



### 1 DESCRIPTION

The Luna 12.8 Mic/Line Dante® I/O Interface is a cost-effective microphone/line Dante audio-over-IP (AoIP) interface in a 1U rack mount format.

Several models provide various configurations of balanced analog audio inputs and outputs. Each input accommodates microphone through line level signals with a range of -60 to +24dBu. +48V phantom power is individually switchable on each input. Output levels are configurable up to +24dBu.

RGB LEDs on the Luna's front panel show per channel audio levels and streaming status.

The Luna features an embedded web server, allowing configuration and monitoring of input and output levels. Routing is achieved using the Dante Controller.

Power is provided from a built-in universal AC power supply. Redundant power is available using an external 12VDC supply via a locking 2.1mm jack.

All units can also be operated in AES67 interoperability mode.

### 2 FEATURES

- 12x8 channels of Dante® audio-over-IP with AES67 interoperability
- 44.1, 48 or 96kHz sample rates with 32bit A/D and D/A conversion
- Balanced microphone/line level inputs with level range of -60 to +24dBu
- Switchable +48V phantom power on each input
- Balanced line level outputs with level range of 0 to +24dBu.
- RJ-45 for 8 Mic/Line Inputs and 8 Line Outputs XLR/TRS combo connectors for Mic/Line 9 thru 12
- RGB front panel LEDs provide per channel metering and stream status
- Built-in web server provides audio level configuration and monitoring
- Dual RJ-45 network jacks can be operated in redundant or switched mode.
- Built-in universal 90-260VAC 50/60Hz power supply.
- Auxiliary +12VDC input provides power supply redundancy.

### 3 MODEL INFORMATION

**The SAS Luna 12.8 Dante I/O interface provides:**

- Mic/Line inputs 1 thru 8 on SAS Standard RJ-45 connectors
- Mic/Line Inputs 8 thru 12 on XLR/TRS Combo Jacks
- Line Outputs 1 thru 8 on SAS Standard RJ-45 connectors

## 4 SPECIFICATIONS

<b>DANTE INPUT/OUTPUT</b>	
Type	100/1000Mb Ethernet
Connector	Dual RJ-45 operable as redundant Dante or as a network switch
Channels	8.8M – 8 input and 8 output channels 16.16M – 16 input and 16 output channels 32.32M – 32 input and 32 output channels 16.0M – 16 input and 0 output 0.16L – 0 input and 16 output 32.0M – 32 input and 0 output 0.32L – 0 input and 32 output
Audio formats	16, 24 and 32 bits per sample
Sample Rate	44.1kHz, 48kHz, 96kHz
Latency	0.15, 0.25, 0.5, 1.0 and 5.0ms
<b>ANALOG MIC/LINE INPUT</b>	
Type	Balanced
Input Level	-60 to +24dBu in 1dBu steps
EIN	-126 dBu Equivalent Input Noise @ -26dBu level setting
Phantom Power	+48V @ 10mA per channel max , software switchable
A/D converter	32 bit over sampling
Input Impedance	10K ohms
Dynamic Range [1]	>114dB
THD+N [2]	< -97dB
Frequency Response	@ 48kHz Sample Rate: 20Hz to 20kHz +0.1/-0.5dB @ 96kHz Sample Rate: 20Hz to 40kHz +0.1/-2.0dB
Connectors	3.81mm Terminal Block, DB-25 or RJ-45/StudioHub+GPIO
<b>ANALOG LINE OUTPUT</b>	
Type	Balanced
Output Level	-10 to +24dBu in 1dBu steps
D/A converter	32 bit over sampling
Load Impedance	2K ohms or greater
Dynamic Range [1]	>114dB
THD+N [2]	< -100dB
Frequency Response	@ 48kHz Sample Rate: 20Hz to 20kHz +0.1/-0.25dB @ 96kHz Sample Rate: 20Hz to 40kHz +0.1/-3.0dB
Connectors	3.81mm Terminal Block, DB-25 or RJ-45/StudioHub+GPIO
<b>GPIO</b>	
<b>Opto-isolated Inputs</b>	
Isolation	2,500 VAC <sub>RMS</sub>
Input Drive	4mA typical with internal 5V supply and internal 1K current limiting resistor
Input Voltage Range	Between 3V and 24V. Add external resistor above 24V to limit current.
<b>Relay-isolated Outputs</b>	
Isolation	1,500 VAC
Contact Rating	Up to 60 VDC/60VAC and 350mA, 600mW maximum
<b>LATENCY (48kHz, L24)</b>	
Analog Input to Dante Transmit	770.21 $\mu$ s
Dante Receive to Analog Output	713.05 $\mu$ s
<b>POWER</b>	
Built in Power supply	90-260VAC, 47-63Hz with IEC C-14 AC inlet
Redundant Power supply (Optional)	Supplied using an external +12VDC, 60W power supply with 2.1mm locking plug ASI part number for power supply: PWR1101
Power supplies function independently; use DC only, AC only or both at the same time for fail-over redundancy.	
<b>REGULATORY</b>	
FCC Part 48 Class A (US)	
CE Mark (EN55022 Class A EN55024)	
RoHS Compliant	
<b>GENERAL</b>	
Dimensions	1 RU, 19"(482mm) W x 6"(152mm) L x 1.75"(44mm) H
Weight	5 lb (2.2kg) max (32.32M)
Operating Temperature	0C to 40C in free air



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## 1. Introduction

This document explains how to setup an SAS Luna 12.8 Dante unit as part of your Dante network or stand alone with the Dante Virtual Soundcard running on a PC/Mac. These instructions assume a basic working knowledge of Dante network audio.

## 2. Requirements

- SAS Luna Dante device
- Audinate Dante Controller software  
<https://www.audinate.com/products/software/dante-controller>
- Web browser software (we recommend either Chrome, Firefox or Safari)
- (Optional) Dante Virtual Soundcard software.  
<https://www.audinate.com/products/software/dante-virtual-soundcard>

## 3. Setup

1. Connect your SAS Luna 12.8 unit to your Dante network using standard network cable.
2. Connect the power cord to the unit.
3. Install and configure Dante Virtual Soundcard (optional)
4. Connect channels using Dante Controller – inputs and outputs default to +14dBu level.

### **If you need to configure your I/O levels:**

1. The unit is set to use DHCP to assign an IP address by default. Run Dante Controller and find the unit's IP address in the "Primary Address" field on the Device Info tab. You can use the unit's MAC address (located on the label on the Luna) to verify you have the right one if there are more than one SAS Luna 12.8 unit on your network. The first 6 digits are displayed after the dash in the "Device Name" field as shown in Controller.
2. Open your web browser and enter the IP address as shown in Dante Controller
3. Open the Input/Transmit tab to modify your input levels or the Receive/Output tab to modify output levels for each device. Levels are relative to dBfs

### **NOTE:**

- ❖ The 4 XLR/TRS combo connectors on the back panel (J 9-12) are inputs 9-12
- ❖ All inputs and outputs on RJ45 jacks are SAS standard Orange Pair for Left Channel and Brown Pair for Right Channel
- ❖ Blue and Green Pairs are not used on the Luna