

## RACK-UP<sup>®</sup> SERIES

### Model RU-DA4D

### Audio Distribution Amplifier

#### ANYWHERE YOU NEED...

- Stereo Audio Distribution with 4 Outputs
- Mono Audio Distribution with 8 Outputs
- Multiple Isolated Audio Feeds
- Individual Audio Level Controls
- Audio Presence Indicators
- 1/3-Rack, High-Density Rack-Mounting



#### ***You Need The RU-DA4D!***

The RU-DA4D is part of the group of RACK-UP products from Radio Design Labs. RACK-UPs feature the advanced circuitry for which RDL products are known, combined with accessible user-friendly controls and displays. The ultra compact design permits high-density installations, with *three* products mounted in a single rack unit! Single RACK-UPs can be mounted right where they are needed using the adhesive method popularized by RDL's STICK-ON<sup>®</sup> series of products. Optional brackets permit mounting a RACK-UP module above, below, or in front of any flat surface!

**APPLICATION:** The RU-DA4D is the ideal choice in most applications where line-level signals need to be distributed. All connections are made using full-size barrier block terminals on the rear panel.

The RU-DA4D has two separate line-level inputs. Each input permits the connection of either balanced or unbalanced, high or low impedance audio lines.

When a stereo source is used, one channel is connected to each of the two inputs. In this configuration, the RU-DA4D provides four isolated outputs from each of the two (left and right) inputs. When a monaural source is used, a total of eight outputs can be fed simultaneously. There is a rear-panel jumper provided which feeds the audio source connected to input **A** to all of the **B** outputs, as well as to the normal **A** outputs.

Each of the outputs is provided with a front-panel screwdriver gain control. Relative to the input level, this gain potentiometer allows an adjustment ranging from 15 dB loss to 18 dB gain. Each of the outputs drive balanced-audio lines, and may be unbalanced if required. A convenient (write-on) label area is provided to identify the feed controlled by each output level control.

Audio *presence* is indicated by an LED indicator. An indicator is provided for each channel. Whenever an audio signal is present for the given channel input, the indicator lights.

Wherever an audio distribution amplifier is needed to provide superior audio clarity, user adjustments, reliability, compactness and unsurpassed versatility; the RU-DA4D is the ideal choice. Use the RU-RA3 rack-mount adapter to mount multiple RU-DA4Ds, or to combine related products (such as audio mixing, video distribution, or audio metering) into a single rack unit!



**RDL**<sup>®</sup>  
Radio Design Labs

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™



# RACK-UP<sup>®</sup> SERIES

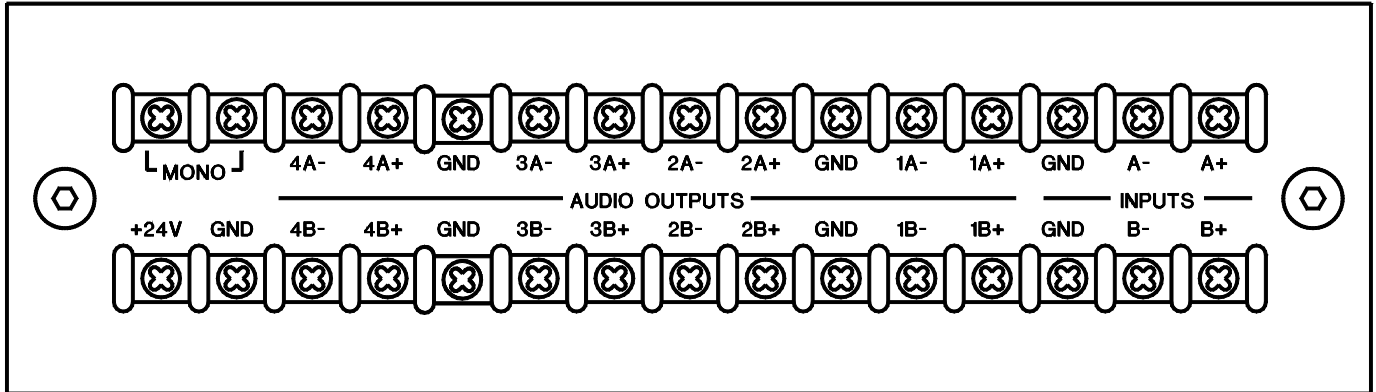
## Model RU-DA4D

### Audio Distribution Amplifier

## 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.



**AUDIO INPUTS:** Connect **Channel A** balanced audio to **A+**, **A-**, and **GND**. Connect **Channel B** unbalanced audio to **B+** and **GND**; connect **B-** to **GND**. If unit is being used for stereo, connect **Channel B** similarly to **A**.

**MONAURAL OPERATION:** Connect **Channel A** as described above. Then connect the two terminals labeled **MONO** together. Do not connect **B** input. The audio now connected to **A** input will appear at all 8 outputs.

**AUDIO OUTPUTS:** Connect balanced audio to the desired output(s) (Channel A 1 through 4 and Channel B 1 through 4). For balanced wiring, connect the conductors to the **+** and **-** terminals. The ground is typically connected to the equipment that the RU-DA4D is feeding. If it is desired to connect the ground, use the nearest **GND** terminal. For unbalanced wiring, connect the positive lead to the output **+** terminal; connect the shield to the nearest **GND** terminal. Do not connect the output **-** terminal to the shield or **GND** terminals.

**POWER CONNECTION:** Connect the positive side of a single-ended 24Vdc power source to the **+24VDC** terminal. Connect the ground return from that supply to the adjacent **GND** terminal. Power supply and circuit grounds are common. Available RDL supply is purchased separately.

### TYPICAL PERFORMANCE

|                             |  |
|-----------------------------|--|
| Inputs (2):                 | Line Level (+4 dBu nominal)  |
| Input Impedance:            | 10 kΩ Balanced or Unbalanced   |
| Gain:                       | -15 dB to +18 dB (each output adjustable)  |
| Frequency Response:         | 20 Hz - 20 kHz (+/- 0.5 dB into 600 Ω)<br>10 Hz - 20 kHz (+/- 0.5 dB into 10 kΩ)       |
| THD+N:                      | < 0.010%   |
| Headroom:                   | > 18 dB (above +4 dBu Input or Output)   |
| Noise:                      | < -85 dB (below +4 dBu Output)   |
| Crosstalk Between Channels: | < -70 dB (10 Hz – 5 kHz); < -60 dB (10 Hz – 20 kHz)                                    |
| CMRR:                       | > 50 dB (100 Hz)   |
| Indicators:                 | 1 LED Per Channel for Audio Present (Audio Input > -20 dBv)                            |
| Power Requirement:          | 24 to 33 Vdc @ 120 mA, Ground-referenced   |
| Dimensions:                 | Height: 1.7 in. 4.3 cm<br>Length: 5.8 in. 15.0 cm<br>Depth: 2.0 in. 5.1 cm (case only) |

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