



CYP AU-DTI4-TX Dante Transmitter with 4 Channels of Balanced Mono Inputs User Manual

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SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply. Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.
- Please completely disconnect the power when the unit is not in use to avoid wasting electricity.

VERSION HISTORY

VERSION NO.	DATE	SUMMARY OF CHANGE
v1.00	15/02/2021	Preliminary release (RDV1)

INTRODUCTION

This 4-channel analogue audio to Dante output transmitter is easy to use and convenient to install. Thanks to the integrated support for Dante technology which extends and routes audio across standard Ethernet networks, this unit forms an important part of an easier and more flexible system for managing large audio systems than traditional point-to-point physical wiring. Dante does away with the bundles of heavy, expensive, multi-core analogue audio cables and replaces it with low cost, and easy to manage, Cat.5e or Cat.6 cables while maintaining the high quality expected from uncompressed digital audio. Due to the nature of packet-based Ethernet data transmission, there is no need to worry about the traditional enemies of long distance audio extension, such as analogue signal interference, crosstalk, or signal attenuation. All of this is provided with the absolute minimum of latency (typically around 1ms). The unit is equipped with four analogue mono audio inputs and one Dante output port which can transmit up to 4 digital audio channels and is compatible with any standard Dante audio receivers that the audio might be routed to. Each audio input can optionally supply phantom power (5v or 48v) if needed by a connected audio source, such as a microphone. It is powered directly by PoE (Power over Ethernet) which allows for increased installation location flexibility. Basic device configuration is provided by serial over USB while routing and network configuration management is provided via 3rd party control software.

APPLICATIONS

- Home Theaters
- Classrooms
- Lecture Halls

PACKAGE CONTENTS

- 1× 4 Balanced In, Analogue Audio to Dante
- 4× 3-pin Terminal Block
- 1× Operation Manual

SYSTEM REQUIREMENTS

An active network connection from a switch or router that supports PoE (802.3af) for extension of Dante audio and to power the unit. Analogue audio source equipment such as microphones, media players, or PCs/laptops. 3rd party control software, such as Dante Controller from Audinate, is required to configure and manage audio routes between Dante endpoints.

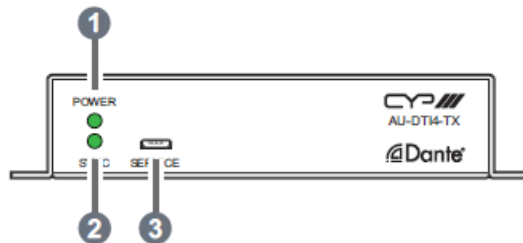
FEATURES

- One standard Dante output
- Four balanced analogue mono audio inputs
- Optional phantom power (5v or 48v) support on all inputs
- High quality ADC (Analogue to Digital audio Conversion) functionality with very low latency
- Compatible with existing Dante audio networks

- Powered directly by PoE (802.3af) provided by the network switch or router connected to the Dante port
- Simple and easy audio routing via 3rd party control software which is available for both Windows and macOS systems
- Basic device configuration via serial over USB

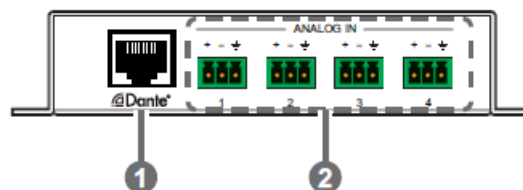
OPERATION CONTROLS AND FUNCTIONS

Front Panel



1. POWER LED: This LED will illuminate to indicate the unit is on and receiving power.
2. SYNC LED: This LED will illuminate to indicate the unit is actively connected to a valid Ethernet network.
3. SERVICE Port (USB 2.0 Micro-B): This port is used for serial control and firmware updates.

Rear Panel



1. DANTE Port: Connect to a standard Ethernet network switch or router, which is hosting Dante audio receivers, with a single Cat.5e/6/7 cable for transmission and routing of all available audio inputs.
2. Analogue IN 1~4 3-pin Terminal Blocks: Connect to the analogue mono outputs of devices such as audio players, PCs or microphones.

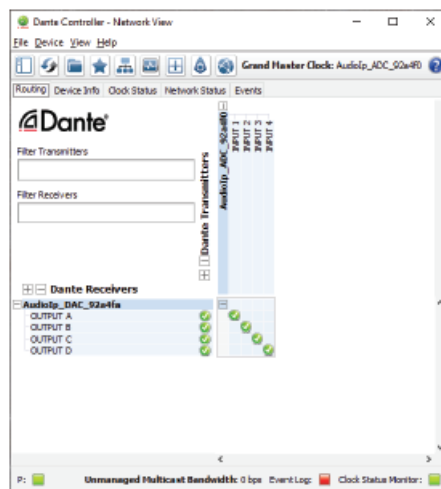
RS-232 Pinout and Defaults

Serial Port Default Settings	
Baud Rate	19200
Data Bits	8
Parity Bits	None
Stop Bits	1
Flow Control	None

Note: Serial control over this unit is available only via the USB Micro-B service port on the front of the unit. Connect the unit directly to the USB port on a PC or laptop and configure the virtual COM port to use the above settings.

Audio Routing Control

Discovery of Dante hardware and control over the behavior and routing of Dante audio is managed via 3rd party control software or hardware. The simplest available option is the Dante Controller software which is freely available directly from Audinate (www.audinate.com). This is a fully software based solution for controlling multiple audio transmitters and receivers, in a variety of configurations, providing full and detailed control over the audio handling of each individual unit. The Dante Controller software is available for both Windows and macOS systems.



Serial Commands (via USB)

COMMAND

Description and Parameters

help8

Show the full command list.

help N18

Show details about the specified command.

N1 = {Command}

? 8

Show the full command list.

? N18

Show details about the specified command.

N1 = {Command}

get fw ver8

Show the unit's current firmware version.

set factory default8

Reset the unit to the factory defaults.

set system usb fw update 8

Trigger the unit's firmware update state and load the new firmware file via USB.

COMMAND

Description and Parameters

set audio in N1 mute N2

Set the volume mute state for the specified audio input. Available values for **N1**:

- | | |
|---|--------------------|
| 1 | [Analogue input 1] |
| 2 | [Analogue input 2] |
| 3 | [Analogue input 3] |
| 4 | [Analogue input 4] |

Available values for **N2**:

- | | |
|-----|----------|
| ON | [Mute] |
| OFF | [Unmute] |

get audio in N1 mute8

Show the current mute state of the specified output. Available values for **N1**:

1	[Analogue input 1]
2	[Analogue input 2]
3	[Analogue input 3]
4	[Analogue input 4]

set audio in N1 pre-gain N28

Set the pre-gain volume level for the specified audio input type. Available values for **N1**:

1	[Analogue input 1]
2	[Analogue input 2]
3	[Analogue input 3]
4	[Analogue input 4]

N2 = 0-100 [Volume level]

COMMAND

Description and Parameters

get audio in N1 pre-gain8

Show the current pre-gain volume level for the specified audio input. Available values for **N1**:

- | | |
|---|--------------------|
| 1 | [Analogue input 1] |
| 2 | [Analogue input 2] |
| 3 | [Analogue input 3] |
| 4 | [Analogue input 4] |

set audio in N1 power mode N28

Set the phantom power voltage level for use by microphones connected to the specified audio input.

Available values for **N1**:

1	[Analogue input 1]
2	[Analogue input 2]
3	[Analogue input 3]
4	[Analogue input 4]

Available values for **N2**:

0	[No phantom power]
1	[5V]
2	[48V]

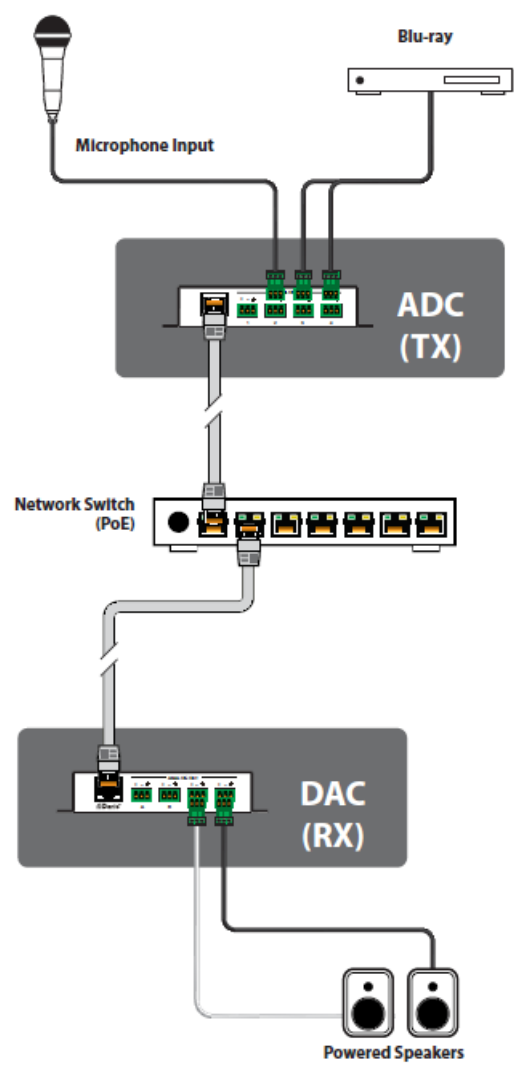
get audio in N1 power mode8

Show the current phantom power voltage level on the specified audio input.

Available values for **N1**:

1	[Analogue input 1]
2	[Analogue input 2]
3	[Analogue input 3]
4	[Analogue input 4]

CONNECTION DIAGRAM



SPECIFICATIONS

Technical Specifications

Ethernet Bandwidth	100Mbps
Input Ports	4×Analogue Mono (3-pin Terminal Block)
Output Port	1×Dante (RJ-45)
Service/Control Port	1×USB 2.0 (Micro-B)
Baud Rate	19200
Power Supply	PoE (802.3af)
ESD Protection (HBM)	±8kV (Air Discharge) ±4kV (Contact Discharge)
Dimensions (W×H×D)	128mm×25mm×108mm [Case Only] 128mm×25mm×110mm [All Inclusive]
Weight	351g
Chassis Material	Metal (Aluminum)
Chassis Colour	Black
Operating 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)
Power Consumption	3.3W

Audio Specifications

Digital Audio

Dante Output	
LPCM	
Max Channels	4 Channels
Sampling Rate (kHz)	44.1, 48, 88.2, 96
Bitstream	
Supported Formats	None

Analog Audio

Analogue Input	
Max Audio Level	4Vrms
Impedance	42.3kΩ
Type	Balanced

Cable Specifications

Dante Audio Cable Length (Per network segment)	
Ethernet Cable	
Cat.5e/6	100m
Cat.6A/7	100m

ACRONYMS



ACRONYM	COMPLETE TERM
ADC	Analogue-to-Digital Converter
Cat.5e	Enhanced Category 5 cable
Cat.6	Category 6 cable
Cat.6A	Augmented Category 6 cable
Cat.7	Category 7 cable
DAC	Digital-to-Analogue Converter
dB	Decibel
GbE	Gigabit Ethernet
Gbps	Gigabits per second

IP	Internet Protocol
kHz	Kilohertz
LAN	Local Area Network
LED	Light-Emitting Diode
LPCM	Linear Pulse-Code Modulation
MAC	Media Access Control
MHz	Megahertz
PD	Powered Device
PoE	Power over Ethernet
PSE	Power Sourcing Equipment
SNR	Signal-to-Noise Ratio
THD+N	Total Harmonic Distortion plus Noise
USB	Universal Serial Bus
Ω	Ohm

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Documents / Resources

 	<p>CYP AU-DTI4-TX Dante Transmitter with 4 Channels of Balanced Mono Inputs [pdf] User Manual</p> <p>AU-DTI4-TX, Dante Transmitter with 4 Channels of Balanced Mono Inputs, AU-DTI4-TX Dante Transmitter with 4 Channels of Balanced Mono Inputs</p>
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References

-  [Audinate - Maker of Dante, Pro AV's Leading Networking Technology](#)