



# RDL®

High Performance Audio Products. Made in America.

## Model D SERIES-RN12 Wall-Mounted Bi-Directional Mic/Line Dante Interface 1 x 2



- Single-Gang Dante or AES67 Network Interface for One Audio Input and Two Audio Outputs
- Front-Panel Mic/Line Input on Balanced XLR Jack
- Balanced Line Output on Front-Panel Mic/Line XLR and on Rear-Panel Detachable Wiring Block
- Additional Line Output on Rear-Panel Detachable Wiring Block
- Software-Selected Input Gain; Mic: 35 dB, 42 dB or 59 dB; Line: Unity or 12 dB
- P48 Mic Phantom Selected by Software for Mic Input
- Front-Panel XLR Output is Software-Selectable for Mic or Line Level
- Outputs Equipped with Software-Controlled Attenuator in 1 dB Steps
- Module is Configured and Adjusted Using RDL CONSOLE or Other Network Control Software
- Compatible with RDL Network Remote Controls
- High Resolution 24 Bit Analog to Digital and Digital to Analog Conversion
- Legendary RDL Studio Quality, Low-Noise Performance

**APPLICATION:** The D-RN12 is a complete wall-mounted Dante or AES67 audio network interface. It features one XLR mic or line input on the front panel, one balanced mic or line output on a front-panel XLR jack, and two balanced line outputs on a rear-panel detachable wiring block. One of the rear-panel wired outputs is the line-level signal from the front-panel XLR output. The other rear-panel wired output is a separate network audio channel. The module is configured and adjusted using RDL CONSOLE or other network control software. The D-RN12 fits a standard US single-gang electrical box or an RDL WB-1U back box for installations in European or similar thinner walls. The D-RN12 is PoE powered, and is available in multiple finishes with optional customized graphics.

### Mic/Line to Network Section

The XLR input is converted to a Dante or AES67 network transmit channel. Five gain settings are software-selectable for the XLR input. Three gain settings are provided to match condenser or dynamic microphones. Two gain settings are provided to match standard line levels. P48 phantom voltage may be software enabled when the input is set for mic level.

### Network to Mic/Line Outputs Section

Two Dante or AES67 audio channels are converted to balanced line level. One channel feeds the front-panel XLR output jack and one of the two rear-panel outputs on a detachable wiring block. The other audio channel feeds the other output on the detachable wiring block. Each line output provides balanced +4 dBu for a network digital audio level of -18 dBFS. Each output is equipped with a software-controlled attenuator adjustable in 1 dB steps to a maximum attenuation of 63 dB, then OFF. The front-panel XLR output is also equipped with a software-controlled mic/line output attenuator pad. When that output is set to mic level, the step attenuator reduces the mic output in 1 dB steps to a maximum attenuation of 63 dB below mic level, then OFF. The rear-panel outputs may drive local power amplifiers or may feed additional XLR jacks mounted adjacent to the D-RN12 in a dual-gang box. Two XLR mic or line outputs may be provided using an RDL D-D2 equipped with two AMS-XLRMA jacks, available separately.

Valid PoE power and synchronization to the Dante network are indicated by green LEDs visible from the front of the unit.

The D-RN12 is a professional grade product with an RDL mic preamplifier for studio quality fidelity and low noise performance, with audio coupled through XLR jacks housed in a steel chassis mounted with a powder-coated or stainless-steel Decora front plate.

The D-RN12's superior performance specifications make it ideally suited to installations requiring network control and exceptional value in commercial networked audio systems. This full-featured product is engineered and manufactured in the U.S.A. for continuous duty in demanding installations. Designed to outperform. Built to last.

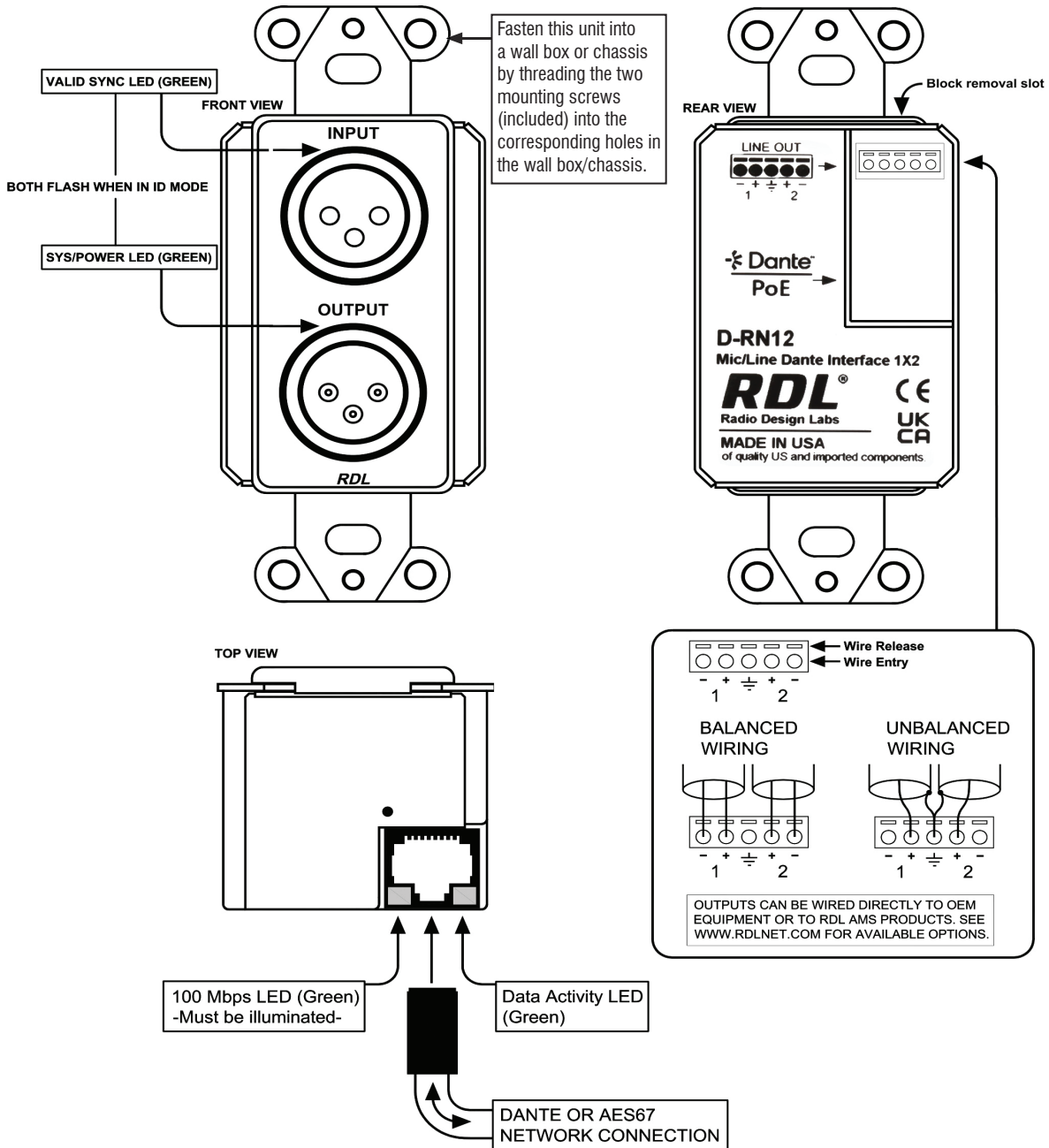


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This product is not specified to provide basic insulation from network cabling not installed wholly within the same building structure or terminated on equipment earthed to a different earthing network.



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## Installation/Operation

**CE** Declaration of Conformity available from [rdlnet.com](http://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 or AES67                               |
| Transmission Rate:               | 100 Mbps                                     |
| Sample Rates Supported:          | 44.1 kHz, 48 kHz (default), 88.2 kHz, 96 kHz |
| Bit Depth Supported:             | 24 bits                                      |
| Audio Operating Level:           | -18 dBFS = +4 dBu                            |
| Reference Level:                 | 0 dBFS = +22 dBu                             |

### Mic/Line Input to Network Interface

|                                      |  |
|--------------------------------------|--|
| Input:                               | XLR (female)   |
| Gain:                                | Mic: 35 dB (LOW), 42 dB (MED),<br>59 dB (HIGH); Line: Unity (NORM),<br>12 dB (HIGH)                      |
| Input Level (for +4 dBu/-18 dBFS):   | Mic: -31 dBu (LOW), -38 dBu (MED),<br>-55 dBu (HIGH); Line: +4 dBu (LOW),<br>-8 dBu (HIGH)               |
| Input Level (maximum):               | Mic: -14 dBu (LOW),<br>-21 dBu (MED), -38 dBu (HIGH);<br>Line: +23 dBu (LOW), +10 dBu (HIGH)<br>> 1.2 kΩ |
| Input Impedance:                     | > 1.2 kΩ   |
| Phantom Power:                       | P48, software-selectable   |
| Standard for Phantom:                | IEC 61938: 2013  |
| Selectors per input (2):             | Phantom, Gain, software-selectable   |
| Frequency Response:                  | 20 Hz to 20 kHz (± 0.5 dB)   |
| Equivalent Input Noise:              | < -128 dBu (59 dB gain);<br>< -130 dBu A-Weighted  |
| Noise below -18 dBFS (20 to 20 kHz): | Mic: < -88 dB (LOW), < -82 dB (MED),<br>< -68 dB (HIGH); Line: < -88 dB (NORM),<br>< -88 dB (HIGH)       |
| THD+N:                               | < 0.1% (20 Hz to 20 kHz, +4 dBu/-18 dBFS)  |
| CMRR:                                | > 65 dB (50 Hz to 120 Hz)  |
| Crosstalk:                           | Below Noise Floor (20 Hz to 20 kHz<br>at operating level, any input to any input,<br>max. mic gain)      |

### Network to Mic/Line Outputs

|                                |  |
|--------------------------------|--|
| Outputs (2):                   | Balanced, XLR and detachable wiring<br>block; Balanced, detachable wiring<br>block               |
| Output Level (operating):      | +4 dBu (nominal) balanced  |
| Output Level (maximum):        | +22 dBu balanced   |
| Output Attenuator:             | Software-controlled,<br>0 to -63 dB and OFF<br>(analog output per received<br>network channel)   |
| Output Impedance:              | 150 Ω balanced   |
| Frequency Response:            | Mic: 20 Hz to 20 kHz (± 0.5 dB);<br>Line: 20 Hz to 20 kHz (± 0.5 dB)                             |
| THD+N:                         | < 0.1%   |
| THD:                           | < 0.01% (1 kHz)  |
| Noise:                         | < -80 dB (below +4 dBu);<br>< -100 dB (below +22 dBu)  |
| Crosstalk:                     | Below Noise Floor (20 Hz to 20 kHz<br>at operating level, output to output)                      |
| Headroom above +4 dBu:         | > 18 dB  |
| Indicators (4):                | Ethernet Link and Speed<br>(2, rear panel);<br>Sync and Power<br>(2, front panel)                |
| Ambient Operating Environment: | 0° C to 50° C  |
| Power Requirement:             | PoE Class 0, IEEE 802.3af  |
| Specification Conditions:      | Gain/Level: ± 1 dB;<br>Source termination: 150 Ω;<br>A to D values<br>measured in digital domain |
| Dimensions:                    | 1.80" (4.57 cm) W;<br>4.11" (10.44 cm) H;<br>2.09" (5.31 cm) D                                   |
| Package Type:                  | Cardboard Box  |
| Package Dimensions:            | 2.75" (6.99 cm) x<br>6.7" (17.02 cm) x<br>6.25" (15.88 cm)                                       |
| Shipping Weight:               | 0.695 lbs. (0.315 kg)  |
| WEEE weight:                   | 0.435 lbs. (0.197 kg)  |

Safety Instructions/Consignes de sécurité/  
Instrucciones de seguridad/Sicherheitshinweise:



EU Importer:  
Importateur de l'UE:  
Importador de la UE:  
EU-Importeur:  
  
RDL Europe B.V.  
Joan Muyskenweg 124  
1114 AN Amsterdam