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**ALFATRON ELECTRONICS GmbH GERMANY**

## **ALF-CVDAC**

**Digital Audio Converter/1x3 Splitter**



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Version: CVDAC\_2019V1.2

## Statement

Thanks for choosing this product, please read this user manual carefully before using this product. The functions described in this version are updated till March, 2019. In the constant effort to improve our product, we reserve the right to make functions or parameters changes without notice or obligation.

## Safety Precaution

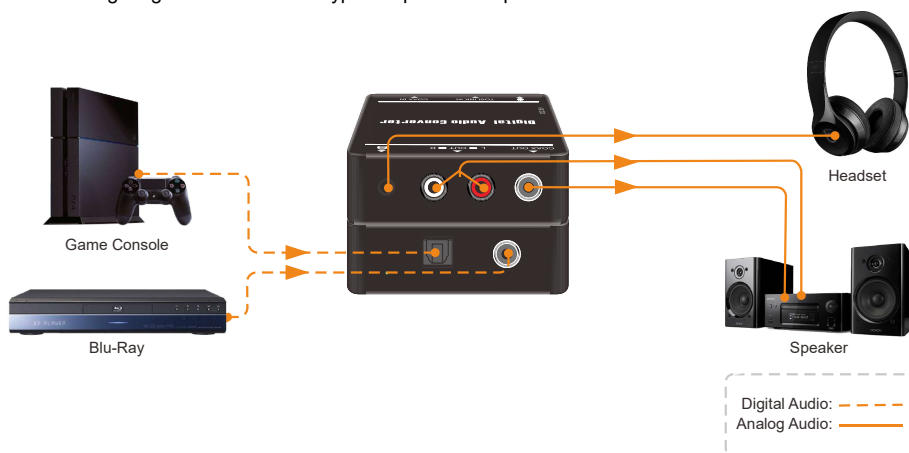
- Do not dismantle the housing or modify the module to avoid electrical shock or burn.
- Using supplies not meeting the products' specifications may cause damage, deterioration or malfunction.
- Do not expose the unit to rain, moisture or install this product near water.
- Install the device in a place with fine ventilation.
- Do not twist or pull by force ends of the optical cable. It can cause malfunction.
- Do not use liquid or aerosol cleaners to clean this unit.
- Always unplug the power to the device before cleaning.
- Unplug the power when not used for a long period of time.
- Refer all servicing to qualified service personnel.

## After-sales Service

We provide limited warranty for the product within three years.

## System Connection

The following diagram illustrates the typical input and output connection of the converter:



## Product Introduction

Thanks for choosing the ALF-CVDAC Digital Audio Converter, which is designed to convert coaxial or Toslink digital audio input to analog L/R and 3.5mm audio output. Simultaneously, the converter provides COAX SPDIF output for digital audio extension.

## Features

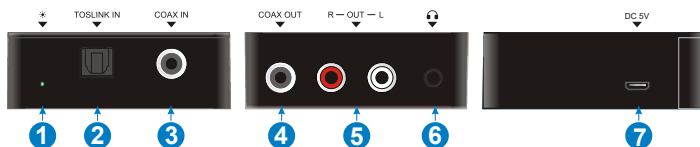
- Supports audio distribution splitting one audio source into three audio outputs.
- Converts coaxial or Toslink digital audio input to analog L/R and 3.5mm audio output.
- COAX SPDIF output for digital audio extension.
- Supports up to 24-bit/192 KHz input (PCM, Dolby Digital or DTS formats for digital audio extension only).
- Provides Micro-USB port for power cable connection.
- Easy to install and simple to operate.
- Compatible with coaxial or Toslink interface digital audio devices: CD/DVD, PS3, X-Box360, Blue-ray player, Computer, A/V receiver, etc.
- Ideal for interfacing between modern digital audio/video devices with analog amplifiers or self-powered speakers.

## Packing List

- 1x ALF-CVDAC Digital Audio Converter
- 1x Power Cord (USB-A to Micro-USB)
- 1x User Manual

**Note:** Please contact your distributor immediately if any damage or defect in the components is found.

## Panel Description



- ① **Power LED:** The LED illuminates blue when power is applied.
- ② **TOSLINK IN:** Toslink audio input.
- ③ **COAX IN:** Coaxial audio input.
- ④ **COAX OUT:** Coaxial audio output.
- ⑤ **L-OUT-R:** RCA audio output.
- ⑥ **3.5mm stereo audio output.**
- ⑦ **DC 5V:** Micro-USB port for power cable connection.

*\*When both the TOSLINK and COAX are connected to audio source devices, the coaxial audio source device will be selected as input source.*

## Technical Specification

<b>Audio Input</b>	
Audio Input	(1) TOSLINK IN, (1) COAX IN
Audio Format	LPCM 2CH, Dolby Digital 2/5.1 CH, DTS 2/5.1CH (Only PCM supports format conversion)
Sample Rate	32, 44.1, 48, 96, 192KHz, up to 24bit
<b>Analog Audio Output</b>	
Audio Output	(1) 3.5mm stereo audio, (1) L-OUT-R (RCA)
Audio Format	PCM
Frequency Response	20Hz – 20KHz, $\pm 3\text{dB}$
Max Output Level	2.0Vrms $\pm 0.5\text{dB}$ . 2V = 16dB headroom above -10dBV (316mV) nominal consumer line level signal
THD+N	< 0.05% (-80dB), 20Hz – 20KHz bandwidth, 1KHz sine at 0dBFS level (or max level)
SNR	> 80dB, 20Hz-20 kHz bandwidth
Crosstalk Isolation	< -80dB, 10KHz sine at 0dBFS level (or max level before clipping)
L-R Level Deviation	< 0.3dB, 1KHz sine at 0dBFS level (or max level before clipping)
Output Load Capability	1K $\Omega$ and higher (Supports 10x paralleled 10K $\Omega$ loads)
Background Noise	-80dB
<b>Digital Audio Output</b>	
Audio Output	(1) COAX OUT
Audio Format	LPCM 2CH, Dolby Digital 2/5.1 CH, DTS 2/5.1CH (Only PCM supports format conversion)
Output Level	$\pm 0.05\text{dBFS}$
Frequency Response	20Hz – 20KHz, $\pm 3\text{dB}$
THD+N	< 0.05% (-80dB), 20Hz – 20KHz bandwidth, 1KHz sine at 0dBFS level (or max level)
SNR	> 90dB, 20Hz-20 kHz bandwidth
Crosstalk Isolation	< -80dB, 10KHz sine at 0dBFS level (or max level before clipping)
L-R Level Deviation	< 0.3dB, 1KHz sine at 0dBFS level (or max level before clipping)
Noise Level	-90dB
<b>General</b>	
Operation Temperature	-5~ +55 $^{\circ}\text{C}$
Storage Temperature	-25 ~ +70 $^{\circ}\text{C}$
Relative Humidity	10%-90%
Power Supply	Input:100V~240V AC; Output: 5V DC 1A
Power Consumption	1.3W (Max)
Dimension (W*H*D)	66.0mm x 22.5mm x 66.0mm
Net Weight	50g

**Limited warranty in respect of Alfatron Products Only**

1.1 This limited warranty covers defects in materials and workmanship in this product.

1.2 Should warranty service be required, proof of purchase must be presented to the Company. The serial number on the product must be clearly visible and not have been tampered with in any way whatsoever.

1.3 This limited warranty does not cover any damage, deterioration or malfunction resulting from any alteration, modification, improper or unreasonable use or maintenance, misuse, abuse, accident, neglect, exposure to excess moisture, fire, improper packing and shipping (such claims must be presented to the carrier), lightning, power surges, or other acts of nature. This limited warranty does not cover any damage, deterioration or malfunction resulting from the installation or removal of this product from any installation, any unauthorized tampering with this product, any repairs attempted by anyone unauthorized by the Company to make such repairs, or any other cause which does not relate directly to a defect in materials and/or workmanship of this product. This limited warranty does not cover equipment enclosures, cables or accessories used in conjunction with this product.

This limited warranty does not cover the cost of normal maintenance. Failure of the product due to insufficient or improper maintenance is not covered.

1.4 The Company does not warrant that the product covered hereby, including, without limitation, the technology and/or integrated circuit(s) included in the product, will not become obsolete or that such items are or will remain compatible with any other product or technology with which the product may be used.

1.5 Only the original purchaser of this product is covered under this limited warranty. This limited warranty is not transferable to subsequent purchasers or owners of this product.

1.6 Unless otherwise specified, the goods are warranted in accordance with the manufacturer's product specific warranties against any defect attributable to faulty workmanship or materials, fair wear and tear being excluded.

1.7 This limited warranty only covers the cost of faulty goods and does not include the cost of labor and travel to return the goods to the Company's premises.

1.8 In the event of any improper maintenance, repair or service being carried out by any third persons during the warranty period without the Company's written authorization, the limited warranty shall be void.

1.9 A 7 (seven) year limited warranty is given on the aforesaid product where used correctly according to the Company's instructions, and only with the use of the Company's components.

1.10 The Company will, at its sole option, provide one of the following three remedies to whatever extent it shall deem necessary to satisfy a proper claim under this limited warranty:

1.10.1 Elect to repair or facilitate the repair of any defective parts within a reasonable period of time, free of any charge for the necessary parts and labor to complete the repair and restore this product to its proper operating condition.; or

1.10.2 Replace this product with a direct replacement or with a similar product deemed by the Company to perform substantially the same function as the original product; or

1.10.3 Issue a refund of the original purchase price less depreciation to be determined based on the age of the product at the time remedy is sought under this limited warranty.

1.11 The Company is not obligated to provide the Customer with a substitute unit during the limited warranty period or at any time thereafter.

1.12 If this product is returned to the Company this product must be insured during shipment, with the insurance and shipping charges prepaid by the Customer. If this product is returned uninsured, the Customer assumes all risks of loss or damage during shipment. The Company will not be responsible for any costs related to the removal or reinstallation of this product from or into any installation. The Company will not be responsible for any costs related to any setting up this product, any adjustment of user controls or any programming required for a specific installation of this product.

1.13 Please be aware that the Company's products and components have not been tested with competitor's products and therefore the Company cannot warrant products and/or components used in conjunction with competitor's products.

1.14 The appropriateness of the goods for the purpose intended is only warranted to the extent that the goods are used in accordance with the Company's installation, classification and usage instructions.

1.15 Any claim by the Customer which is based on any defect in the quality or condition of the goods or their failure to correspond with specification shall be notified in writing to the Company within 7 days of delivery or (where the defect or failure was not apparent on reasonable inspection by the Customer) within a reasonable time after discovery of the defect or failure, but, in any event, within 6 months of delivery.

1.16 If delivery is not refused, and the Customer does not notify the Company accordingly, the Customer may not reject the goods and the Company shall have no liability and the Customer shall pay the price as if the goods had been delivered in accordance with the Agreement.

1.17 THE MAXIMUM LIABILITY OF THE COMPANY UNDER THIS LIMITED WARRANTY SHALL NOT EXCEED THE ACTUAL PURCHASE PRICE PAID FOR THE PRODUCT.