



AU-22DD

Digital/Analogue audio converter with Dolby® Digital
& DTS® 2.0+Digital Out Decoder

OPERATION MANUAL

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Version 1.1 August 2011

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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	SUMMARY OF CHANGE
v1.00	11/08/15	First release

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1. INTRODUCTION

The AU-22DD is a versatile audio converter allowing users to convert analogue audio signals to digital or digital audio signals to analogue. The AU-22DD supports Dolby Digital and DTS audio downmixing, and can simultaneously output from all 3 audio formats without any signal loss, adding extra flexibility to your AV system.

2. APPLICATIONS

- ///** Analog to digital audio signal conversion (ADC)
- ///** Digital to analog audio signal conversion (DAC)
- ///** Simultaneous digital and analogue audio outputs
- ///** Downmixing of Dolby Digital signals
- ///** Downmixing of DTS 2.0+Digital Out signals

3. PACKAGE CONTENTS

- ///** Universal Digital/Analog Audio Converter with Dolby Digital & DTS 2.0+Digital Out Decoder
- ///** 5 V/1 A Power Adaptor
- ///** Operation Manual

4. SYSTEM REQUIREMENTS

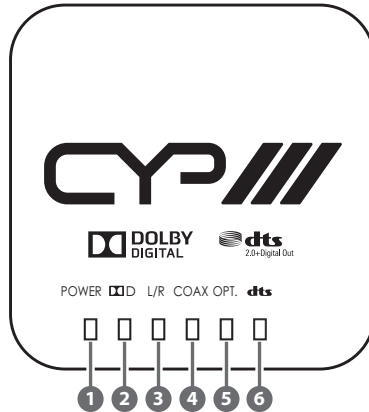
Audio Source equipment such as CD/DVD Player with connection cable(s) and AV receiver or similar for audio output.

5. FEATURES

- /// Embedded Dolby Digital & DTS Decoder technology for Digital downmixing
- /// Bi-directional Digital/Analogue Audio Converter
- /// Three-way conversion; Coaxial to Optical & Analogue, Optical to Coaxial & Analogue, and Analogue to Optical & Coaxial
- /// Integrated digital interpolator filter and Digital-to-Analogue Converter (DAC)
- /// Supports input sampling rates from 32 to 96 KHz and output at 48 KHz
- /// Provides electromagnetic noise free transmission

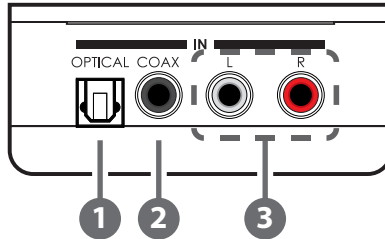
6. OPERATION CONTROLS AND FUNCTIONS

6.1 Top Panel



- 1 POWER LED Indicator**
The LED will illuminate in blue when the power is connected and in red when switched off. The unit will automatically turn on when connected to an AC wall outlet.
- 2 Dolby Digital LED Indicator**
When the source is Dolby Digital encoded the LED will illuminate in red and will remain off if not.
- 3 L/R IN LED Indicator**
When selecting the L/R input, the blue LED will turn on.
- 4 COAX IN LED Indicator**
When selecting the Coaxial input, the blue LED will turn on.
- 5 OPTICAL IN LED Indicator**
When selecting the Optical input, the blue LED will turn on.
- 6 DTS 2.0+Digital Out LED Indicator**
When the source is DTS 2.0+Digital Out encoded the LED will illuminate in red and will remain off if not.

6.2 Right Panel



1 OPTICAL IN

Connect to the audio source's optical output.

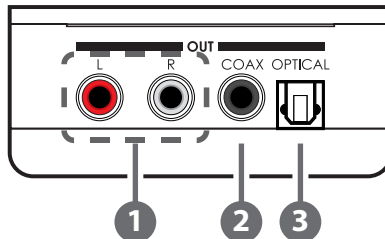
2 COAX IN

Connect to the audio source's coaxial output.

3 L/R IN

Connect to the analog audio source with a stereo RCA cable.

6.3 Left Panel



1 L/R OUT

Connect to the analogue audio compatible audio equipment, such as a TV or amplifier with a stereo RCA cable.

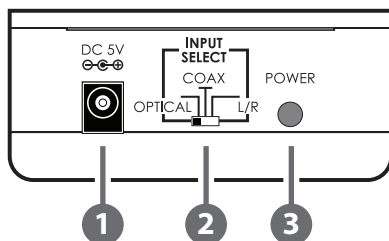
2 COAX OUT

Connect to the coaxial digital audio input of an audio system such as an amplifier or active speakers

3 OPTICAL OUT

Connect to the optical digital audio input of an audio system such as an amplifier or active speakers.

6.4 Rear Panel



1 DC 5V

Connect the 5 V/1 A DC power supply to the unit and plug the adaptor to an AC wall outlet.

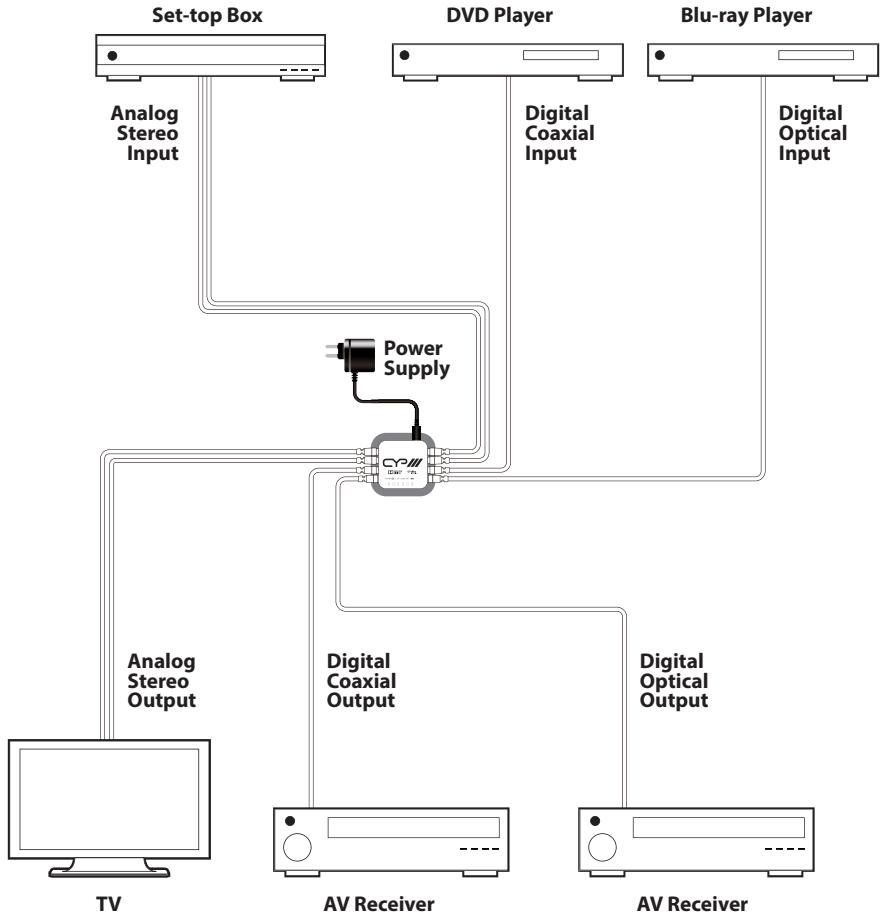
2 INPUT SELECT

Selects the current audio source, either optical, coaxial or L/R (Analog).

3 POWER

Push the button to turn the unit on or off. The device supports last power memory function, when the power supply is reconnected it will the last settings used .

7. CONNECTION DIAGRAM



8. SPECIFICATIONS

8.1 Technical Specifications

Input Ports	1×Optical, 1×Coaxial, 1×Analog Stereo (L/R)
Input Format	LPCM 2CH & Dolby Digital/DTS 2.0+Digital from Optical or Coaxial
Input Sample Rates	32 ~ 96 kHz
Output Ports	1×Coaxial, 1×Optical, 1×Analog Stereo (L/R)
L/R Input Impedance	47KΩ
L/R Output Impedance	600Ω
ESD Protection	Human body model: ±10 kV (air-gap discharge) ±6 kV (contact discharge)
Power Supply	5 V/1 A DC (US/EU standard, CE/FCC/UL certified)
Dimensions	85 mm (W)×85 mm (D)×35 mm (H)/Jacks Excluded 97 mm (W)×85 mm (D)×35 mm (H)/Jacks Included
Weight	108 g
Chassis Material	Plastic
Silkscreen 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	2.2W

8.2 Audio Specifications

OUT IN	Output	Output Level	T.H.D+N (A-Weight)	Frequency Response	SNR	Crosstalk
Optical 0dBFS	Optical	0~-1dBFS	<0.001%	±1 dBFS	>135 dB	<-155 dB
	Coaxial	0~-1dBFS	<0.001%	±1 dBFS	>135 dB	<-155 dB
	Line-Out	1.9Vrms±10%	<0.01%	±51 dB	>85 dB	<-100 dB
Coaxial 0dBFS	Optical	0~-1dBFS	<0.001%	±1 dBFS	>135 dB	<-155 dB
	Coaxial	0~-1dBFS	<0.001%	±1 dBFS	>135 dB	<-155 dB
	Line-Out	1.9Vrms±10%	<0.01%	±51 dB	>85 dB	<-100 dB
Line 2Vrms	Optical	0~-1dBFS	<0.01%	±51 dB	>100 dB	<-95 dB
	Coaxial	0~-1dBFS	<0.01%	±1 dB	>100 dB	<-95 dB
	Line-Out	1.9Vrms±10%	<0.01%	±1 dB	>85 dB	<-95 dB

8.3 Input Audio to Output Audio Chart

Audio Input	Input Format	Audio Output		
		Analog L/R	COAXIAL	OPTICAL
Analog L/R	Analog 2CH	Analog 2CH	LPCM 2CH	
COAXIAL or OPTICAL	LPCM 2CH	Analog 2CH	LPCM 2CH	
	Dolby Digital	Decoding Lt/Rt	Bitstream/Pass-through	
	DTS	Decoding Lo/Ro	Bitstream/Pass-through	

9. ACRONYMS

ACRONYM	COMPLETE TERM
Ω	Ohm
ADC	Analogue to Digital Conversion
COAX	Coaxial
DAC	Digital to Analogue Conversion
LPCM	Linear Pulse Code Modulation



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