RDL
Radio Design Labs

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

RACK-UP® SERIES
Models RU-NL4 & RU-NL4P
Network to Line Level Interface

- Converts Four Dante Network Audio Signals to Professional Line Level
- Line-Level Outputs Provide +4 dBu with >18 dB Headroom
- Exceptional Low-Noise and Low-Distortion Performance
- Crosstalk Below the Noise Floor
- Signal LEDs Indicate Audio for Each of the Four Dante Audio Sources
- High Resolution 24 Bit Digital to Analog Conversion
- Legendary RDL Analog Filtering Enhances Superb Audio Performance
- LED Indicators Show Network Sync Status
- Outputs Mute when Digital Audio Inputs are Inactive
- Normal or Hot-Standby Operation from PoE (Model RU-NL4P)
- Equipped for Rack Mounting or Surface Mounting

The RU-NL4 modules are Dante audio network interface products compatible with line-level audio equipment inputs. 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-NL4 is a high quality converter that provides professional line-level outputs from four Dante network audio channels. 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 with greater than 18 dB of headroom.

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.

The RU-NL4 is powered from an external 24 Vdc power supply, available separately. The RU-NL4P is equipped to operate from a PoE enabled network switch. The RU-NL4P 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-NL4P, the unit will run from the external supply and will seamlessly switch over to PoE power upon loss of the external supply

The RU-NL4's superior performance specifications make it ideally suited to the most demanding installations, and an exceptional value in commercial networked audio systems.

The RU-NL4 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.
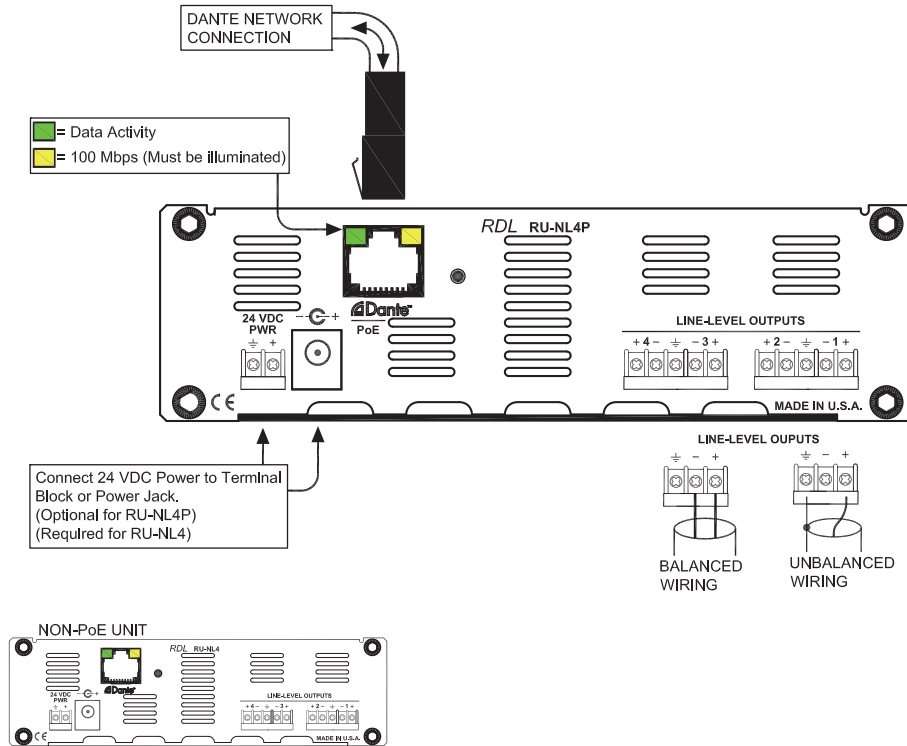
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Installation/Operation

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.

DANTE NETWORK CONNECTION

☐ = Data Activity
☐ = 100 Mbps (Must be illuminated)

RDL RU-NL4P

24 VDC PWR

Dante PoE

LINE-LEVEL OUTPUTS
+ 4 − ÷ − 3 + + 2 − ÷ − 1 +

MADE IN U.S.A.

Connect 24 VDC Power to Terminal
Block or Power Jack.
(Optional for RU-NL4P)
(Required for RU-NL4)

LINE-LEVEL OUPUTS
÷ − + ÷ − +

BALANCED WIRING   UNBALANCED WIRING

NON-PoE UNIT

RDL RU-NL4

24 VDC PWR   Dante   LINE-LEVEL OUTPUTS
+ 4 − ÷ − 3 + + 2 − ÷ − 1 +

MADE IN U.S.A.

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:	-18 dBFS = +4 dBu
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 (9):	Power In (1); Audio Signal LEDs (4),
	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 @ 110 mA, or PoE (RU-NL4P)
PoE (RU-NL4P):	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:	1.576 lbs. (RU-NL4); 1.601 lbs. (RU-NL4P)
WEEE weight:	1.316 lbs. (RU-NL4); 1.341 lbs. (RU-NL4P)
Tariff code:	8517.18.0050

891-3485

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