



RDL[®]
Radio Design Labs

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

STICK-ON[®] SERIES

Model ST-EQ3

3-Band Audio Equalizer

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



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! STICK-ONs are designed, built and rated for continuous duty in professional A/V systems.

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 individually or combined with other RDL products, the ST-EQ3 can provide the foundation for many creative audio systems!

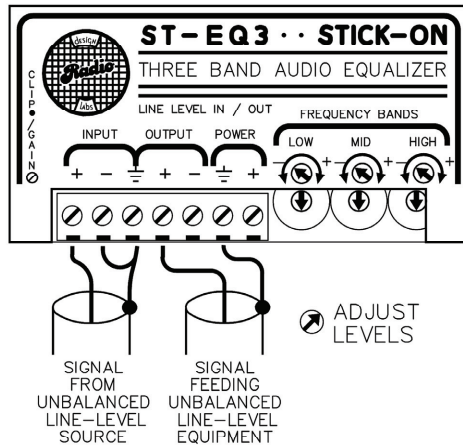
STICK-ON[®] SERIES

Model ST-EQ3

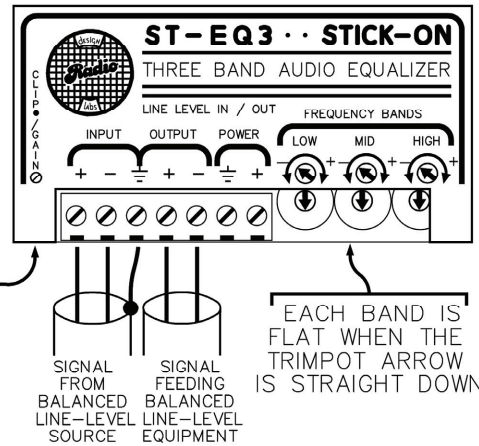
3-Band Audio Equalizer

Installation/Operation

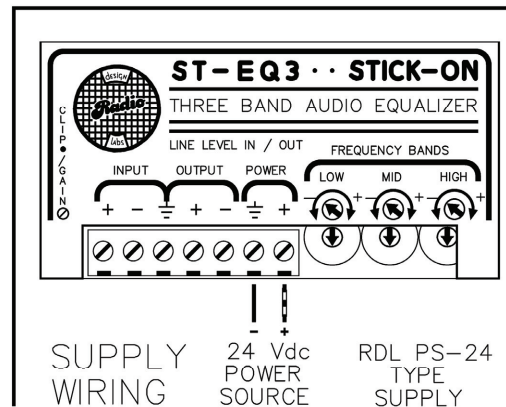
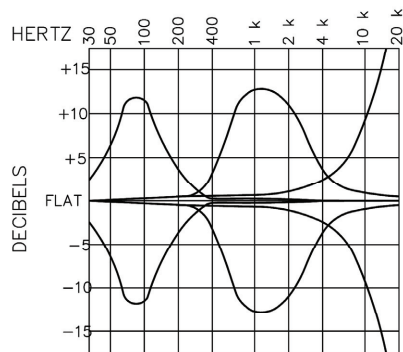
CE EN55103-1 E1-E5; EN55103-2 E1-E4
Typical Performance reflects product at publication time exclusive of EMC data, if any, supplied with product. Specifications are subject to change without notice.



AUDIO WIRING



NOTE: BOTH INPUTS AND OUTPUTS MAY BE BALANCED OR UNBALANCED



TYPICAL PERFORMANCE

Input:	100 k Ω balanced or unbalanced bridging; line level
Gain:	OFF to unity (adjustable, \pm EQ adjustment)
Audio Output:	+4 dBu nominal, 150 Ω balanced
THD+N:	< 0.030%; 0.010% typical (1 kHz flat response)
CMRR:	> 60 dB (50 to 120 Hz)
Frequency Response:	
Into 600 Ω :	20 Hz to 22 kHz (EQ set flat; \pm 0.5 dB)
Into bridging load:	10 Hz to 22 kHz (EQ set flat; \pm 0.5 dB)
Noise:	< -80 dB (below +4 dBu)
Center frequencies:	
Low Band:	80 Hz
Mid Band:	1 kHz
High Band:	30 kHz
Bandwidth at 3dB EQ:	
Low Band:	20 Hz to 300 Hz
Mid Band:	200 Hz to 7 kHz
High Band:	3 kHz to 30 kHz
Ambient Operating Environment:	0° C to 55° C
Power:	GROUND-REFERENCED, 24 Vdc @ 25 mA