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.
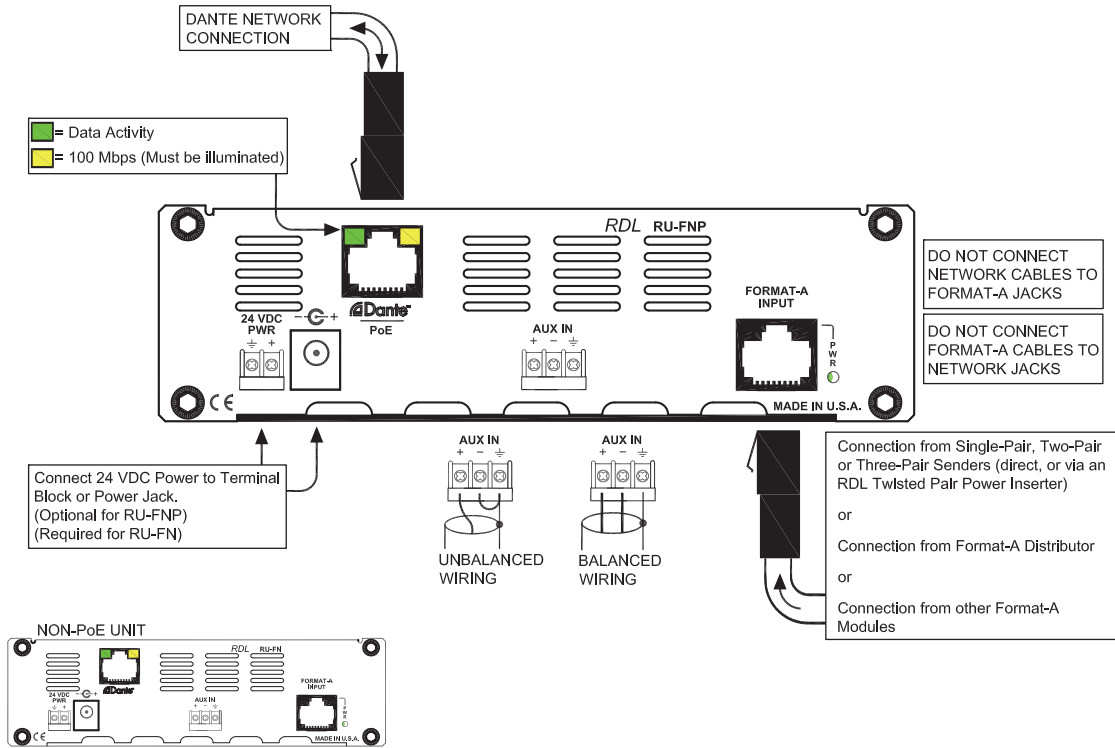
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Format-A to Network Interface

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.

DANTE NETWORK CONNECTION

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

RDL **RU-FNP**

24 VDC PWR   PoE   AUX IN   FORMAT-A INPUT

DO NOT CONNECT NETWORK CABLES TO FORMAT-A JACKS

DO NOT CONNECT FORMAT-A CABLES TO NETWORK JACKS

MADE IN U.S.A.

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

AUX IN
+ − ⏚
UNBALANCED WIRING

AUX IN
+ − ⏚
BALANCED WIRING

Connection from Single-Pair, Two-Pair or Three-Pair Senders (direct, or via an RDL Twisted Pair Power Inserter)

or

Connection from Format-A Distributor

or

Connection from other Format-A Modules

NON-PoE UNIT

RDL **RU-FN**

24 VDC PWR   AUX IN   FORMAT-A INPUT

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

Format-A Input

	RDL Format-A RJ45
Format-A Signal Pairs Used (3):	A, B, C
Frequency Response:	20 Hz to 20 kHz (± 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 kΩ
Input Level for +4 dBu:	-16 dBu to +12 dBu, +22 dBu maximum
Frequency Response:	20 Hz to 20 kHz (± 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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Radio Design Labs Technical Support Centers
U.S.A. (800) 933-1780, (928) 778-3554; Fax: (928) 778-3506
Europe [NH Amsterdam] (++31) 20-6238 983; Fax: (++31) 20-6225-287