TURTLE

DANTE USB DUAL CHANNEL I/O ADAPTER

User Manual
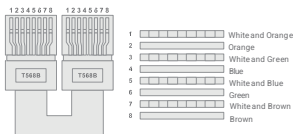
VER 1.0

Thank you for purchasing TURTLE product

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, lighting strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

Caution

The product requires the use of UTP connectors. Please connect in direct interconnection method and do not cross connect.

1	White and Orange
2	Orange
3	White and Green
4	Blue
5	White and Blue
6	Green
7	White and Brown
8	Brown

Direct Interconnection Method

Table of Contents

1. Introduction

Experience flawless bi-directional conversion between two-channel USB audio and Dante® 2CH digital audio. This versatile adapter is USB audio device class 1.0/2.0 compatible, supporting USB output up to 24bit/192KHz and input up to 24bit/96KHz. With Dante® audio sampling rates of 24bit at 44.1, 48, 88.2, and 96KHz, it delivers exceptional audio quality. The configurable Dante® audio delay (1, 2, or 5 milliseconds) ensures precision in any setup. Power by PoE or USB-C, for maximum powering flexibility.

2. Features

- Interconverts between two-channel USB audio and Dante ® 2CH digital audio
- USB audio device class 1.0/2.0-compatible
- USB audio output up to 192KHz@24bit, USB audio input up to 96KHz @24bit
- Dante® audio sampling rate supports 44.1/48/88.2/96KHz@24bit
- Dante® audio delay supports 1/2/5ms (configurable)
- Supports local USB-C port power supply and PoE function (Class 0 802.3af PoE)
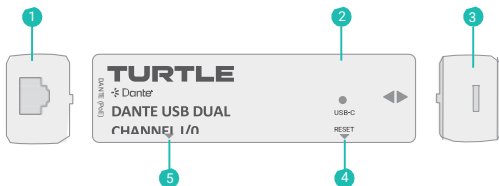- Compact design for easy and flexible installation

3. Package Contents

- 1x Dante® 2CH USB-C I/O Adapter
- 2x Hook & Loop
- 1x User Manual

4. Specifications

Technical	
Control Method	Dante® Controller
Video Network Bandwidth	100M
Audio Latency	Configurable Dante® device latency (Supports 1, 2 or 5ms configurable using Dante® Controller)
Transmission Distance	328ft/100m (CAT6/6A/7)
Audio Formats	USB AUDIO IN [Digital audio input, PCM 2CH 44.1K-96KHz 16/24bit] USB AUDIO OUT [Digital audio output, PCM 2CH 44.1K-192KHz 16/24bit] DANTE IN/OUT [Digital audio input/output, PCM 2CH 44.1K-96KHz 16/24bit]
Audio Parameters	USB AUDIO IN	
	Input Impedance	N/A
	Line Input Level (Maximum)	N/A
	Frequency Response	20Hz to 20kHz (-/+0dB)
	Dynamic Range	>130dB, 1kHzA-weighted
	Audio S/N Ratio	>130dB, 1kHzA-weighted
	Audio THD+N	< 0.01% at +4dBu, 1KHz
	Audio Output Sync Delay	<10ms

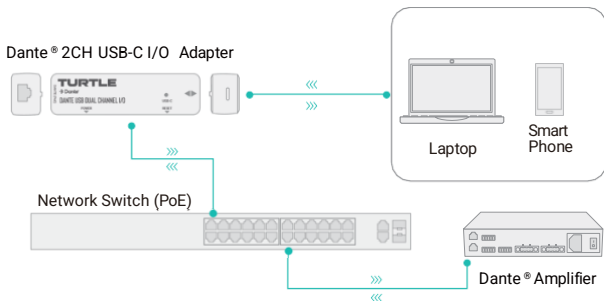|	USB AUDIO IN	
Audio Parameters	Input Impedance	N/A
	Line Input Level (Maximum)	N/A
	Frequency Response	20Hz to 20kHz (-/+0dB)
	Dynamic Range	>130dB, 1kHzA-weighted
	Audio S/N Ratio	>130dB, 1kHzA-weighted
	Audio THD+N	< 0.01% at +4dBu, 1KHz
	Audio Output Sync Delay	<10ms
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) & ±4kV (Contact discharge)	
Connection		
1x DANTE [RJ45 connector, Digital audio in/out, PoE] 1x USB-C [USB-C with USB 1.0/2.0, USB audio in/out, 12-pin female] 1x POWER [USB-C power and firmware update port, 12-pin female] 1x RESET button [System reboot button] 1x USB-C LED [Green color, USB 5V indicator]		
Mechanical		
Housing	Plastic Enclosure	
Color	Black	
Dimensions	115mm [W] x 40mm [D] x 28 mm [H]	
Weight	94g	
Power Supply	USB input: 5V/500mA PoE input: PoE IEEE802.3af Class 0	
Power Consumption	1.65W (Max)	
Operating Temperature	32 ~ 104°F / 0 ~ 40°C	
Storage Temperature	-4 ~ 140°F / -20 ~ 60°C	
Operating Humidity	20% ~ 80% RH (relative humidity, non-condensing)	
Storage Humidity	10% ~ 90% RH (relative humidity, non-condensing)	

5. Operation Controls and Functions

No.	Name	Function Description
1	**DANTE (PoE) port**	Dante® digital audio input/output port, connected to the Network Switch through RJ45 line, supporting PD power supply. The green LINK LED is always on after normal connection. The yellow DATA LED is flashing when there is data transmission.
2	**USB-C LED (green)**	When there is power input at the USB-C port, the USB-C LED will be on.
3	**USB-C port**	USB-C port with following two functions: (1) USB-C audio signal input/output port, connected to USB-C audio source/playback device. (2) USB 5V /500mApower input port.
4	**RESET button**	Press this button to reboot the unit.
5	**POWER port**	USB-C port with following two functions: (1) USB-C 5V/500mA power input port. (2) Firmware update port.

Note: The RESET button can only be used for device reboot, and device reset setting needs to be done through the Dante® Controller.

6. Application Example

Dante ® 2CH USB-C I/O Adapter

Laptop

Smart Phone

Network Switch (PoE)

Dante ® Amplifier

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