

2-CHANNEL DANTE® DECODER/POWER AMPLIFIER

Quick Start Guide

The AC-DANTE-AMP-2CH is a combination 25W/RMS (@4 Ω , 12.5 W/RMS @ 8 Ω) 2-channel audio power amplifier and Dante® Audio (only) decoder. Encrypted Dante audio is input via the designated Dante Audio network RJ-45 port, undergoes decoding from Dante digital into analog, and outputs speaker level signal from a pair of secured, 2-pin terminal block connectors, and line-level audio by way of a 5-pin terminal block connector. AC-DANTE-AMP-2CH supports sampling rates of 44.1kHz, 48kHz, 88.2kHz, and 96kHz with 16-, 24-, and 32-bit word lengths encoded in either the Dante® audio or AES67 format.



Connecting the Device

- 1 Connect the cable attached to the 24VDC-5A power supply housing to the AC-DANTE-AMP-2CH Decoder/Amplifier DC/5V input port. Connect the AC mains power cord to the 24VDC-5A power supply adapter and plug it into a properly grounded power outlet.
- Note: The AC-DANTE-AMP-2CH does not support PoC or PoE. It is required to be locally powered using the provided 24V-5A power supply unit.

The green, front panel POWER LED will illuminate indicating the AC-DANTE-AMP-2CH is powered on.

- 2 Connect a CAT5e (or better) cable between a computer running the Dante® Controller software and the network switch.
- 3 Connect a CAT5e (or better) cable between the DANTE® port on the AC-DANTE-AMP-2CH and the network switch. The AC-DANTE-AMP-2CH will be automatically discovered using the Dante® Controller software.



- Note: <u>Device names depicted in diagrams may differ from the actual device</u> referenced throughout this guide.
- 1

Both the computer running Dante® Controller software and the AC-DANTE-Note: AMP-2CH must have a physical connection to the Dante[™] network for the AC-DANTE-AMP-2CH to be discovered by Dante[™] Controller.

Caution

DO NOT MAKE AMPLIFIER CONNECTIONS WITH THE UNIT POWERED ON!

4 If the AC-DANTE-AMP-2CH will be powering passive loudspeakers, strip back a ¼" portion of the left channel speaker wire marked "+" and insert it into the port on one of the supplied 2-pin terminal blocks that will correspond with the LEFT "+" speaker output lugs on the amplifier. Secure in place using the captive screw; avoid overtightening. Repeat this process with the "–" wire and the LEFT "–" block port. Duplicate this process for the Right Channel speaker wire. Push both prepared terminal blocks into their matching ports on the AC-DANTE-AMP-2CH.

▲ Caution: Observe speaker impedances. Only use speakers where the total impedance will remain constant between 4 Ohms and 8 Ohms per channel. Multiple speakers per channel must maintain an average between 4 Ohms and 8 Ohms. Both channels must present the same impedance load to the amplifier. **NEVER** connect this amp using speaker level to a powered speaker, regardless of whether it is designed to accept a speaker-level input.

5 If the AC-DANTE-AMP-2CH will be connected to a multi-zone distributed audio amplifier, use the supplied 5-pin terminal block to prepare an interface cable appropriate to facilitate the correct connection between the devices. Some distributed products have balanced inputs requiring direct-wire input or an identical 5-pin terminal block. Observe polarity when connecting or assembling a cable.

If connecting the AC-DANTE-AMP-2CH to a device with an RCA-type input, AVPro Edge recommends using the AC-CABLE-5PIN-2CH balanced to an unbalanced pre-made adapter.

When modifying a cable, follow the instructions in the section above titled Line Level Audio Output Wiring Configuration for converting the 5-pin terminal block from balanced output to unbalanced output. Observe polarity when connecting or when assembling a cable.

Device Configuration

Configuring the AC-Dante-AMP-2CH requires the installation of Audinate's Dante Controller software onto a computer that will be connected to the Dante network.

Dante Controller is used to configure network settings, signal latency, audio encoding parameters, Dante flow subscriptions, and AES67 audio support. The latest version of Dante Controller may be found at: <u>https://www.audinate.com/products/software/dante-controller</u>; including supplementary instructions that may be obtained via the online help support tool, located under the Help tab in Dante Controller.

Basic Navigation and Dante Flow Subscription

By default, Dante Controller opens with the Routing tab displaying Dante devices discovered on the network and organized according to transmitter or receiver status. Signal routing from Dante encoders (transmitters) to Dante decoders (receivers) is achieved by clicking the boxes located where transmit and receive channels intersect. Successful subscriptions are denoted by green check mark icons.



1	Transmitters	Discovered Dante encoders
2	Receivers	Discovered Dante decoders
3	+/-	• Select the (+) to expand or (-) to collapse view
4	Device Name	 Displays the name assigned to the Dante device Device name is customizable in Device View Double-click to open Device View
5	Channel Name	 Displays the name of the Dante audio channel Channel name customizable in Device View Double click associated Device Name to open Device View
		 Tip: Hovering the mouse over the subscription indicator symbol will provide further details about the subscription, which may be useful in troubleshooting
6	Subscription Window	 Click the box to create a unicast subscription between the overlapping Subscription in process Subscription successful Subscription error Subscription warning Device part way through setting up a subscription

Changing Device Name and Encoding Configuration

To configure the AC-DANTE-AMP-2CH audio stream, open the Device View by double-clicking the Device Name for the AC-DANTE-AMP-2CH and navigate to the Device Config Tab.

🧕 Dante C	Controller - D	Device View (DANTE-E	-844886)		– 🗆 🗙	
File Device	es View H			DANTE-E-844886 V	0	
Transmit St	atus Device	Config Network Confi	g AES67 Config			
	1—	CRename Device	386	Apply		
Sample Rate Sample Rate: 48k This device does not suppor sample rate configuration.		18k v not support nfiguration.	Sample Rate Pull-up:			
	3	Encoding Encoding: PCM	24 🗸	Clodking	-4	
	5—	Device Latency	Latency: 1.0 m	sec V		
		Reset Device	Reboot	Clear Config		
			•	-		
1	Devio Nam	ce e	De De ne	vice Name for the AC- vice Name can be cha w name and then click	DANTE-AMP-2CH nged by typing a apply	
2	Samp	ole Rate	• Se • 44	t AC-DANTE-AMP-2CH .1, 48, 88.2, 96 kHz sar	PCM sample rate nple rates supported	
3	Enco	ding	• Se	t the bit depth of the s	ampled input signal	
4	Clock	king	• En	able/Disable unicast d	elay requests	
5	Devio Later	ce ncy	 Se 1, 2 	t latency for subscribe 2, and 5-millisecond la	d Dante flows tencies are supported	
6	Reboot •			Reboot the AC-DANTE-AMP-2CH		
7	Clear	· Config	• Fa	ctory Reset Settings		

Network Configuration

DHCP for the AC-DANTE-AMP-2CH is enabled by default and will automatically be assigned an IP address when connected to the Dante network. Additionally, a static IP address can be assigned by opening the Device View for the AC-DANTE-D and navigating to the Network Config tab.

1	Automatic IP Assignment	٠	Check this button to enable DHCP for automatic IP address assignment
2	Manual IP Assignment	٠	Check this button to enable manual (static) IP addressing
3	IP Address	•	Enter the desired IP address
4	Subnet Mask	٠	Enter the desired subnet mask
5	DNS Server	٠	Enter the domain name server
6	Default Gateway	٠	Enter the default gateway
7	Reboot Device	٠	Reboot the AC-DANTE-AMP-2CH
8	Clear Config	٠	Factory reset the AC-DANTE-AMP-2CH

y 📧 🖤 🕶 🛄 🖬	DATTE-E-644666
ransmit Status Device Config Netv	ork Config AES67 Config
	Danks Bard and an
	Current:
	New: V
	This feature cannot be configured
	Addresses
	Addresses
1	 Obtain an IP Address Automatically (default)
2	Manually configure an IP Address
3	IP Address: . .
4	Netmask: . .
5	DNS Server:
6	
0	Gateway:
	Apply Revert
	- Paret Davies
	Reset Device
	Reboot Clear Conng

Warning:

Manually setting the AC-DANTE-AMP-2CH IP address to a different subnet from the Dante Controller computer will result in a loss of communication between the Dante Controller and the AC-DANTE-AMP-2CH

AES67 Audio Stream Configuration

The AC-DANTE-AMP-2CH supports multicast reception of AES67-encoded audio to compatible non-Dante devices. AES67 multicast reception can be configured by opening the Device View by double-clicking the AC-DANTE-AMP-2CH Device Name and navigating to the AES67 Config tab.

👱 Dante Controller - Device View (DANTE-E-844886) — 🗆 🗙			
File Devices View Help			
Transmit Status Device Config Network Config AES67 Config	1	AES67 Mode	 Enable/Disable AES67 multicast flows for compatible non-Dante devices
1 Current Disabled New Disabled v	2	RTP Multicast Address Prefix	 Displays current RTP multicast prefix Type in a new RTP multicast prefix and click Set to apply
RTP Multicast Address Prefix	3	Reboot	Reboot the AC-DANTE- AMP-2CH
Current Prefix: Not Set New Address Prefix: Set	4	Clear Config	• Factory Reset the AC- DANTE-AMP-2CH
Reset Device Reboot Clear Config 3 4			

PLEASE REFER TO THE AC-DANTE-AMP-2CH MANUAL FOR MORE DETAILED INSTRUCTIONS ON SETUP AND USE.

Troubleshooting

- Verify Power Check that the power supply is properly connected and is outputting 12V.
- Verify Connections Check that all cables are properly connected and/or terminated where applicable.
- Verify Terminations Ensure you are using a minimum of CAT 5e UTP or STP without breaks such as keystones, punch downs, or other interconnectors. Field terminatable plugs are recommended.
- LOW Line Level Audio Out Check the rear panel LINE OUT Control setting and the settings in the API. Make sure the Volume Limit is set to 0 dB (if desired) and is not at a setting that is lowering the overall device output.
- NO Line Level Audio Out Check if the device has been placed into "Mute". Make sure the 5-pin terminal block for Line Out is seated firmly into the port. Verify the unit is powered on, and that Dante data is streaming into the device. Check that the Dante RJ-45 connector is firmly seated into the port.
- LOW Speaker Level Audio Out Check the rear panel SPKR OUT Control setting and the settings in the API. Make sure the Volume Limit is set to 0 dB (if desired) and is not at a setting that is lowering the overall device output.
- NO Speaker Level Audio Out Check if the device has been placed into "Mute". Make sure the 2pin terminal block for each channel is seated firmly into each port. Verify the unit is powered on, and that Dante data is streaming into the device. Make sure at each speaker and on each 2-pin terminal block the wire is not frayed.
- The device cannot be controlled Verify RS-232 connections are properly wired and are using the pin arrangement depicted in the diagram on page 13. Make sure the 3-pin terminal block is firmly seated into the RS-232 port. If IP controlled, verify all category wiring connections and the cable is terminated to either the TIA/EIA T568A or T568B standards.

Have a question or need assistance? Don't hesitate to contact us!

Support: +1 605-274-6055 USA Toll Free: 877-886-5112 Email: Support@AVProEdge.com

