



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

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

## TX™ SERIES

### Model TX-LC2

### Active Audio Combiner/ Balanced Line Converter

- To Mix Two Unbalanced Audio Signals to Mono Balanced
- To Combine Stereo Into Mono with Balanced Output
- A Gain-Trim For an Output
- Isolation Between Inputs
- Unbalanced to Balanced Conversion
- High Quality Audio



The TX-LC2 is part of the group of versatile TX series products from Radio Design Labs. TX modules feature the superior engineering and components common to RDL products. The durable adhesives provided with the TX-LC2 permit permanent or removable mounting. The TX-LC2 may be rack or surface mounted with optional TX series accessories.

**APPLICATION:** The TX-LC2 is the ideal choice in installations requiring the active, isolated mixing of two unbalanced line-level audio sources to feed a balanced (or unbalanced) audio input.

The input circuits are high-impedance, line-level (-10 dBV) and are isolated from each other. Therefore the modules may be used to bridge an unbalanced stereo source without affecting the stereo separation. The output from the TX-LC2 is a mono mix of the stereo signal. Gain of the combined signals is adjustable from -10 to +10 dB (rel. +4 dBu output).

The TX-LC2 may also be used to mix two separate sources into a single output. The mixing circuit in the module is an active summing amplifier.

The output driver provides a 150  $\Omega$  balanced source to drive high or low impedance, balanced or unbalanced lines.

The input connectors make connection of the TX-LC2 easy. The broad gain range makes the TX-LC2 ideally suited to any installation where a balanced mono signal is needed from a stereo unbalanced source, particularly low-output consumer products such as certain televisions.

Use the TX-LC2 individually, or combine it with other RDL modules and accessories as part of a complete audio/video system.

# TX™ SERIES

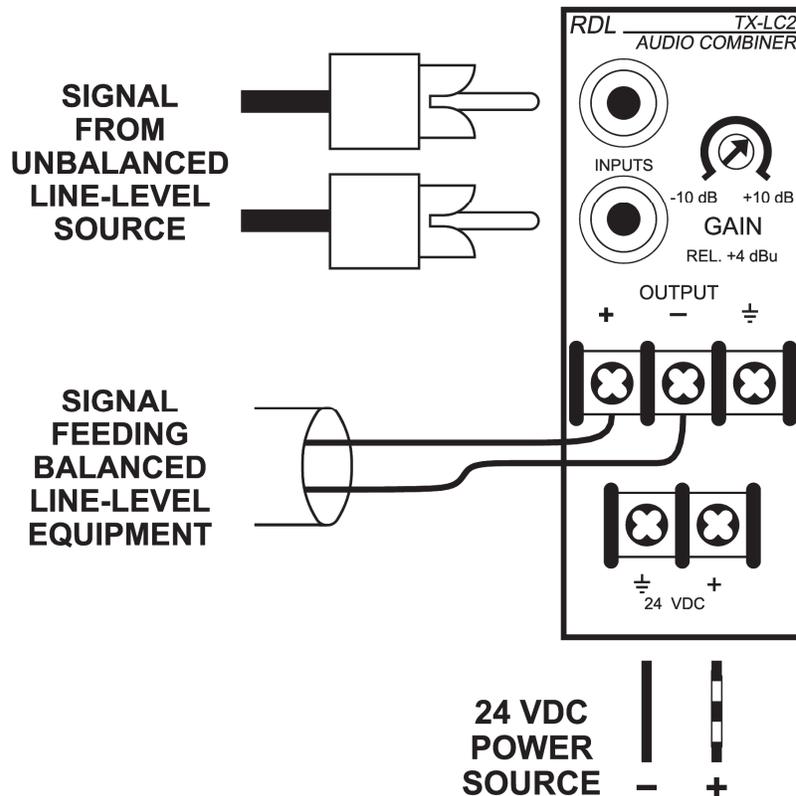
## Model TX-LC2

### Active Audio Combiner/ Balanced Line Converter

# 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

|                                |  |
|--------------------------------|--|
| Inputs (2):                    | -10 dBV nominal, -20 dBV minimum   |
| Input Impedance:               | 10 k $\Omega$ bridging   |
| Noise:                         | < -85 dB below +4 dBu (-10 dBV input @ 12 dB gain)   |
| THD+N:                         | < 0.005%   |
| Frequency Response:            | 10 Hz to 20 kHz (+/- 0.1 dB into bridging load)<br>25 Hz to 20 kHz (+/- 0.5 dB into 600 $\Omega$ load) |
| Gain:                          | +/-10 dB (rel. +4 dBu balanced output, adjustable)   |
| Intermodulation Distortion:    | 0.010% typical   |
| Output:                        | 150 $\Omega$ Balanced, +4 dBu to drive low or high impedance<br>balanced or unbalanced lines           |
| Headroom:                      | > 18 dB  |
| Power:                         | 24 Vdc @ 30 mA, Ground-referenced  |
| Ambient Operating Environment: | 0° C to 55° C  |
| Dimensions:                    | Height: 1.4 in. 3.6 cm<br>Length: 3.0 in. 7.6 cm<br>Width: 1.2 in. 3.0 cm                              |

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