TURTLE

DANTE BLUETOOTH INPUT ADAPTER

User Manual
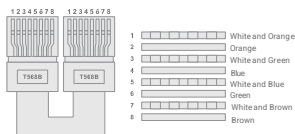VER 1.0

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.

Direct Interconnection Method

Table of Contents

1. Introduction

This adapter enables seamless conversion from two-channel Bluetooth audio to Dante® 2CH digital audio, supporting Bluetooth V5.1 with SBC, AAC, APTX, APTX-LL, and APTX-HD codecs for high-fidelity audio up to 24-bit/192kHz. The Dante® audio output is sampled at 24-bit/48kHz, ensuring exceptional sound quality. With configurable Dante® audio delay options of 1, 2, or 5 milliseconds, this adapter delivers precise, low-latency performance. Powered via PoE or USB-C, it offers flexible power solutions for any professional audio setup.

2. Features

- Two-channel Bluetooth audio to Dante® 2CH digital audio
- Supports Bluetooth V5.1, SBC/AAC/APTX/APTX-LL/APTX-HD, up to 192KHz@24bit
- Dante® audio sampling rate supports 48KHz@24bit
- Dante® audio delay supports 1/2/5ms (configurable)
- Supports local USB-C port power supply and PoE function (Class 0 802.3af PoE)
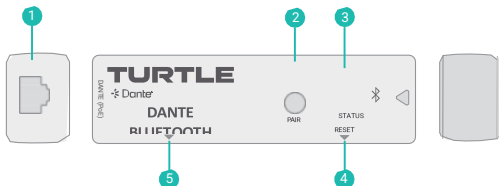- Compact design for easy and flexible installation

3. Package Contents

- 1x Dante® 2CH Bluetooth Input Adapter
- 2x Hook & Loop
- 1x User Manual

4. Specifications

Technical	
Input	Two-channel Bluetooth audio
Output	Dante® 2CH digital audio
Control Method	Dante® Controller
Video Network Bandwidth	100M
Audio Latency	Configurable Dante® device latency (Supports 1, 2 or 5ms configurable using Dante® Controller)
Audio Formats	Bluetooth IN [Digital audio input, PCM 2CH 44.1K-192KHz 16/24bit] DANTE OUT [Digital audio output, PCM 2CH 48KHz 16/24bit]

Audio Parameters	Input Impedance	N/A
	Line Input Level (Maximum)	N/A
	Frequency Response	20Hz to 20kHz (-/+0dB)
	Dynamic Range	>100dB@2Vrms, 1kHzA-weighted
	Audio S/N Ratio	>100dB@2Vrms, 1kHzA-weighted
	Audio THD+N	<0.01%@0dBV, 1KHz

Transmission Distance	328ft/100m (CAT6/6A/7)
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) & ±4kV (Contact discharge)

Connection	
Input	1x POWER [USB-C port, 12-pin female] 1x Bluetooth Input [Wireless]
Output	1x DANTE [RJ45 connector, PoE]
Others	1x RESET button [System reboot button] 1x PAIR button 1x STATUS LED

Mechanical	
Housing	Plastic Enclosure
Color	Black
Dimensions	115mm [W] x 40mm [D] x 28 mm [H]
Weight	93g
Power Supply	USB input: 5V/500mA PoE input: PoE IEEE802.3af Class 0
Power Consumption	0.65W (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 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.

No.	Name	Function Description
2	**PAIR button**	Bluetooth pairing button. ▪ Short press this button to start Bluetooth pairing. ▪ Long press up to 5s to clear the current paired source device and start a new Bluetooth pairing. Note: Above button operations are only available when "Bluetooth discoverable" is set to "on" (default). If user only want the particular device to be connected to this Bluetooth, they can set "Bluetooth discoverable" to "off " through API command or PC tool via USB -C power port, and at this moment the button will be non-functional.
3	**STATUS LED (green)**	Bluetooth pairing indicator light: ▪ Solid on: Bluetooth is paired. ▪ Light flicking at 2Hz: Bluetooth is pairing. ▪ Light flicking at 1Hz: Bluetooth is not paired.
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 or Bluetooth update port. Send the serial port command "set bt update" to switch to the Bluetooth update mode. After Bluetooth update, please reboot the unit to take effect.

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

6. API Commands

The adapter supports API commands control. Connect the POWER port to a PC with a USB -C cable. Then, open a serial command tool on PC to send API commands to control the adapter.
The supported commands are as following.

API Commands

Service port (USB -C virtual RS -232) communication protocol
Baud rate: 115200(Fixed)   Data bit: 8   Stop bit: 1   Parity bit: none
The end mark of command is "<CR><LF>"

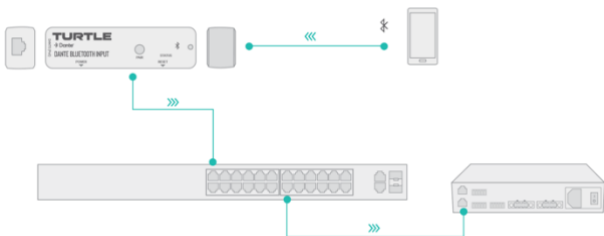| Command	Function	Example	Feedback	Factory Default
?	List all commands	?		
help	List all commands	help		
get fw version	Get firmware version	get fw version	MCU FW v1.0.0 Bluetooth FW v36	
set reboot	Reboot the device	set reboot	Reboot... System Initializing... Initialization Finished! MCU FW v1.0.0 Bluetooth FW v1.0.0	
set reset	Reset to factory defaults	set reset	Sure to RESET to default settings? Type "Yes" after next prompt to confirm...	
get status	Get system status	get status	Please refer to the note for "get status".	
set bt name <x>	Set Bluetooth device name	set bt name <Dante Adapter>	Set Bluetooth device name to Dante Adapter	
get bt name	Get Bluetooth device name	get bt name	Dante Adapter- 12345	12345 = Mac address last 5 letters
set bt discover on/off	Set Bluetooth discoverable on/off	set bt discover on set bt discover off	Set Bluetooth discoverable on Set Bluetooth discoverable off	on
get bt discover	Get Bluetooth discoverable on/off status	get bt discover	On	
get bt connection	Get Bluetooth connection status	get bt connection	Connected Disconnected	
get bt source	Get Bluetooth connected source name	get bt source	Tom of iPhone 15 No source connected	
set bt paired clear	Clear Bluetooth paired sources	set bt paired clear	Clear Bluetooth paired sources	
set bt update	Set Bluetooth FW update	set bt update	Bluetooth update...	

Note: The feedback of the command of "get status" is as following. (The middle line ends with <LF><CR>   and the last line ends with <CR><LF>.)

Status Info Dante 2CH Bluetooth Input Adapter
MCU FW v1.0.0 Bluetooth FW v36

Bluetooth_Name   : Dante Adapter-12345
Bluetooth_Discoverable : On
Bluetooth_Connection : Connected
Bluetooth_Source   : Tom of iPhone 15
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7. Application Example

Dante ® 2CH Bluetooth Input Adapter

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