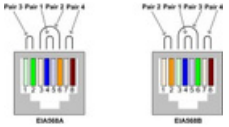
Specifications

Specifications	
Environment	Quad single-channel balanced analog audio and Dante audio.
Devices	Analog audio equipment and Dante professional audio equipment.
Connectors	Two (2) 6-pin phoenix connector, for Quad single-channel balanced analog audio-in. Two (2) 6-pin phoenix connector, for Quad single-channel balanced analog audio-out. One (1) RJ45S for Cat 5e/6 unshielded or shielded twisted pair, for Ethernet connection. One (1) 2.1mm jack, for power.
Maximum Distance	1) Network connection: Use Cat5e/6 at 330ft (100m) from Ethernet Switch. 2) Balanced 2CH analog audio connection using a MuxLab 500028 Stereo HiFi Balun: Use Cat5e/6 at 3250ft (1km) from 500028 Stereo HiFi Balun. 3) Balanced and Unbalanced connections directly connected to analog audio equipment: See analog audio equipment for maximum distance specifications. *Note: When installed in an electrically noisy environment, an STP cable must be used. Also, cross-connection reduces the effective distance depending on the grade of twisted cable used.*
Signal Protocol/Standard	Dante
Bandwidth	Analog: 20Hz to 20KHz, Network: TBD.
RJ45 Pin Configuration Reverse Polarity Sensitive. Use EIA/TIA 568A or 586B straight-through wiring.	***RJ45 Link*** Pin 1 (R) Pin 2 (T) Pin 3 (R) Pin 6 (T) Pin 4 (R) Pin 5 (T) Pin 7 (R) Pin 8 (T) 
Cables Note: Cables not included.	One (1) Cat 5e/6 or better twisted pair cables required. Eight (8) Quad single-channel balanced audio cables with 3-pin phoenix connectors (for audio-in and audio-out).
Power Source	This device supports PoE (PD), an external power supply is not included. It is intended to be powered via a PoE (PSE) Ethernet Switch. If required, an optional power supply may be purchased separately.
PoE	IEEE 802.3af
Power Consumption	4.5W
Temperature	Operating: 0° to 40°C Storage: -20° to 85°C Humidity: Up to 95% non-condensing
Dimensions	4.4" x 4.6" x 1.0" (111mm x 120mm x 25mm)
Weight	1.5lbs (0.7kg)
Compliance	Regulatory: FCC, CE, RoHS Flammability: 94V0
Warranty	2 years
Order Information	500765 Dante/Quad Channel Audio PoE Gateway
Accesories	500920 16-Port Rackmount Transceiver Chassis 500917 Wall Mount Transceiver Bracket Kit 500989 Univ. Power Supply 12VDC/1.25A LOCK US/UK/EU

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Dante/Quad Channel Audio PoE Gateway (500765)

Quick Installation Guide

Overview

The Dante/Quad Channel Audio PoE Gateway permits non-Dante compatible analog audio equipment to interface with Dante compatible professional audio equipment, and may be managed by the Audinate Dante Controller software.

The unit allows Dual two-channel or Quad single-channel full range (20Hz to 20KHz) balanced analog audio signals to be transmitted over the network to Dante compatible professional audio equipment. Dual two-channel or Quad single-channel balanced analog audio signals may also be received from Dante compatible equipment in the same manner. The unit may be connected via Cat5e/6 cable up to 330ft (100m) from an Ethernet Switch.

The Dante/Quad Channel Audio PoE Gateway includes four single-channel balanced analog audio-in and four single-channel balanced analog audio-out ports, via phoenix connectors. The Quad single-channel balanced analog audio-in ports may be connected to line level balanced analog audio signals or to line level balanced microphones. The Quad single-channel balanced analog audio-out ports may be connected to balanced analog audio amplifiers supporting line level inputs, such as the MuxLab 500217 Audio Zone Amplifier 100W, or to two pairs of powered speakers for direct sound output.

The device supports PoE (PD) and may be powered by a PoE (PSE) Ethernet Switch.
The IP Address can be change from DHCP to static.

Applications

Interfacing networked Dante digital audio equipment with 2CH analog audio equipment in professional and commercial audio applications over long distances.

Installation

1. Identify theconnectors on the Dante/Quad Channel Audio PoE Gateway unit as indicated on the product labels,seethe above front and rear product views for further details.

2. Locate the Dante/Quad Channel Audio PoE Gateway such that the distance between this unit and both the Ethernet network and analog audio equipment is within MuxLab specifications (see Specifications table for further details).

3. Connecting the Dante/Quad Channel Audio PoE Gateway:

   3a. Connect the RJ45 LINK connector of the Dante/Quad Channel Audio PoE Gateway to the Ethernet network (typically to an Ethernet Switch) using CAT5e/6 UTP or STP cable, while respecting the maximum cable distance in the Specification table.

   3b. Connect the analog single channel audio ports of the Dante/Quad Channel Audio PoE Gateway to analog audio equipment.

   Note that two of the single channel analog audio ports (ports 1 and 2) can also be used to connect to a microphone. A sliding switch is available on the front panel to select the setting as follows:

   - Line: For line level amplifiers and other audio equipment.
   - Mic: For dynamic microphones.
   - 48V: For microphone requiring phantom power.

   Each analog audio connection can be accomplished one of three possible ways:

   i) Using a MuxLab 500028 Stereo HiFi Balun, where Cat53/6 UTP cable is installed between the 500765 and the 500028 (Balanced portion of the connection), and 2CH analog RCA audio cable is used between the 500028 and 2CH analog audio equipment (Unbalanced portion of the connection). Note that the connection between the 500765 and 500028 is Balanced, and supports extended distances as per the specification table.

   ii) Using a Balanced connection directly between the 500765 and Balanced analog audio equipment, while respecting the maximum cable distance in the Specification table.

   iii) Using an Unbalanced connection directly between the 500765 and Unbalanced analog audio equipment, while respecting the maximum cable distance in the Specification table.

4. Input Volume Adjust: Each single channel analog audio input supports a volume adjustment on the front panel. Adjust the volume independently for each input as required.

5. Use the free Dante Audinate Controller software found on the Audinate website (https://www.audinate.com/products/software) to manage the connectivity between the Dante/Quad Channel Audio PoE Gateway and other Dante audio equipment. Both point-to-point and point-to-multipoint connections are supported.

   5a. You will need to use an Ethernet Switch with Gigabit ports and DHCP Server support. In addition IGMP Protocol support is required for the multipoint-to-multipoint case. Verify that the Ethernet Switch is configured correctly, that the DHCP Server is enabled, and that the IGMP Protocol is enabled for multipoint-to-multipoint applications. See the operating manual for more information about configuring the Ethernet Switch.

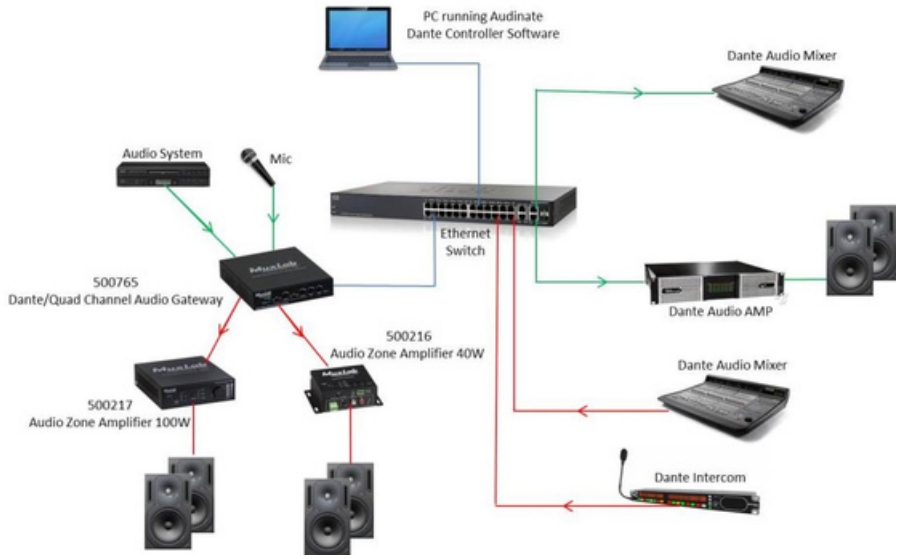
   5b. Ensure that all Dante/Quad Channel Audio PoE Gateway devices are properly connected to the Ethernet network and to the analog audio equipment.

6. Powering the Dante/Quad Channel Audio PoE Gateway via an external power supply is only necessary where PoE (PSE) is unavailable. If PoE is unavailable, connect a 12 VDC 1.25A universal power supply (part number 500989 – sold separately) to each Dante/Quad Channel Audio PoE Gateway unit and to an AC power outlet. If power is present, the blue power LED on each unit will illuminate.

   Note: Power 'ON' the Dante/Quad Channel Audio PoE Gateway only after all connections have been made.

7. Power 'ON' the audio equipment and verify the sound quality. The yellow Link LED should flash when active.

8. The following diagram illustrates a typical configuration.



Troubleshooting

The following table describes some of the symptoms, probable causes and possible solutions in regard to the installation of the Dante/Quad Channel Audio PoE Gateway:

Symptom	LEDs		Probable Cause	Possible Solutions
	Power	Link		
No Sound	OFF	OFF	No Power	• Check power connections • Check PoE Ethernet Switch setup or Power Supply
No Sound	ON	OFF	No Ethernet Link	• Check Ethernet Switch status • Check UTP and audio cables and connections
No Sound	ON	ON	Input volume level	• Check input port volume level
Microphone not working	ON	ON	Configuration	• Microphones should be on ports 1 and/or 2 • Check Mic sliding switch position on front panel • Check input port volume level
Poor or choppy Sound	ON	ON	Configuration	• Check cable length • Check the audio Cable Quality • Check if IGMP is enabled on the Ethernet Switch
Poor sound when powering up nearby equipment	ON	ON	Configuration	• Use STP cables

If you still cannot diagnose the problem, please call MuxLab Customer Technical Support at 877-689-5228 (toll-free in North America) or (+1) 514-905-0588 (International).