



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

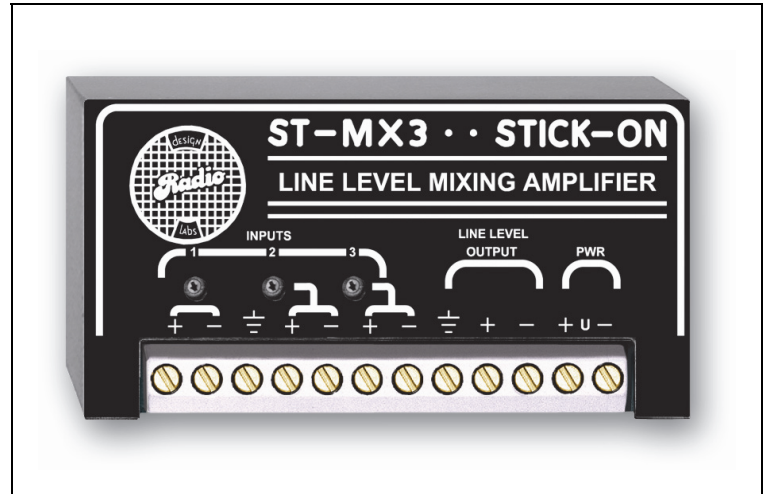
SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

## STICK-ON<sup>®</sup> SERIES

### Model ST-MX3

### Line Level Mixer

- Mix Line-Level Signals
- Three Individually Adjustable Inputs
- Add Additional Inputs to an Existing Mixer
- Combine Signals of Different Level, Impedance or Bal. / Unbal. Configuration
- Low-Noise and Low-Distortion Performance
- RDL SupplyFlex™ Power Input Configuration



The ST-MX3 is part of a group of products in the STICK-ON series from Radio Design Labs. The durable adhesives provided with the ST-MX3 permit permanent or removable mounting. Numerous available mounting accessories, brackets, rack-mount and table top chassis are optionally available to facilitate any system. The ST-MX3 gives you the advantage of a high performance audio mixer with a big plus, you can put it where you need it, and you can combine modules to build larger mixing systems using whatever combination you need! STICK-ONs are designed, built and rated for continuous duty in professional A/V systems.

**APPLICATION:** The ST-MX3 is a three-channel audio mixer for combining line-level signals to a line-level output. Individual level control is provided for each input. Each input features a separate preamplifier circuit, which isolates it from the other inputs. A single-turn trimmer is provided for each of the three input preamps. Signals from the three preamps are actively summed and fed to the output line-level driver amplifier. The line-input circuit design of the ST-MX3 allows the inputs to accept either balanced to unbalanced signals, or either high or low impedance. The output is capable of driving into either high or low impedance, balanced or unbalanced loads. Each output may be connected in parallel with other ST-MX3s, or ST-UMX3s to form a multi-channel mixer to fit nearly any installation! The ST-MX3 features amplifier circuitry which produces the unsurpassed pure clarity for which Radio Design Labs products are known! Some features are:

- Ultra-low Distortion
- Ultra-low Noise
- Input Levels Individually Adjustable
- Ample Headroom at Operating Level
- Full Operation in either High or Low Impedance Circuits
- Outputs Short-Circuit Protected
- Positive Connections via Barrier Block, No Audio Connectors to Wire

The audio clarity, low noise, low distortion and versatility make this module ideally suited to a wide variety of demanding audio applications. Use this module individually or in conjunction with other RDL modules as part of a high quality, flexible audio/video system.

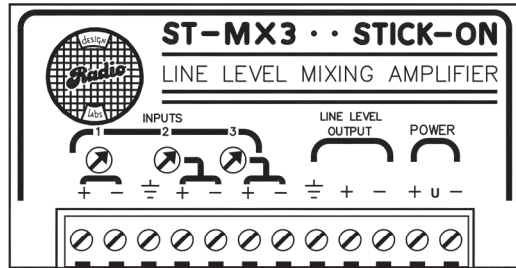
# STICK-ON<sup>®</sup> SERIES

## Model ST-MX3

### Line Level Mixer

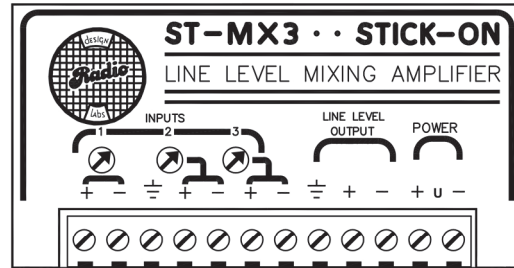
## Installation/Operation

**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.



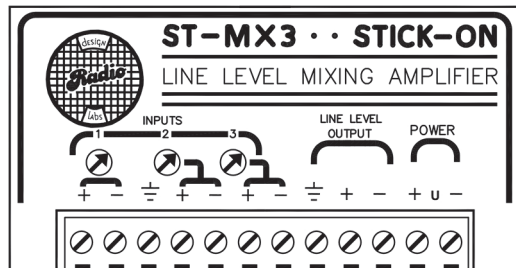
AUDIO WIRING

SIGNAL FROM BALANCED LINE-LEVEL SOURCE  
OTHER BALANCED OR UNBAL INPUTS  
SIGNAL FEEDING BALANCED LINE-LEVEL EQUIPMENT



ADJUST LEVELS

SIGNAL FROM UNBALANCED LINE-LEVEL SOURCE  
OTHER BALANCED OR UNBAL INPUTS  
SIGNAL FEEDING UNBALANCED LINE-LEVEL EQUIPMENT



SUPPLY WIRING

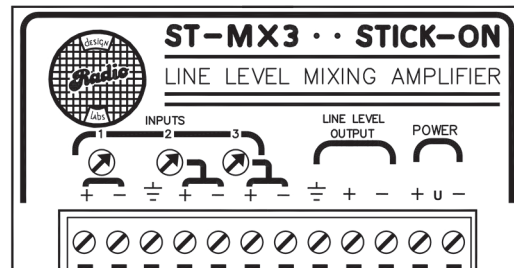
OPTIONAL JUMPER  
(WHEN USING A GROUND-REFERENCED POWER SUPPLY OR TO GROUND REFERENCE A FLOATING SUPPLY)

RDL PS-24  
TYPE  
SUPPLY

24 Vdc  
POWER  
SOURCE

DO NOT GROUND NEGATIVE FOR FLOATING OR BIPOLAR POWER INSTALLATION

OR  
GROUND NEGATIVE FOR GROUND-REFERENCED POWER INSTALLATION



AUXILIARY BIPOLAR SUPPLY

12 12  
OR OR  
15 15  
VDC VDC  
BIPOLAR SUPPLY

### TYPICAL PERFORMANCE

Inputs (3):	30 kΩ balanced or unbalanced bridging
Input Level:	-20 dBu to +18 dBu (for +4 dBu output) -24 dBu to +14 dBu (for 0 dBu output)
Output:	400 Ω to drive low or high impedance balanced or unbalanced lines
Output Level:	+4 dBu nominal, (adjustable; unbalanced output 6 dB below balanced line level)
THD+N:	< 0.03% (10 Hz to 20 kHz)
Frequency Response:	10 Hz to 20 kHz (± 0.5 dB)
Noise:	< -80 dB (all inputs @ 10 dB gain, referenced to +4 dBu)
Headroom:	18 dB
Gain (each input):	-14 dB to +24 dB Adjustable
CMRR:	> 50 dB (50 to 120 Hz)
Ambient Operating Environment:	0° C to 55° C
Power Requirement:	GROUND-REFERENCED or FLOATING, 24 Vdc @ 55 mA

Radio Design Labs Technical Support Centers

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