

## RACK-UP® SERIES

### Models RU-FN & RU-FNP

#### Format-A to Network Interface

- Converts RDL Format-A and Aux Source to Four Dante Network Channels
- Easy Installation with Format-A Connections on RJ45 through CATx Cable
- Format-A Audio Sources from Pairs A, B and C Converted to Dante
- Fourth Dante Audio Channel Fed from Unbalanced or Balanced Aux Line Input
- Front-Panel Gain Adjustment with Dual-LED VU Meter for Aux Input
- Signal LEDs Indicate Audio for Each of the Three Format-A Pairs
- High Resolution 24 Bit Analog to Digital Conversion
- Legendary RDL Analog Filtering Enhances Superb Audio Performance
- Powers Remote Format-A Senders through Format-A Input Jack
- LED Indicators Show Network Sync Status
- Normal or Hot-Standby Operation from PoE (Model RU-FNP)
- Compatible with Wide Array of RDL Format-A Active and Passive Senders
- Equipped for Rack Mounting or Surface Mounting



The RU-FN modules are Dante audio network interface products compatible with RDL Format-A twisted pair products. 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-FN is an RDL Format-A receiver that connects to a Dante-enabled network. It converts the three Format-A audio pairs to Dante networked digital audio channels. Each network channel corresponds to Pair A, B or C of the Format-A input. The unit converts a fourth input, balanced or unbalanced line-level AUX, to Dante.

One front-panel green signal LED corresponds to each of the three Format-A 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. A Dual-LED VU meter facilitates adjustment of the front-panel AUX input gain control. The AUX input supports the complete range of normal unbalanced and balanced line-level sources.

The Format-A input jack provides up to 200 mA of power to connected Format-A senders. Multiple senders may be daisy chained from the Format-A input jack.

The RU-FN Format-A input supports the entire range of Format-A senders, making each input pair available for end-user connection on various wall plates, or receiving signals from other equipment using rack-mounted, shelf-mounted or utility Format-A senders. The wide array of Format-A senders provides compatibility with commercial audio equipment operating at standard professional levels. High resolution digital audio converters coupled with RDL's renowned analog filters provide superior fidelity with a very low noise floor. Each Format-A sender may be connected near the RU-FN or up to several thousand feet distant.

The RU-FN is powered from an external 24 Vdc power supply, available separately. The external supply powers the RU-FN and Format-A senders connected to the Format-A input. The RU-FNP is equipped for PoE which powers the RU-FN and the connected Format-A senders. If PoE power and an external 24 Vdc supply are both feeding an RU-FNP, the unit will run from the external supply and will seamlessly switch over to PoE power upon loss of the external 24 V supply. The power feeding the Format-A RJ45 connector is separately protected by an automatically resetting fuse. A power LED is associated with the connector, facilitating identification of wiring faults.

PoE relies on the use of a PoE enabled network switch. The RU-FNP will reserve power from the switch even while being powered from an external 24 Vdc supply.

The RU-FN 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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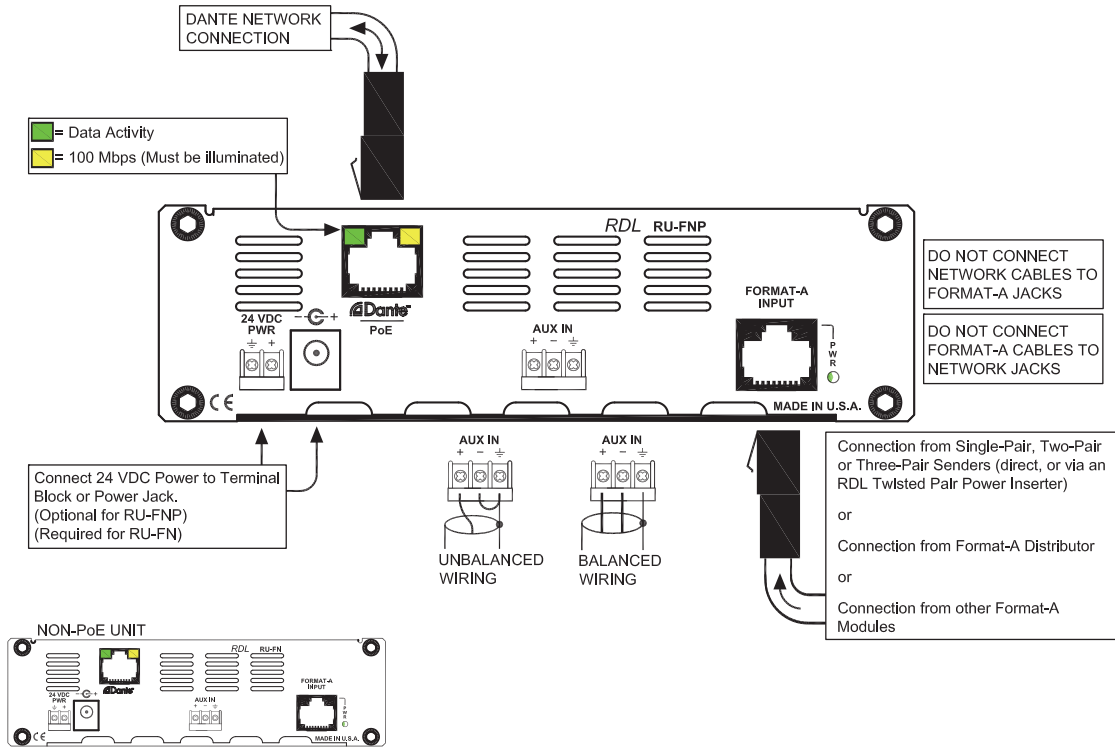
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## RACK-UP® SERIES Models RU-FN & RU-FNP Format-A to Network Interface

## Installation/Operation

**CE** Declaration of Conformity available from rdlnet.com.  
Sole EMC specifications provided on product package.  
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

**Format-A Input**  
RDL Format-A RJ45  
Format-A Signal Pairs Used (3): A, B, C  
Frequency Response: 20 Hz to 20 kHz ( $\pm$  0.5 dB)  
THD+N: < 0.1%  
Noise below +4 dBu: < -75 dB  
CMRR: > 90 dB (50 to 120 Hz, any input pair)  
Crosstalk: > 80 dB (20 Hz to 20 kHz)  
Headroom above +4 dBu: > 18 dB

**AUX Input**  
Input: Balanced, detachable terminal block  
Input Impedance: > 20 k $\Omega$   
Input Level for +4 dBu: -16 dBu to +12 dBu, +22 dBu maximum  
Frequency Response: 20 Hz to 20 kHz ( $\pm$  0.75 dB)

THD+N: < 0.1%  
Noise below +4 dBu/-18 dBFS: < -75 dB  
CMRR: > 60 dB (50 to 120 Hz)  
Crosstalk: < 80 dB (20 Hz to 20 kHz)  
Headroom above +4 dBu: > 18 dB

Indicators (11): Power In (1); Power Out (1); Audio Signal LEDs (3), AUX Dual-LED VU Meter (2), 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 @ 100 mA plus connected loads, or PoE (RU-FNP)

PoE (RU-FNP): 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: 1.585 lbs. (RU-FN); 1.61 lbs. (RU-FNP)  
WEEE weight: 1.325 lbs. (RU-FN); 1.35 lbs. (RU-FNP)  
Tariff code: 8517.18.0050

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