



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

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

## RACK-UP<sup>®</sup> SERIES

### Model RU-EQ3

### Audio Tone Controls

- 3-Band Audio Equalization
- Custom Tailored Audio Bandwidth
- User-accessible Adjustments
- High-Density Rack-Mount Convenience
- A Low-Noise, Low-Distortion Equalizer



The RU-EQ3 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! Optional brackets permit mounting a RACK-UP module above, below, or in front of any flat surface!

**APPLICATION:** The RU-EQ3 features a balanced-bridging input, which may also be connected unbalanced if desired. The output driver is 150  $\Omega$  balanced, and is intended to drive unbalanced or balanced lines of low or high impedance. Front-panel knobs provide active equalization, each controlling a separate audio band. These bands were carefully selected to yield a module that works effectively in a wide variety of systems. Each band's center frequency can be either boosted or attenuated by at least 12 dB. The RU-EQ3 has three front-panel knobs. The Q of the low and high band equalizers was selected so that those controls can be functionally considered as a total bass-band or treble-band control. The midrange control is optimized to voice band adjustment, with the overlap tailored to provide smooth operation for wideband music applications.

A feature unique to the RU-EQ3 is the **OVERLOAD** indication LED. When audio signals are equalized, the boosted level can cause the output circuit to clip. Alternatively, if prominent frequencies are attenuated, the input is likely to be turned up so that its amplifier can clip. In either event, there is a risk of distortion. Unlike many products which show only input clipping, the RU-EQ3's **OVERLOAD** indicator flashes if *either* the input or output stage clips.

The RU-EQ3 is the optimum choice for general equalization requirements with user-adjustable knobs in both music and voice applications. Its low-noise and low-distortion performance makes it suited to the most critical installations.

The RU-EQ3 is the ideal choice wherever an audio equalization device is needed to provide superior audio clarity, user adjustments, reliability, compactness and unsurpassed versatility.



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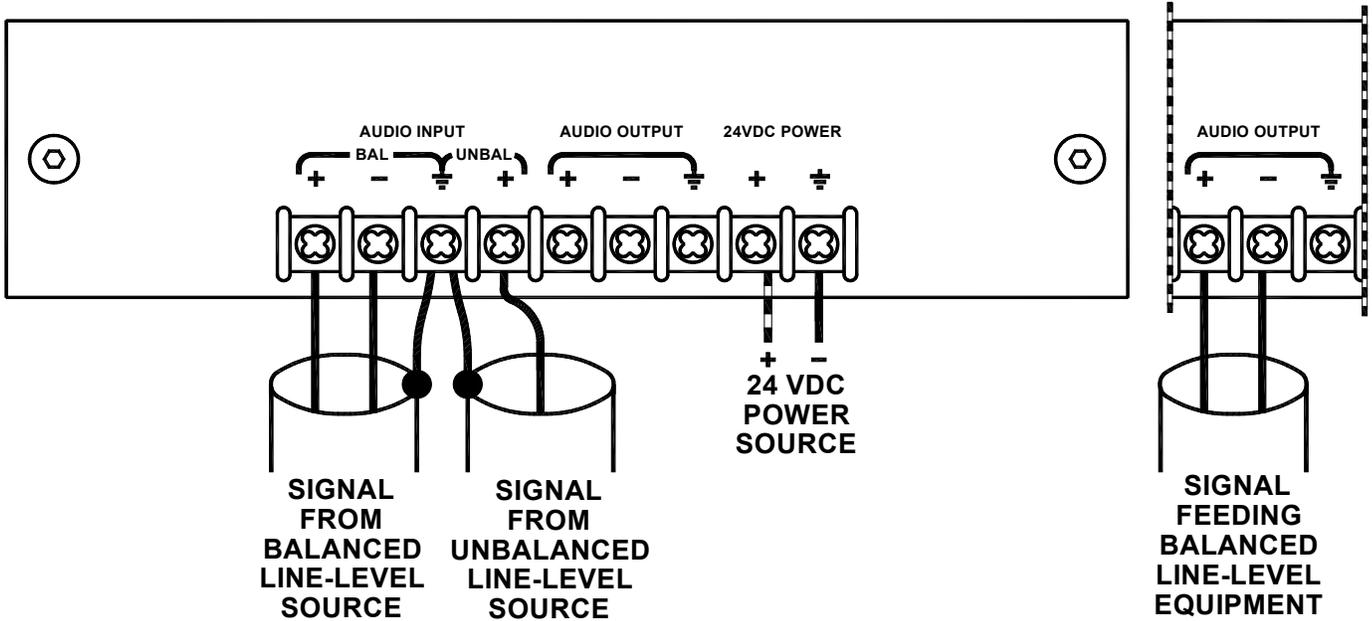
## Model RU-EQ3

### Audio Tone Controls

## 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.



### TYPICAL PERFORMANCE

Input:	100 kΩ balanced or unbalanced bridging; line-level
THD:	< 0.030%; 0.010% typ. (1 kHz, +4 dBu ref.; flat response)
CMRR:	> 50 dB @ 100 Hz
Frequency Response:	20 Hz to 22 kHz (EQ set flat; +/- 0.5 dB) into 600 Ω 10 Hz to 22 kHz (EQ set flat; +/- 0.5 dB) into 10 kΩ bridging load
Noise:	< -80 dB below +4 dBu
Center frequencies:	
Low Band:	80 Hz
Mid Band:	1 kHz
High Band:	30 kHz
Bandwidth:	
Low Band:	20 Hz to 300 Hz
Mid Band:	200 Hz to 7 kHz
High Band:	3 kHz to 30 kHz
Power:	24 Vdc @ 25 mA, Ground-referenced
Dimensions:	
Height:	1.7 in.    4.3 cm
Length:	5.8 in.    15.0 cm
Depth:	2.0 in.    5.1 cm (case only)
	2.5 in.    6.4 cm (including barrier block)

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