

SIMPLIFIED  
MFG

# AUDEX2ARC



## User Manual

**VER 1.0**

# Thank you for purchasing the AUDEX2ARC

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

## Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment. When using Set Top Boxes (STB) like cable and physical satellite boxes, it is recommended to use a HDSURGE on the HDMI out of these sources.

## Table of Contents

<b>1. Introduction.....</b>	<b>1</b>
<b>2. Features. ....</b>	<b>1</b>
<b>3. Package Contents. ....</b>	<b>1</b>
<b>4. Specifications.....</b>	<b>2</b>
<b>5. Operation Controls and Functions. ....</b>	<b>3</b>
<b>6. Application Example. ....</b>	<b>5</b>
<b>7. Warranty.....</b>	<b>6</b>
<b>8. Contact.....</b>	<b>7</b>

# 1. Introduction

The AUDEX2ARC is a 48Gbps HDMI audio extractor that can extract audio signals from a HDMI source or an ARC-compatible TV to optical S/PDIF or analog stereo via 3.5mm mini-jack. Up to 48Gbps HDMI signals can pass through the AUDEX2ARC and it will extract audio (up to Dolby 5.1) via the optical port or via the 3.5mm mini-jack if the signal is in stereo. The AUDEX2ARC supports the entire HDMI 2.1 format and is HDCP 2.3 compatible. The AUDEX2ARC also has EDID management that supports FRL 10G and 12G.

## 2. Features

- HDMI 2.1 and HDCP 2.3 compliant
- Supports 48Gbps FRL and 18Gbps TMDS video bandwidth (8K or legacy 4K)
- Resolutions up to 8K@60Hz 4:2:0 12bit, 4K@120Hz 4:4:4 12bit
- HDMI 2.1 fully supported (VRR, ALLM, QMS, QFT, SBTM)
- HDR, HDR 10, HDR 10+, Dolby Vision, HLG pass-through
- LPCM 7.1CH, Dolby TrueHD, Atmos and DTS-HD Master, DTS:X Audio pass-through to display and when in ARC mode, will extract 5.1.
- ARC button off = audio extraction from signal to display
- ARC button on = audio extraction from display's ARC
- CEC control for control of sources
- Advanced EDID management

## 3. Package Contents

1 × 48Gbps HDMI Audio Extractor

1 × 5V/1A Power Adapter (US/EU standards, CE/FCC/UL certified)

1 × User Manual

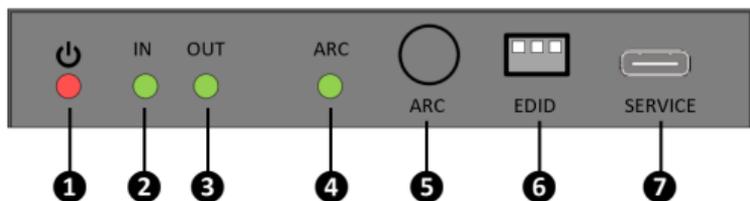
## 4. Specifications

Technical	
HDMI Compliance	HDMI 2.1
HDCP Compliance	HDCP 2.3
Video Bandwidth	48Gbps FRL and 18Gbps TMDS
Video Resolution	Up to 8K@60Hz 4:2:0 12bit, 4K@120Hz 4:4:4 12bit
Color Depth	8/10/12-bit
Color Space	RGB, YCbCr_4:4:4, YCbCr_4:2:2, YCbCr_4:2:0
Audio Formats	<b>HDMI IN/OUT:</b> LPCM, Dolby Digital/Plus/EX, Dolby True HD, Dolby Atmos, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD <b>AUDIO BREAKOUT:</b> OPTICAL OUT: PCM 2.0CH, Dolby, DTS 5.1CH L/R OUT: PCM 2.0CH
HDR	HDR, HDR 10, HDR 10+, Dolby Vision, HLG
ESD Protection	Human body model — ±8kV (Air-gap discharge) & ±4kV (Contact discharge)
Connection	
Input	1 × Source IN [HDMI Type A, 19-pin female]
Output	1 × TV(ARC) OUT [HDMI Type A, 19-pin female] 1 × L/R [3.5mm Stereo mini-jack] 1 × OPTICAL [S/PDIF, female]
Control	1 × SERVICE [USB Type C, Update port]
Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	95mm/3.75" [W] × 68mm/2.68" [D] × 18mm/0.71" [H]
Weight	178g/ 6.28oz.
Power Supply	Input: AC 100-240V 50/60Hz, Output: DC 5V/1A (US/EU standards, CE/FCC/UL certified)
Power Consumption	4W (Max)

Operation 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)		
<b>Recommended HDMI Cable</b>			
<b>Video Resolution</b>	8K60	4K60	1080P
<b>HDMI Cable Type</b>	Ultra HDMI 2.1 cable	HDMI 2.0 cable	HDMI cable
<b>HDMI Cable Length</b> (HDMI IN / OUT)	2m/6.6ft ~ 3m/10ft	10m/33ft	15m/49ft
The use of "Premium High-Speed HDMI" cable is highly recommended.			

## 5. Operation Controls and Functions

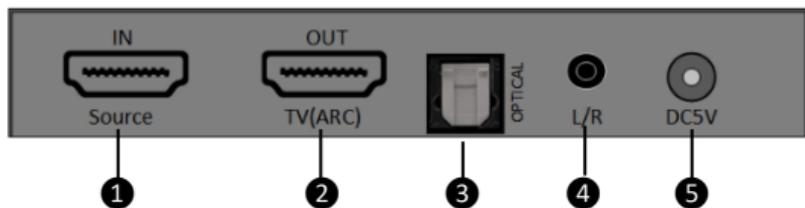
### Front Panel



No.	Name	Function Description
1	Power LED	Illuminated when device has power
2	IN LED	When the IN port connects to an active source, the green LED will be illuminated.
3	OUT LED	When the OUT port is connected to a display device and a signal is passing through the device, the corresponding green LED will be illuminated.
4	ARC LED	<ul style="list-style-type: none"> <li>• Illuminated: The ARC is enabled with normal CEC communication. The audio is returned to output via the optical port.</li> <li>• Flashing: The ARC is enabled with an abnormal CEC communication. The audio has failed to return to the output optical port.</li> <li>• Dark: The ARC is disabled.</li> </ul>

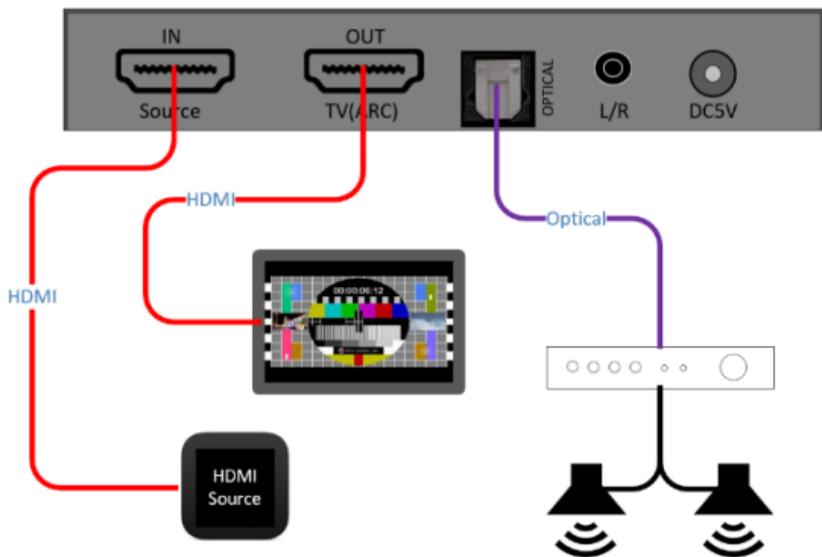
No.	Name	Function Description
5	ARC button	Press this button to enable or disable the ARC function.
6	EDID DIP switch	Use the DIP switch to set EDID. [DIP]=111: Copy OUT port sink video and audio EDID [DIP]=110: Copy OUT port sink video EDID, Audio 2.0CH [DIP]=101: Copy OUT port sink video EDID, Audio 5.1CH [DIP]=100: FRL12G_8K_HDR, 2.0CH [DIP]=011: FRL12G_8K_HDR, 5.1CH [DIP]=010: FRL10G_8K_HDR, 2.0CH [DIP]=001: FRL10G_8K_HDR, 5.1CH [DIP]=000: 1080P, 2.0CH
7	SERVICE	Firmware update and debug port.

## Rear Panel



No.	Name	Function Description
1	IN port	HDMI signal input port, connects to HDMI source.
2	OUT port	HDMI signal output port, connects to HDMI display device such as TV or Monitor with an HDMI cable. ARC is returned through this port when ARC is enabled.
3	OPTICAL	Optical audio output port [SPDIF/TOSLINK]
4	L/R	3.5mm mini-jack analog audio output port.
5	DC 5V	DC 5V/1A power input port.

## 6. Application Example



**\*\*NOTE\*\*** The signal to the amplifier comes from the source unless the "ARC" button is engaged. When the ARC button is engaged, the audio comes from the ARC of the display.

## 7. Warranty

Should you feel that this product does not function adequately due to defects in materials or workmanship, we (referred to as "the warrantor") will, for the length of the period indicated below (starting from the original date of the purchase) either a) repair the product with new or refurbished parts. Or b) Replace the product with a new or refurbished product. All Simplified MFG products are covered by a 3-year warranty. During this period there will be no charge for unit repair, replacement of unit components or replacement of the product if deemed necessary. The decision to repair or replace is made by the warrantor. The purchaser must mail in the product during the warranty period. This limited warranty only covers the product purchased as new and is extended to the original purchaser only. It is non-transferable to subsequent owners, even during the warranty period. A purchase receipt or other proof of purchase date is required for the limited warranty service.

## 8. Contact

Sales and Tech Support  
P. 833-HDMI-411 (833-436-4411)  
E. [info@simplifiedmfg.com](mailto:info@simplifiedmfg.com)



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