STEP 3: Understanding Dante

Dante is not just a means for an audio device to communicate with a computer, but also a means for an audio device to communicate directly to other Dante-enabled devices. ANY Dante devices will be able to interact, regardless of manufacturer, on a Dante network. Clocking can be managed automatically between devices, and device names, states and settings are stored on the chip within every Dante device on the market.

For this reason there is really nothing unique about the Aurora as a Dante device. The software and support resources necessary for successful operation are available from the manufacturer of the Dante chips used in products like the LT-DANTE: Audinate.

We suggest visiting Audinate.com to explore the wealth of materials available on setting up Dante equipment with your audio system.

STEP 4: Dante Hardware Setup

Ethernet Connections: Dante involves connecting devices through Cat5e or Cat6 ethernet cables. In simple systems, devices can be connected directly point-to-point with these cables (an Aurora/DANTE connected directly to your computer's ethernet port, for instance). In most cases, however, Dante systems revolve around a network switch. Choosing an appropriate switch and configuring it appropriately is key to enjoying a successful Dante system. The Audinate support resources can be invaluable for this.

Routing: To configure the Aurora to receive signals from the Dante network, set TO ANALOG OUT and TO DIGITAL OUT to "LSLOT IN". Routing streams to and from other Dante devices and computers will be managed from the Dante Controller Software, which will be discussed in Step 5.

Clocking: Dante is somewhat unique in regards to clocking. The Dante chips used in ALL Dante products are capable of sending and receiving accurate and jitter-free clock signals over the ethernet connection between devices. For this reason, we recommend setting the Aurora SYNC SOURCE to "LSLOT IN", so that Aurora can slave to the Dante clock signal. It is possible to force the Aurora to be the master in a Dante network, but in most cases the best practice is letting the Dante network manage the clock relationships. The support resources on Audinate.com will be critical for understanding clock relationships and options here.

STEP 5: Dante Software Setup

There are two software applications that are important to use with your Aurora/DANTE for wither Windows or OS X:

Dante Controller: an application that allows control and configuration of Dante devices. This powerful tool allows users to route signals from any Dante source to any Dante destination on the network. Each device can be configured in terms of clocking, latency, device name, and transmission characteristics. Routing is achieved through a grid system, where "flows' are defined between a transmitter and a receiver. Dante Controller can be downloaded from audinate.com > products > software: dante controller. There is extensive documentation and video tutorial resources here as well

Dante Virtual Soundcard: DVS turns your OS X or Windows computer into a Dante device, and therefore your Aurora/ DANTE into an audio interface to use with your favorite DAW and multimedia software. You can route audio to and from your computer with the Dante Controller, once Virtual soundcard is installed. DVS can present up to 64 channels to your audio software, and the streams can come from any Dante Devices on your network. DVS is available for a $29.99 license fee, and can be purchased and downloaded from www.audinate.comn > products > software: dante virtual soundcard. There are numerous support resources on this page as well.

LT-DANTE for AURORA *QUICK START GUIDE*

Thank you for purchasing the LT-DANTE from Lynx Studio Technology. This document will guide you through the installation process in a few easy steps, and point to resources for configuring and using your Aurora-Dante system.

Check the contents of the shipping carton. It should include the following:
- ❑ LT-Dante Card in an anti-static bag
- ❑ $^1/_2$" Standoff Post

Requirements
- ❑ A Lynx Aurora 8, Aurora 16, Aurora 16VT with Firmware Revision 28 or above
- ❑ Phillips screwdriver for removing the Aurora top cover and securing the LT-Dante
- ❑ Windows PC with Windows 7 (32-bit or 64-bit), Windows 8, or Windows 10, OR a Macintosh computer with OSX (10.9.5 or higher); 1GB RAM;
- ❑ Standard wired Ethernet network interface (100Mbps or Gigabit). On OS X, official Apple USB to Gigabit and Thunderbolt to Gigabit network adaptor cables are supported. A Gigabit (1000Mbps) interface is required for channel counts above 32x32 @48kHz. Wireless LAN (Wi-Fi) Ethernet interfaces are not supported.
- ❑ CAT5e or CAT6 Ethernet cable.

Support
If you have questions or comments regarding the operation of your LT-Dante, please check the information resources on the Support section of the Lynx web site at www.lynxstudio.com > support. Support resources for general Dante configuration and operation are available at www.audinate.com > support.

INSTALLATION INSTRUCTIONS

STEP 1: Make sure that your Aurora has a compatible firmware version

The LT-DANTE requires your Aurora converter to have Firmware Version 28 or later. This should be verified prior to installing and configuring the LT-DANTE card. To determine what firmware revision your Aurora has, press the TRIM and POWER buttons at the same time when the Aurora is in StandBy. You will see a sequence of flashing lights on the Aurora front panel. In the meter display, if an LED flashes continuously over the numbers 2 in the Input row and 8 in the output row, or a higher number (2+9, 3+1, etc), then your Aurora firmware is already compatible with the LT-DANTE. If pressing Power and Trim does not cause any LEDs to flash, or causes a single number to flash, or any sequence less than 2+8 (2+7, 2+4, etc.), then your Aurora firmware needs to be updated.

The Aurora firmware can be updated via an installed LT-USB or LT-FW card, with a MIDI Interface, or through a Lynx AES16 /AES16e card. The Aurora firmware updaters are on the lynxstudio.com website in the Support > Downloads section.

STEP 2: Install the LT-DANTE into the Aurora

1. Remove the AC power cord and take the top cover off of the Aurora 16 or Aurora 8. There are seven large screws plus one small screw near the center of the front faceplate that hold the top cover on.

2. There is a jumper setting on the Aurora that corrects the current draw for an Aurora with an LT-DANTE. If you are updating a Rev A. Aurora, remove jumper W3 from the JP6 header on the Aurora main board. If you are updating a Rev B Aurora, slide switch 4 (labeled W4 on PCB) of SW1 to the OFF position (towards back panel). If you are replacing an existing LSLOT card for the LT-TB, it is likely that your Aurora is already in the correct state. Verify before proceeding.
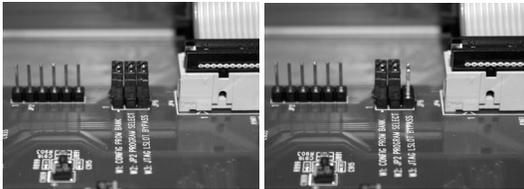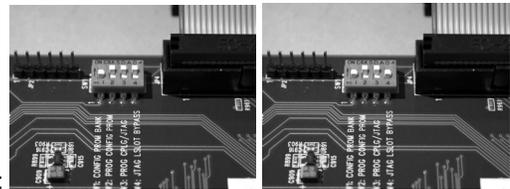
Rev A: Rev B:

3. Remove the LSlot Expansion Port cover above the AES I/O Ports by removing the two mounting screws. Set these two screws aside, as they will be used to secure the LT-DANTE after installation. Note: if you are replacing an existing LSLOT card, there will be no cover to remove.

4. Remove the screw from the Aurora circuit board that is adjacent to the JP1 connector and the white serial number/barcode label. Set the screw aside for reuse.

5. Install the standoff post (included with the LT-DANTE) in this same hole.

6. Ground yourself to earth ground, then remove the LT-DANTE from its protective anti-static bag.

7. Attach the multi-pin connector on the back edge of the LT-DANTE to the LSlot connector (JP1) on the Aurora main board. When the LT-DANTE connector pins appear to be lined up correctly with the Aurora LSlot connector, press gently until the connector snaps into place. In some cases, the board may need to be gently flexed for the LSlot connector pins to line up correctly with JP1 on the Aurora main board.

⚠️ ***Use caution to insure that the pins line up as shown.***
Incorrect installation could damage the unit.
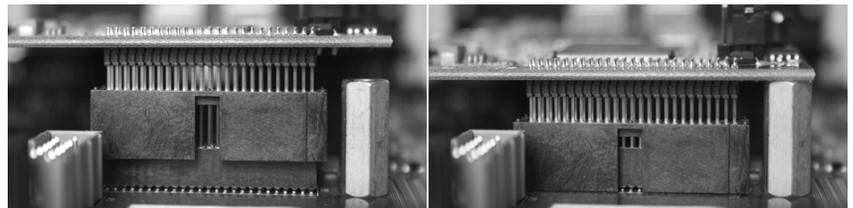
8. Secure the LT-DANTE with three screws; one into the standoff and two into the back panel of Aurora. Keep screws loose until the LT-DANTE is properly aligned, then tighten snugly, but do not over tighten.

9. Reinstall the Aurora top cover using the eight screws that were removed in step 1. Do not over tighten the small screw near the center of the front faceplate, as it is easily damaged.

10. Plug in and power up the Aurora using the front panel standby switch. You can see the LT-DANTE from the slits in the Aurora top cover. If the green LED on the LT-DANTE flashes, then installation was successful. If the LED does not light, unplug the Aurora and re-mount the LT-DANTE, making sure that it is securely attached. Then plug in and power up again. If the green LED still does not light, contact Lynx Customer Support at 714-545-4700 x206.