



RDL[®] Radio Design Labs[®]

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

STICK-ON[®] SERIES

Model ST-EQ3

3-Band Audio Equalizer

ANYWHERE YOU NEED...

- 3-Band Audio Equalizer
- Custom Tailored Audio Bandwidth
- To Pass Voice-Band Audio
- To Produce *Smile-Curve* for Music
- Low-Noise, Low Distortion Equalizer

You Need The ST-EQ3!



The ST-EQ3 is a unique audio equalizer in the STICK-ON product series by Radio Design Labs. The durable bottom adhesive permits quick, permanent or removable mounting nearly anywhere or it may be used with RDL's STR-19A or STR-19B racking systems. The ST-EQ3 offers the ultimate flexibility in audio bandwidth adjustment, with the big PLUS, you can put it right where you need it!

APPLICATION: The ST-EQ3 features a balanced bridging input, which may be also connected unbalanced if desired. The output driver is 150 Ω balanced, and is intended to drive unbalanced or balanced lines of 150 Ω or higher impedance. Three active circuits accomplish 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 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 ST-EQ3 is the **CLIP** indicating 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 ST-EQ3s **CLIP** indicator flashes if EITHER the input or output stages would clip!

For general equalization requirements in both music and voice applications, the ST-EQ3 is the optimum choice. Its low-noise and low distortion performance makes it suited to the most critical installations. Used in conjunction with other RDL RACK-UP[®], STICK-ON, TX[™], or FLAT-PAK[™] series products, the ST-EQ3 can provide the foundation for many creative audio systems!



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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.

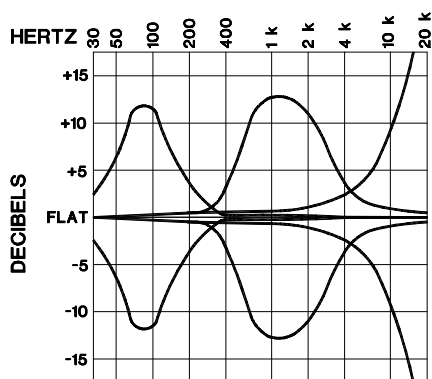


SIGNAL FROM
UNBALANCED
LINE-LEVEL
SOURCE

SIGNAL FEEDING
UNBALANCED
LINE-LEVEL
EQUIPMENT

ADJUST
LEVELS

NOTE: BOTH INPUTS AND OUTPUTS
MAY BE BALANCED OR UNBALANCED



AUDIO
WIRING



25 TURN
GAIN
ADJUST

SIGNAL FROM
BALANCED
LINE-LEVEL
SOURCE

SIGNAL FEEDING
BALANCED
LINE-LEVEL
EQUIPMENT

EACH BAND IS
FLAT WHEN THE
TRIMPOT ARROW
IS STRAIGHT DOWN



SUPPLY
WIRING

24 Vdc
POWER
SOURCE

RDL PS-24
TYPE
SUPPLY

TYPICAL PERFORMANCE

Input:

Gain:

THD:

CMRR:

Frequency Response:

Into 600 Ω :

Into bridging load:

Noise:

Center frequencies:

Low Band:

Mid Band:

High Band:

Bandwidth at 3dB EQ:

Low Band:

Mid Band:

High Band:

Power:

100 k Ω balanced or unbalanced bridging; line level

Adjustable OFF to unity (+/- EQ Adj.)

< 0.030%; 0.010% typ. (1 kHz, +4 dBu ref.; flat response)

> 60 dB @ 100 Hz

20 Hz to 22 kHz (EQ set flat; +/- 0.5 dB)

10 Hz to 22 kHz (EQ set flat; +/- 0.5 dB)

< -80 dB below +4 dBu

80 Hz

1 kHz

30 kHz

20 Hz to 300 Hz

200 Hz to 7 kHz

3 kHz to 30 kHz

24 to 33 Vdc @ 25 mA, Ground-referenced

Radio Design Labs Technical Support Centers

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