



DXA-OPT-TX

Dante® Optical Encoder

USER MANUAL

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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

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

Introduction

The ToVi DXA-OPT-TX is a 2-channel Dante® optical input adapter built on the Dante® Ultimo 2x2 platform, designed to bridge Dante® networked audio systems with optical (SPDIF/TOSLINK) audio equipment. It converts 2-channel optical audio into 2-channel Dante® digital audio, enabling seamless audio distribution from optical audio devices to IP-based networks.

The adapter supports Optical audio input up to PCM 2-channel with sampling rates up to 32KHz-192KHz at 24-bit with Dante audio output at PCM 2-channel with sampling rates up to 44.1, 48, 88.2, and 96kHz at 24-bit. Configurable Dante® audio delay settings of 1ms, 2ms, or 5ms allow precise audio synchronization, and AES67 support ensures interoperability with other compliant audio-over-IP systems. High-quality digital signal processing delivers lossless audio performance with low latency and high reliability.

Designed for ease of deployment, the DXA-OPT-TX offers plug-and-play operation, USB-C or Power over Ethernet (PoE) power options, and a compact, lightweight form factor. It is ideal for recording studios, live sound, concerts, broadcast environments, art installations, and professional AV applications requiring reliable optical audio to Dante conversion.

1. **Optical Audio to Dante® Conversion** – Converts Optical 2CH audio to two-channel Dante® output.
2. **Dante® Ultimo 2x2 Platform** – Delivers stable, low-latency networked audio performance
3. **High Sampling Rate** – Supports PCM audio input up to 192kHz and output up to 96kHz at 24-bit depth
4. **Configurable Latency** – Adjustable 1ms, 2ms, or 5ms delay settings
5. **AES67 Compatibility** – Ensures interoperability with AES67-compliant audio networks
6. **Dual Power Options** – Powered via USB-C or PoE (IEEE 802.3af, Class 0)
7. **Compact & Portable Design** – Simple installation with flexible deployment

Package Contents & Specifications

Package Contents

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

Specifications

Technical	
Input	Two-channel optical 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	Optical Input: PCM 2CH 32kHz-192kHz at 16/24bit depth Dante® Output: PCM 2CH 44.1kHz-96kHz at 16/24Bit depth
Transmission Distance	328ft / 100m (CAT6 / 6A / 7)

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, 1 kHzA-weighted
Audio S/N Ratio	> 130dB@0dBu, 1 kHzA-weighted
Audio THD+N	< 0.01%@+4dBu, 1 KHz
Audio Output Delay	< 1ms
Connections	
INPUT	1x OPTICAL [S/PDIF] 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	88g / 3.10oz
Power Supply	USB input: 5V / 500mA PoE input: PoE IEEE802.3af Class 0
Power Consumption	0.69W (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

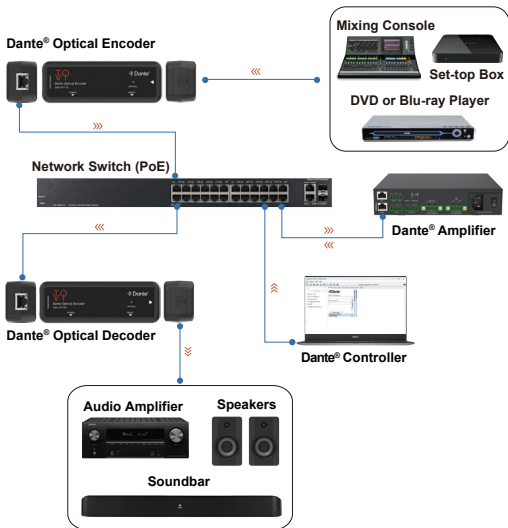
Operation Controls and Functions



No.	Name	Function Description
1.	DANTE (PoE)	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.	OPTICAL LED (Green)	Solid: Active audio input is detected. Flashing: Device is booting
3.	OPTICAL Port	Connect an audio source device like amplifier, audio mixer, etc.
4.	RESET	Press the button to reset the Dante® settings of the device.
5.	POWER	Connect a 5V/500mA power supply to power the device. The port can also be used for firmware updates.

Note: The Reset button only restores Dante® settings. To reset the device to factory settings, please use the Dante® Controller software.

Application Example



Trademarks

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1. The device does not appear in Dante® Controller

- Confirm the device is powered (via USB or PoE).
- Make sure your computer and the device are on the same network/subnet.
- Disable or configure firewalls that may block network discovery.

2. Audio dropouts or glitches

- Increase Dante® latency to 2ms or 5ms.
- Confirm that all Dante® devices are set to the same sample rate.
- Check for clock sync issues in Dante® Controller.
- Avoid network congestion by using a dedicated Gigabit Ethernet switch.

3. 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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