24/25/30	✓	✓
4096×2160@50/60 (YUV420)	✓	✓

8.3 Audio Specifications

OUT IN	Output	Output Level	T.H.D+N (A-Weight)	Frequency Response	SNR	Crosstalk
HDMI 0dBFS	HDMI	0 dBFS	<0.00001%	±1dBFS	>140dB	<-160dB
	Optical	0 dBFS	<0.00001%	±1dBFS	>140dB	<-160dB
	Coaxial	0 dBFS	<0.00001%	±1dBFS	>140dB	<-160dB
	Line-Out	2Vrms ±0.1	<0.006%	±1dB	>100dB	<-110dB

8.4 Input Audio to Output Audio Chart

Audio Input	Input Format	Audio Output				
		Analog L/R	HDMI		SPDIF(Optical, Coaxial)	
			Switch Status		Switch Status	
			BYPASS	2CH	BYPASS	2CH
HDMI	LPCM 2CH	Analog 2CH	LPCM 2CH	LPCM 2CH	LPCM 2CH	LPCM 2CH
	Dolby Digital	Decoding Lt/Rt	Bitstream Pass-through	LPCM Lt/Rt	Bitstream Pass-through	LPCM Lt/Rt
	DTS	Decoding Lo/Ro	Bitstream Pass-through	LPCM Lo/Ro	Bitstream Pass-through	LPCM Lo/Ro

9. ACRONYMS

ACRONYM	COMPLETE TERM
DTS	Digital Theater System
DVI	Digital Visual Interface
EDID	Extended Display Identification Data
HDCP	High-bandwidth Digital Content Protection
HDMI	High-Definition Multimedia Interface
HDTV	High-Definition Television
LCM	Liquid Crystal Monitor
USB	Universal Serial Bus
VGA	Video Graphics Array
WUXGA	Wide Ultra Extended Graphics Array



CYP (UK) Ltd., Unit 7, Shepperton Business Park, Govett Avenue, Shepperton,
Middlesex, TW17 8BA

Tel: +44 (0) 20 3137 9180 | Fax: +44 (0) 20 3137 6279

Email: sales@cypeurope.com

www.cypeurope.com

v1.01