

## RACK-UP® SERIES

### Models RU-LB4 & RU-LB4P

### Line-Level Bi-Directional Network Interface

- Converts Standard Line-Level Audio Sources to Dante Network Channels
- Line-Level Inputs Accept Unbalanced -10 dBV or Balanced +4 dBu Signals with >18 dB Headroom
- Front-Panel Gain Adjustment with Dual-LED VU Meter for Each Audio Input
- Converts Four Dante Network Audio Signals to Balanced Line Level
- Line-Level Outputs Provide +4 dBu with >18 dB Headroom
- Signal LEDs Indicate Audio for Each of the Received Network Signal Channels
- Interfaces Four Dante Inputs and Four Dante Outputs
- High Resolution 24 Bit Analog to Digital and Digital to Analog Conversion
- Legendary RDL Analog Filtering Enhances Superb Audio Performance
- LED Indicators Show Network Sync Status
- Normal or Hot-Standby Operation from PoE (Model RU-LB4P)
- Equipped for Rack Mounting or Surface Mounting



The RU-LB4 modules are Dante audio network interface products compatible with line-level audio equipment inputs and outputs. These modules are designed to be mounted in equipment racks, closets, conference tables and on shelves or backboards in commercial/industrial installations.

**APPLICATION:** The RU-LB4 is a high quality converter that provides professional line-level outputs from four Dante network received audio channels. It also converts four professional or consumer line-level sources to Dante network audio channels.

#### Network to Line Level Interface Section

The RU-LB4 converts four Dante audio channels to balanced line level. Each output provides +4 dBu balanced for a network digital audio level of -18 dBFS. The professional output directly interfaces with other professional and commercial equipment without the need for additional gain. Crosstalk is below the noise floor between all outputs across the entire audio spectrum. The noise floor is better than 80 dB below operating level.

One front-panel green signal LED corresponds to each of the four Dante input channels. Received audio level is indicated on the variable-intensity LED indicator, facilitating setup when a networked computer is not connected at the module's location.

#### Line Level to Network Interface Section

The RU-LB4 converts four line-level audio sources to Dante networked digital audio channels. Each input is equipped with a front-panel gain trimmer and associated Dual-LED VU meter to facilitate optimal input gain adjustment. Each input supports the complete range of normal unbalanced -10 dBV and balanced +4 dBu line-level sources. Input gain adjusted according to the Dual-LED VU meter assures an operating level that preserves full headroom with the lowest noise floor.

The RU-LB4 is powered from an external 24 Vdc power supply, available separately. The RU-LB4P is equipped to operate from a PoE enabled network switch. The RU-LB4P will reserve power from the switch even while being powered from an external 24 Vdc supply. If PoE power and an external 24 Vdc supply are both feeding an RU-LB4P, the unit will run from the external supply and will seamlessly switch over to PoE power upon loss of the external supply.

The RU-LB4's superior performance specifications make it ideally suited to the most demanding installations, and an exceptional value in commercial networked audio systems.

The RU-LB4 is constructed in a durable, professional all-metal enclosure suitable for free-standing, surface-mounted or rack-mounted operation. This full-featured product is engineered and manufactured in the U.S.A for continuous duty in demanding installations. Built to last. Built to outperform.



**RDL**<sup>®</sup>  
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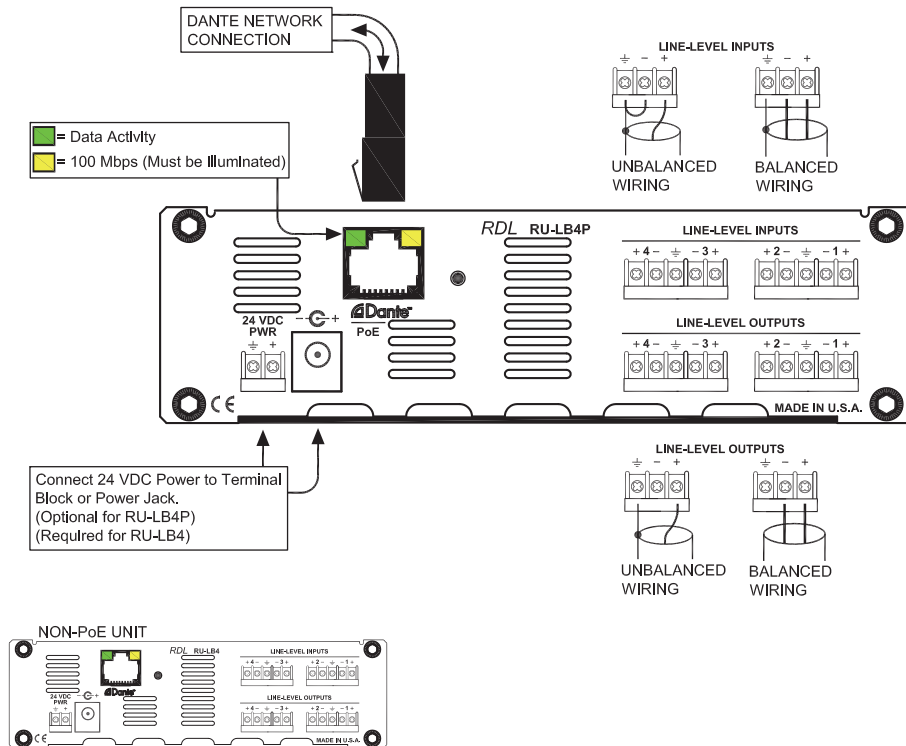
## RACK-UP® SERIES Models RU-LB4 & RU-LB4P Line-Level Bi-Directional Network Interface

## Installation/Operation



EN55103-1 E1-E5; EN55103-2 E1-E4

Typical Performance reflects product at publication time exclusive of EMC data, if any, supplied with product. Specifications are subject to change without notice.



### TYPICAL PERFORMANCE

Network Connector:	RJ45 with Link and Speed indicators
Digital Audio Ethernet Protocol:	Dante
Transmission Rate:	100 Mbps
Sample Rates Supported:	44.1 kHz, 48 kHz (default)
Bit Depth Supported:	24 bits
Audio Operating Levels:	-20 dBFS = +4 dBu

#### Line Inputs to Network Interface Section

Inputs (4):	Balanced, detachable terminal block
Input Level for +4 dBu:	-16 dBu to +12 dBu, +22 dBu maximum
Input Impedance:	> 20 kΩ
Frequency Response:	20 Hz to 20 kHz (± 0.5 dB)
THD+N:	< 0.05%
Noise below +4 dBu:	< -80 dB
CMRR:	> 60 dB (50 Hz to 120 Hz)
Crosstalk:	< 85 dB (20 Hz to 20 kHz)
Headroom above +4 dBu:	> 18 dB

#### Network to Line Level Interface Section

Outputs (4):	Balanced, detachable terminal block
Output Level:	+4 dBu (nominal)
Output Impedance:	150 Ω balanced; 75 Ω unbalanced
Frequency Response:	20 Hz to 20 kHz (± 0.5 dB)
THD+N:	< 0.05%
Noise below +4 dBu:	< -80 dB (output active); < -95 dB (outputs muted)
Crosstalk:	< 85 dB (20 Hz to 20 kHz)
Headroom above +4 dBu:	> 18 dB
Indicators (17):	Power In (1); Output Signal LEDs (4); Input Dual-LED VU Meters (8); Network Sys and Sync (2), Ethernet Link and Speed (2)
Power Connections (2):	Power Jack; Detachable Terminal Block
Ambient Operating Environment:	0° C to 40° C
Power Requirement:	24 Vdc @ 140 mA plus connected loads, or PoE (RU-LB4P)
PoE (RU-LB4P):	Class 0, IEEE 802.3af
Dimensions:	5.8" (15 cm) W; 1.7" (4.3 cm) H; 5.2" (13.2 cm) D
Package Type:	Cardboard Box
Package Dimensions:	6 x 6 x 2.625 in.
Shipping Weight:	1.705 lbs. (RU-LB4); 1.73 lbs. (RU-LB4P)
WEEE weight:	1.445 lbs. (RU-LB4); 1.47 lbs. (RU-LB4P)
Tariff code:	8517.18.0050

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