DXA-ARC-TX

Dante® HDMI™ ARC Encoder

USER MANUAL

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Table of Contents

Thank you for purchasing this product

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

Important Safety Note – Surge Protection Recommended

This product contains sensitive electronic components that may be damaged by electrical spikes, surges, lightning strikes, or static discharge. To protect and extend the service life of your equipment, we strongly recommend using a surge protection device.

Warranty Registration

Activate your warranty by registering your product at:
→ **www.orei.com/register**

Need Technical Support? We're Here to Help.
Our experienced Technical Support Team is available to answer your questions, offer expert advice, and help troubleshoot any issues to keep your project on track—on time and on budget.

Live Support Hours (US/Canada/Mexico):

Monday–Friday | 9:00 a.m. – 5:00 p.m. Central Time

Contact Us:
Email: info@orei.com
Phone: 877-290-5530
Chat Live: www.orei.com

Send us an instant message—our team typically responds within moments during live support hours.

Introduction

The ToVi DXA-ARC-TX is a compact, high-performance audio encoder built on the Dante® Ultimo 2×2 platform, designed to integrate HDMI™ ARC audio sources into Dante® networked audio systems. It converts two-channel HDMI™ ARC audio into Dante® 2-channel digital audio, enabling stable and low-latency audio transmission over standard IP networks.

The adapter supports HDMI ARC audio with sampling rates from 32 kHz to 192 kHz at 24-bit depth (PCM 2-channel), while delivering Dante output at 44.1 kHz, 48 kHz, 88.2 kHz, and 96 kHz, also at 24-bit depth (PCM 2-channel). The adapter also supports an adjustable delay setting of 1, 2, or 5ms. With plug-and-play operation, flexible USB-C or Power over Ethernet (Class 0 802.3af PoE) power options, and a lightweight, portable design, it is ideal for recording studios, live performances, concerts, art festivals, broadcast setups, and professional AV installations.

Features

1. **HDMI™ ARC to Dante® Audio Conversion** – Converts two-channel HDMI™ ARC audio to Dante® 2CH digital audio
2. **Dante® Ultimo 2×2 Platform** – Reliable, low-latency audio transport over IP networks
3. **Wide HDMI™ Sampling Rate** – PCM 2CH from 32kHz to 192kHz at 24-bit depth
4. **Professional Dante® Output** – PCM 2CH at 44.1 kHz, 48 kHz, 88.2 kHz, and 96 kHz with 24-bit depth
5. **Configurable Delay** – Adjustable 1ms, 2ms, or 5ms delay settings
6. **AES67 Compatible** – Ensures interoperability with AES67-compliant network audio systems
7. **Dual Power Options** – Powered via USB-C or PoE (IEEE 802.3af, Class 0)
8. **Compact, Portable Design** – Easy installation and flexible deployment

Package Contents & Specifications

Package Contents

1.	DXA-ARC-TX	1pcs
2.	Hook & Loop	2pcs
3.	User Manual	1pcs

Specifications

Technical	
Input	Two-channel HDMI™ ARC audio
Output	Dante® 2CH digital audio
Control Method	Dante® Controller
Network Bandwidth	100Mbps
Audio Latency	Configurable Dante® device latency (Supports 1, 2 or 5ms configurable using Dante® Controller)
Audio Formats	ARC IN [Digital audio input, PCM 2CH 32K-192KHz 16/24bit] Dante® OUT [Digital audio output, PCM 2CH 44.1K-96KHz 16/24Bit]
Transmission Distance	328ft/100m (CAT6/6A/7)

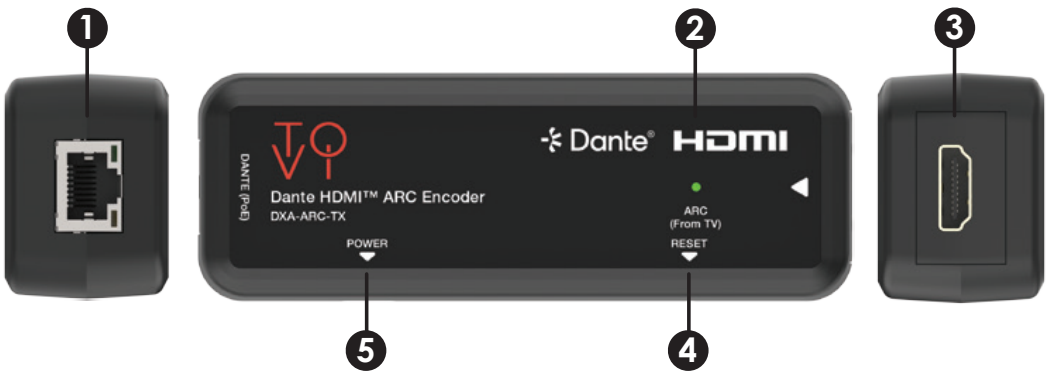
Specifications

ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) & ±4kV (Contact discharge)
Audio Parameters	
Input Impedance	N/A
Line Input Level (Max)	N/A
Frequency Response	20Hz to 20kHz (± 0dB)
Dynamic Range	> 130dB@0dBu, 1kHzA-weighted
Audio S/N Ratio	> 130dB@0dBu, 1kHzA-weighted
Audio THD+N	< 0.01%@+4dBu, 1KHz
Audio Output Delay	< 1ms
Connections	
Input: 1× ARC IN [HDMI™ Type A, 19-pin female] 1x POWER [USB-C port, 12-pin female] Output: 1x DANTE [RJ45 connector, PoE]	

Specifications

Mechanical	
Housing	Plastic Enclosure
Color	Black
Dimensions	L: 115mm / 4.53in | W: 40mm / 1.57in H: 28mm / 1.10in
Weight	87g / 3.07oz
Power Supply	USB input: 5V/500mA PoE input: PoE IEEE802.3af Class 0
Power Consumption	0.85W (Max)
Operation Temperature	32˚F~104˚F/0˚C~40˚C
Storage Temperature	-4˚F~140˚F/-20˚C~60˚C
Operating Humidity	20%~80% relative humidity, non-condensing
Storage Humidity	10%~90% relative humidity, non-condensing

Operation Controls and Functions



No.	Name	Function Description
1.	DANTE (PoE) port	Connect to a 1G network switch for PoE and signal transmission. **Green LINK LED**: Remains steady when the network connection is established successfully. **Yellow DATA LED**: Blinks during active Dante® audio data transmission.
2.	ARC LED (Green)	• Steady: Active audio input is detected. • Flashing: The unit is booting.
3.	ARC port	Connect to the ARC port of a compatible TV.
4.	RESET	Press the button to factory reset the unit.
5.	POWER	USB-C port for connecting a 5V/500mA power supply to power the device, while also supporting firmware updates and API command control.

API Commands

The encoder supports API command control. Connect the POWER port to a PC using a USB-C cable, then open a serial command tool on the PC to send API commands and control the encoder. The supported commands are listed below.

API Commands				
Service port (USB-C virtual RS-232) communication protocol Baud rate: 115200 (Fixed) Data bit: 8 Stop bit: 1 Parity bit: none				
Command	**Function**	**Example**	**Feedback**	**Factory Default**
?	List all commands	?		
help	List all commands	help		
get fw version	Get firmware version	get fw version	MCU: V1.00.01	
set reboot	Reboot the device	set reboot	Reboot... System Initial-izing... Initialization Finished! BOOT: V1.00.01 MCU: V1.00.01	
get status	Get system status	get status	Please refer to the note for “get status”.	
get arc	Get ARC status	get arc	ARC on	
set arc	Toggle ARC event (dis-able and enable HDMI output 5V)	set arc	ARC event	

Note: The feedback of the command “get status” is as following:

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Status Info Dante 2CH ARC Input Adapter
MCU: V1.00.01

Output	Cable	ARC
HDMI	Connected	On

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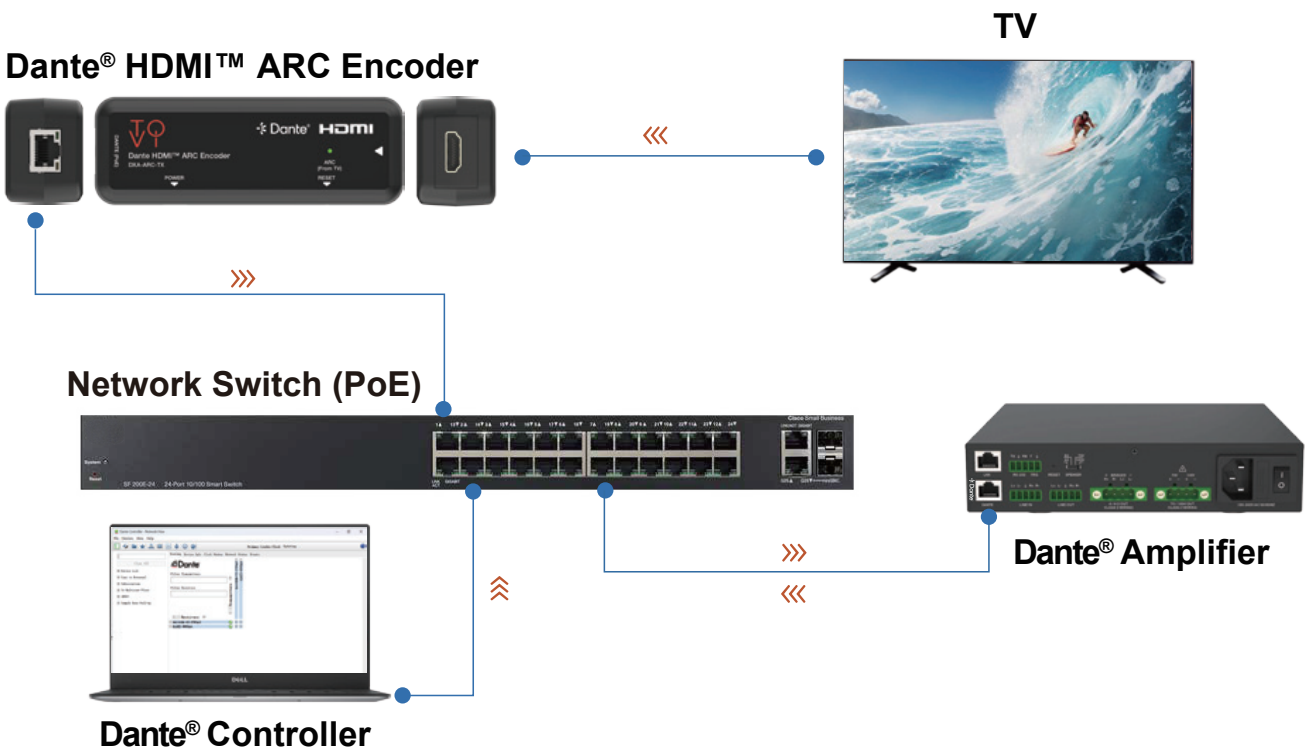
Application Example



FAQs & Troubleshooting

1. Audio still plays on the TV speakers and is not passing through the Encoder
- Confirm the HDMI port on the TV is labeled ARC. - Enable ARC in the TV's audio settings. - Set the TV's audio format to PCM or Stereo. - Use an ARC compatible HDMI 2.0 cable. - If the TV is eARC compatible, make sure eARC is disabled in settings as the encoder only supports standard ARC.

2. Can I connect an ARC Soundbar to the Encoder?
No, this is an ARC Encoder and it can only accept incoming ARC signals from a compatible TV.

3. Audio is not heard on Dante Decoders
- Ensure proper routing in Dante Controller software. - Ensure the sampling rate set at the source is supported by the Decoders. - Check if the Decoders are on the same network/subnet.

FAQs & Troubleshooting

4. The device does not appear in Dante® Controller
- Confirm the device is powered (via USB-C or PoE). - Make sure your computer and the device are on the same network/sub-net. - Disable or configure firewalls that may block network discovery.

5. How do I route audio from the device?
All audio routing is managed through Dante® Controller software. The device appears as a Dante® transmitter, allowing its audio channels to be routed to other Dante®-enabled devices, including ToVi Dante® models.

Still have some questions?
Please feel free to contact us at: info@orei.com. OR Fill out the form on the 'Contact Us' page on the website.

Our team will be more than happy to help you.

OREI Live Technical Support Hours

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