



AU-D9

Bi-Directional Digital/Analogue Audio Converter (DAC)

OPERATION MANUAL



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Version 1.1

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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
v2.00	24/06/2019	Updated Format/Diagrams





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1. INTRODUCTION

The Universal Digital/Analogue Audio Converter allows users to convert Optical, Coaxial and Analogue audio signals. The unit can convert between analogue and digital formats and vice versa and can output simultaneously to all outputs (depending on the audio format) allowing it to act as an audio distributor.

2. APPLICATIONS

- M Analogue audio to digital audio signal conversion (ADC)
- Digital audio to analogue audio signal conversion (DAC)
- Simultaneous digital and analogue audio output
- M Digital coaxial to TOSLINK optical and TOSLINK optical to coaxial conversion

3. PACKAGE CONTENTS

- Universal Digital/Analogue Audio Converter
- **JULY 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

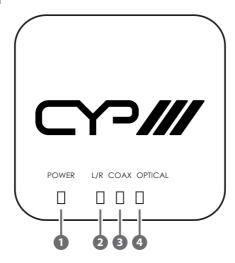
- Integrated digital interpolator filter and Digital-to-Analogue Converter (DAC)
- Integrated Analogue-to-Digital Converter (ADC)
- Supports sampling rates of 32, 44.1, 48 or 96 kHz
- Provides electromagnetic-noise-free transmission
- Easy to install and operate
- Compact and elegant design





6. OPERATION CONTROLS AND FUNCTIONS

6.1 Top Panel



1 POWER LED Indicator

The LED will illuminate in green when the power is connected and in red when switched off.

L/R IN LED Indicator

Will illuminate in blue when the unit is switched to the analogue L/R input.

3 COAX IN LED Indicator

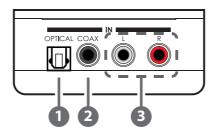
Will illuminate in blue when the unit is switched to the coaxial input.

4 OPTICAL IN LED Indicator

Will illuminate in blue when the unit is switched to the optical input.



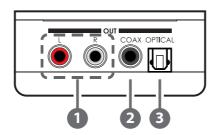
6.2 Right Panel



- 1 OPTICAL IN
 - Connect to the audio source's optical output.
- COAX IN Connect to the audio source's coaxial output.
- 3 L/R IN

 Connect to the analogue audio source with an stereo RCA cable.

6.3 Left Panel



1 L/R OUT

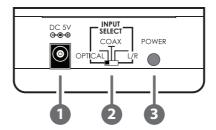
Connect to a compatible audio equipment, such as a TV or amplifier with an stereo RCA cable.

- COAX OUT
 - Connect to an audio system's coaxial input.
- **3** OPTICAL OUT

Connect to an audio system's optical input.



6.4 Rear Panel



1 DC 5V

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

2 INPUT SELECT

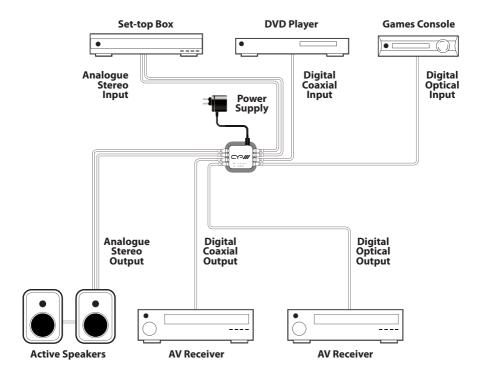
Selects the current audio source, either optical, coaxial or L/R (Analogue).

POWER

Push the button to turn the unit on or off.



7. CONNECTION DIAGRAM





8. SPECIFICATIONS

Input Ports 1×Optical, 1×Coaxial,

1×Analogue Stereo (L/R)

Input Format TOSLINK, S/PDIF & LPCM 2CH

Sample Rates 32/44.1/48/96 kHz

Output Ports 1xOptical, 1xCoaxial,

1×Analogue Stereo (L/R)

L/R Input Impedance $47 \text{K}\Omega$

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 97 mm (W)×85 mm (D)×35 mm (H)

Weight 120 g
Chassis Material Plastic
Silkscreen Colour White

Operating Temperature $0 \circ C \sim 40 \circ C / 32 \circ F \sim 104 \circ F$ Storage Temperature $-20 \circ C \sim 60 \circ C / -4 \circ F \sim 140 \circ F$ Relative Humidity $20 \sim 90 \%$ RH (non-condensing)

Power Consumption 1 W



Audio Specifications:

Input	Output			
Reference Level/ Frequency	Interface	Reference Level	T.H.D+N	Signal to Noise
L/R	L/R	1 Vrms±0.05	0.01% ↓	> 90dB
2Vrms/1 kHz	COAX	0 dB~-0.35dB	0.01% ↓	> 90dB
	OPTICAL	0 dB~-0.35dB	0.01% ↓	> 90dB
COAX	L/R	1 Vrms±0.05	0.01% ↓	> 90dB
0dBFS/1 kHz	COAX	0 dB±0.05	0.01% ↓	> 90dB
	OPTICAL	0 dB±0.05	0.01% ↓	> 90dB
OPTICAL	L/R	1 Vrms±0.05	0.01% ↓	> 90dB
0dBFS/1 kHz	COAX	0 dB±0.05	0.01% ↓	> 90dB
	OPTICAL	0 dB±0.05	0.01% ↓	> 90dB



Comparison between Input and Output Audio Format:

Input Interface	Output Interface	Output Format	Note
L/R	L/R	Analog 2CH	
Analogue	COAX	LPCM 2CH (48 kHz)	
2CH	OPTICAL	LPCM 2CH (48 kHz)	
OPTICAL	L/R	Analogue 2CH	Odd sound may appear when the input is of Dolby/DTS format
	COAX	LPCM 2CH/Dolby/DTS	Bypass
	OPTICAL	LPCM 2CH/Dolby/DTS	Bypass
COAX	L/R	Analogue 2CH	Odd sound may appear when the input is of Dolby/DTS format
	COAX	LPCM 2CH/Dolby/DTS	Bypass
	OPTICAL	LPCM 2CH/Dolby/DTS	Bypass



9. ACRONYMS

ACRONYM	COMPLETE TERM
Ω	Ohm
ADC	Analogue to Digital Converter
COAX	Coaxial
DAC	Digital to Analogue Converter
RCA	Audio Connector (Radio Corporation of America)
S/PDIF	Sony/Philips Digital Interconnect Format
TOSLINK	Toshiba Link



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