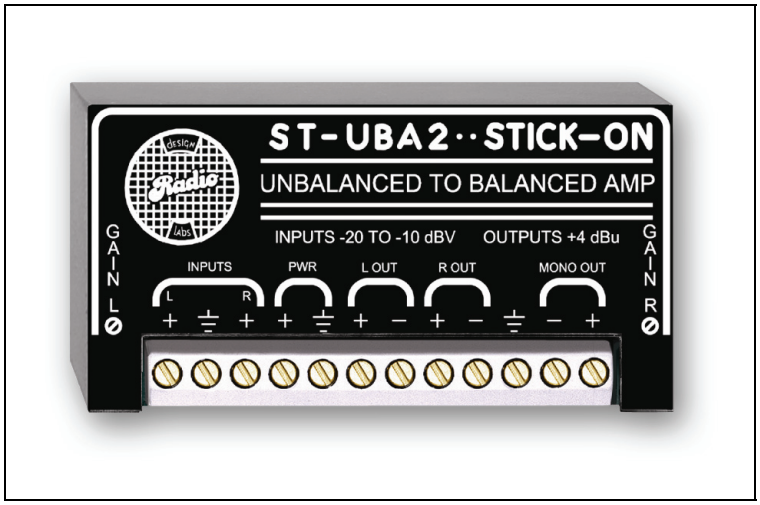
RDL®
Radio Design Labs

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

STICK-ON® SERIES

Model ST-UBA2
Unbalanced to Balanced Amplifier

- Convert Stereo IHF Levels to Stereo PRO
- Additional MONO Sum Output
- Independently Adjustable Gain
- Ground-referenced Conversion Module
- LED VU Metering for Each Channel
- Unparalleled Audio Performance



The ST-UBA2 is part of the group of versatile STICK-ON products from Radio Design Labs. STICK-ONs feature the advanced circuitry for which RDL products are known, combined with unequalled versatility in mounting possibilities. The durable adhesives provided with the ST-UBA2 permit permanent or removable mounting. Numerous available mounting accessories, brackets and rack-mount chassis are optionally available to facilitate any system design. STICK-ONs are designed, built and rated for continuous duty in professional A/V systems.

FUNCTIONAL DESCRIPTION: The ST-UBA2 is a dual channel line-level device with separate left (**L**) and right (**R**) inputs. Each input is unbalanced and is designed to accept input signals from -20 dBV to -10 dBV. A multi-turn gain potentiometer is provided for setting the level independently for each input. The unbalanced signals are converted to balanced signals in the module. The balanced line amplifiers provide low impedance, balanced +4 dBu outputs. In addition to the LEFT and RIGHT outputs, an actively-summed MONO output is provided. This balanced output is the sum of the left (**L OUT**) and right (**R OUT**) balanced outputs. The mono output is 6 dB below each of the individual channel outputs thereby producing identical levels at all three outputs when the inputs are fed with in-phase signals.

Separate LED level metering is provided for the left and right outputs. Each channel is equipped with two LEDs. A green LED illuminates at 15 dB below +4 dBu. The intensity of the green LED progresses from minimum at -11 dBu to full intensity at +4 dBu. The adjacent red LED illuminates at +4 dBu. This two-LED meter provides a compact, accurate indication of dynamic audio. The ballistics of the metering circuit follows the same rise and fall times of a standard VU meter. Therefore, the audio may be adjusted for maximum intensity of the green LED. Flashing of the red LED is equivalent to a VU meter needle swinging above the “0” level. The meter is calibrated to the standard operating level of +4 dBu.

Module operation is from a 24 Vdc ground-referenced power supply.

TYPICAL APPLICATION: The ST-UBA2 is used in any application requiring conversion from unbalanced consumer format signals to professional +4 dBu. It may be used to balance audio from CD players, cassette decks, computer sound cards, televisions, and a wide variety of other unbalanced sources. The mono sum output may be used to drive patch-bay jacks, monitors or subwoofer amplifiers.

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

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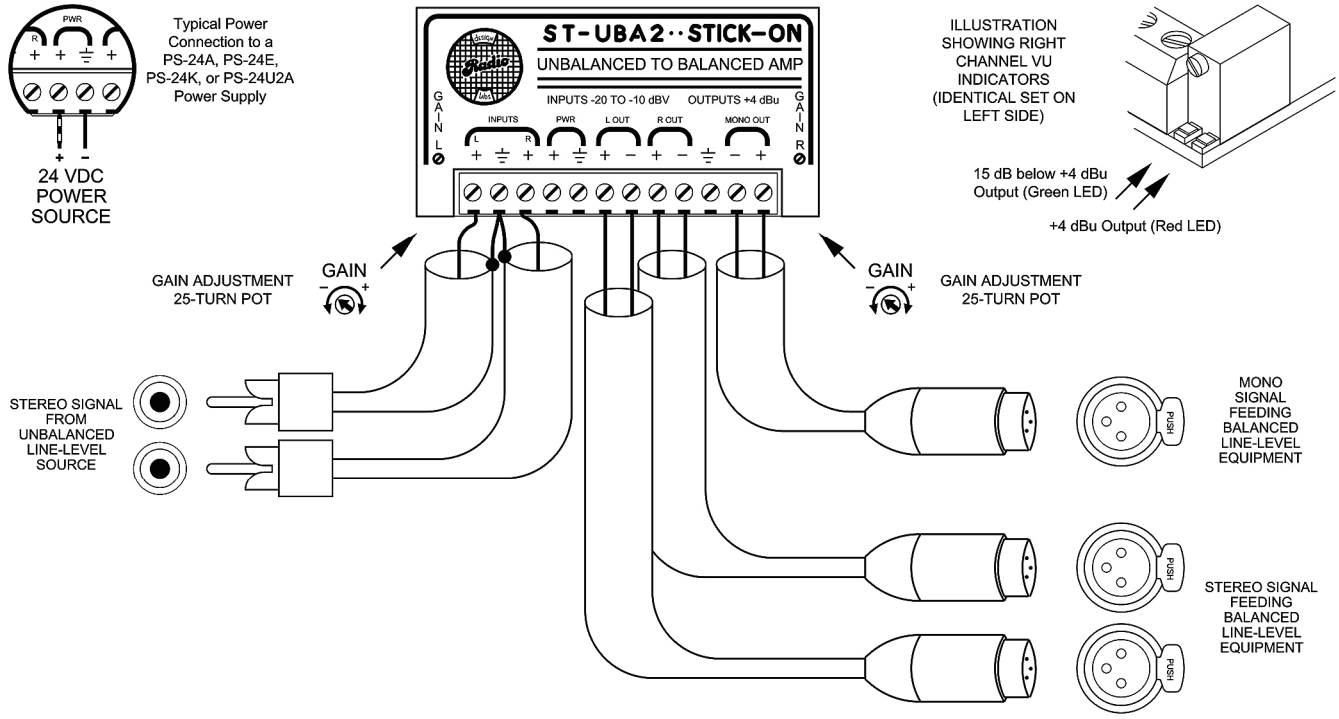
Installation/Operation

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.



TYPICAL PERFORMANCE

Inputs (2):	Unbalanced line-level
Input Impedance:	10 kΩ
Output Impedance:	150 Ω
Input Signal Range:	-20 dBV to -10 dBV
Outputs (3):	+4 dBu balanced (left, right, mono sum)
Gain:	2 dB to 22 dB (adjustable)
THD+N:	< 0.02% (20 Hz to 20 kHz)
Frequency Response:	20 Hz to 20 kHz (± 0.2 dB)
Noise:	< -85 dB (referred to +4 dBu)
Indicators(4):	1 green LED per channel indicating 15 dB range below +4 dBu output level output level
IMD:	< 0.004%
Crosstalk:	< -75 dB @ 1 kHz < -60 dB @ 10 kHz
Headroom:	> 18 dB above +4 dBu
Ambient Operating Environment:	0° C to 55° C
Power Requirement:	GROUND-REFERENCED, 24 Vdc @ 75 mA

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