

ADX-3200 ANALOG INTERFACE QUICK OPERATION GUIDE (Preliminary)

• General Description

The ADX-3200 Analog Dante Interface is an ideal all-in-one solution to providing Dante networking capability to a mobile unit or studio facility, enabling networked announce booths, interview positions, etc. Networked audio systems provide unmatched flexibility, easy and inexpensive fiber interconnection, easy expansion, reliability, and optimum audio quality.

The ADX-3200 is a new product which replaces the proven ADX-2400N Analog Interface. The 3200 provides 32 channels onto and off of the Dante network, is smaller and lighter than the 2400, and priced considerably lower. It also includes built-in fiber ports on ST connectors, and a 16x8 four-wire PL matrix to provide the PL assignment functions of the familiar 'thumbwheel' panels.

ADX-3200 Features

- Industry-standard Dante networking protocol
- 32 channels transmitted to network, 32 channels received from network
- 24 local analog inputs, 24 local analog outputs, all +4 dBm balanced
- 16 x 8 four-wire PL matrix allows 'thumbwheel' assignment of network PL drops
- Front panel control of preamp gains, IFB configurations, etc. in connected ADX-120s and ADX-140s
- Dual RJ45 Cat5E network connections
- Dual ST single-mode bidirectional fiber network connections no switch or media converter required
- Optical power monitoring on front panel to insure integrity of fiber links
- Front panel headphone and VU monitoring for all paths
- Internal tone generator for all local and network outputs
- Straight-forward front panel operation with status and fault monitoring
- Dual power supplies with fault monitoring for maximum reliability
- Compact, lightweight unit 1RU and only 9 inches deep
- Fully compatible with all Dante-enabled products
- Highest quality components. Designed and manufactured in the USA



QUICK OPERATION GUIDE – ADX-3200

Selecting Output Channels

Press 'OUTPUT SELECT' button, and turn knob until desired channel is selected. Repeated presses of the 'OUTPUT SELECT' button will advance the selection to the first channel of the next group of eight individual channels.

There are 40 outputs accessible in this mode: the 24 local analog outputs ("Local" outputs), and the first 16 network transmitter channels that place audio on the Dante Network ("Net" outputs). The last 16 network outputs are accessible by pressing the PL PORT SELECT button. This accesses the 16 network PL ports as TX/RX pairs.

The VU Meter and Headphone Jack will follow the output selection.

Selecting the Source (for the current output)

The selected output may be fed from a variety of sources. The choices for most outputs are:

- Silence
- Local Input (the corresponding analog input channel)
- Net RX (the network receiver for this channel)
- 440 Hz Tone

Local outputs 17-24 do not have source selections. They are always the outputs for the 8 PL channels to which the network PL ports may be assigned.

Assigning PL Channels

When you press the 'PL PORT SELECT' button you can select any one of 16 '4-wire' network PL ports. They are Dante TX and RX channels 17-32.

On the network side, these may be routed via Dante to external PL devices, or PL ports on remote devices like the ADX-120 Announce Unit, or the ADX-140 XLR Interface.

Once a particular network PL port is selected, it may be assigned to any one of eight available PL channels in the ADX-3200 by pressing the "SOURCE / PL CHAN' button and turning the knob. This is equivalent to the familiar RTS thumbwheel assignment panel.

To Adjust Level (for current output)

The output level can be adjusted in 0.25 dB increments. Maximum gain is +12 dB. To adjust, press the 'LEVEL' button, and turn the knob.

We suggest that output levels only be adjusted in special circumstances. In most cases the levels should all be left in the Unity (0.00dB) settings.

To Adjust Headphone Volume

Press the 'HP VOLUME' button, and turn the knob. The bar graph display will show the knob 'position'.

• To Configure Menu Items

The system has a few configuration items which may be set by using the menu function. Press the 'MENU' button to enable the menu function. Turn the knob to select the desired menu item, then press the 'MENU SET' button. Turning the knob will now change the parameter for this item. When the desired selection is made, you can exit the MENU SET mode by pressing any other button. (See following section on menu items).

In addition, the MENU and MENU SET buttons are used to control the remote device (ADX-120 and ADX-140) menus for such things as preamp gain, IFB config, etc.

Accessing Remote Menus from the ADX-3200

To access these remote device menus, <u>double-click</u> the **MENU** button on the ADX3200. The display will say: SELECT REMOTE DEVICE. The **MENU** button will be flashing to indicate that a remote device is being accessed.

The menu display will look similar to this:

Use the knob to select the desired remote device. If there is no device name displayed to the right of the ID number, then there is no active device at this ID.

When the desired device is selected, press **MENU** again. This will access the menu of the remote device, and the menu might look like this (depending on the type of device and the selected item):

The configuration and status items may be selected using the knob. Once the desired item is selected, press the **MENU SET** button to allow changing that item's setting. Settings are saved automatically after about 10 seconds of inactivity.

Press either **MENU SET** or **MENU** to go back to the item select mode.

When you're done, the easiest way out of any of the menu modes is to just press the **OUTPUT SELECT** button. This will cancel all menu modes, and you won't have to step backwards out of them.



ADX-3200 REAR PANEL

• The Fiber Link

The interconnect between the mobile unit and the announce booth is single strand of single-mode (9/125) fiber. A second fiber may be used to provide backup for the primary link.

The fiber link uses wdm (wavelength-division multiplex) technology so that data in one direction uses one wavelength of light and data in the other direction uses a different wavelength. This allows both directions to be transmitted on a single fiber.

WDM requires that the transmit wavelength on one end match the receive wavelength on the other end and vice versa.

The ADX-3200 uses standard bi-directional SFP modules, which are accessible by removing the top cover of the unit.

The wavelengths for the ADX-3200 at the truck should be matched to the wavelengths in Fiber Ports 1 and 2 of the ADX-8000 Switch in the booth, or other remote switches. Use ADX-8000 Port 1 for the primary fiber and ADX-8000 Port 2 for the backup fiber. In this case, the ADX-3200 is operating with all its ports on the PRIMARY network, and the ADX-8000 will use its port 1 unless that fiber fails, in which case it will switch to port 2.

The ports may be used as all PRIMARY ports (on the primary network), or they may be configured as PRIMARY and SECONDARY network ports using the 'Network Config' function in Dante Controller. This is the redundant network mode.

If you're not using redundant networks, and you're using a switch other than the ADX-8000, only a single connection is allowed to the ADX-3200. Otherwise you will have created a network loop, and the network will not operate properly.

Contact Lance Design for more information.

Connecting the Truck End

- Connect the primary fiber to the PRI fiber connector on the rear of the ADX-3200 and the optional backup fiber to the SEC connector. If a separate switch is being used it may be connected to the 3200 with either the copper or fiber ports.
- Connect AC power to the power connector on the rear panel.
- Connect dry, line-level audio inputs and outputs as required. The analog inputs and outputs are +4dBm, balanced. Typically the first 16 inputs and outputs are used for mic outs, ifb ins, pgm ins, etc. The last 8 inputs and outputs are typically used for PLs and perhaps talkbacks (which can be mixed by assigning to an unused PL output).

Lance Design ADX-3200 Analog Pinout (Inputs and Outputs) Tascam/Protools Standard

Audio Channel	D-25 Pin
CH 1 +	24
CH 1 -	12
CH 1 SHLD	25
CH 2 +	10
CH 2 -	23
CH 2 SHLD	11
CH 3 +	21
CH 3 -	9
CH 3 SHLD	22
CH 4 +	7
CH 4 -	20
CH 4 SHLD	8
CH 5 +	18
CH 5 -	6
CH 5 SHLD	19
CH 6 +	4
CH 6 -	17
CH 6 SHLD	5
CH 7 +	15
CH 7 -	3
CH 7 SHLD	16
CH 8 +	1
CH 8 -	14
CH 8 SHLD	2

Audio	D-25 Pin
Channel	
CH 9 +	24
CH 9 -	12
CH 9 SHLD	25
CH 10 +	10
CH 10 -	23
CH 10 SHLD	11
CH 11 +	21
CH 11 -	9
CH 11 SHLD	22
CH 12 +	7
CH 12 -	20
CH 12 SHLD	8
CH 13 +	18
CH 13 -	6
CH 13 SHLD	19
CH 14 +	4
CH 14 -	17
CH 14 SHLD	5
CH 15 +	15
CH 15 -	3
CH 15 SHLD	16
CH 16 +	1
CH 16 -	14
CH 16 SHLD	2

Audio	D-25 Pin
Channel	
CH 17 +	24
CH 17 -	12
CH 17 SHLD	25
CH 18 +	10
CH 18 -	23
CH 18 SHLD	11
CH 19 +	21
CH 19 -	9
CH 19 SHLD	22
CH 20 +	7
CH 20 -	20
CH 20 SHLD	8
CH 21 +	18
CH 21 -	6
CH 21 SHLD	19
CH 22 +	4
CH 22 -	17
CH 22 SHLD	5
CH 23 +	15
CH 23 -	3
CH 23 SHLD	16
CH 24 +	1
CH 24 -	14
CH 24 SHLD	2

6 FEMALE CONNECTORS ON CHASSIS [INPUT AND OUTPUTS]