



RDL[®]
Radio Design Labs

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

max **RACK-UP**[®] SERIES Model RU-AEC1 Digital to Analog Converter

ANYWHERE YOU NEED...

- Broadcast Quality Audio D to A
- Operation Up to 24 bits, 96 kHz
- Automatic Sample Rate Detection
- Exclusive **SURE-LOK**[™] Auto-Recovery Sentinel
- Adjustable Audio Output Gain Trim
- Absent or Invalid Input Mutes Audio
- AES/EBU Transformer Isolated Input
- Input and Output Ground-Lift
- Digital Signal **ERROR** Indication



You Need The RU-AEC1!

The RU-AEC1 is part of the group of versatile *Max Series* RACK-UP products from Radio Design Labs. *Max Series* RACK-UPS feature all metal chassis and the advanced circuitry for which RDL products are known, combined with accessible, user-friendly controls and displays. The compact design permits high-density installations, with *three* products mounted in a single rack unit! Optional brackets permit mounting a *Max Series* RACK-UP module above, below, or in front of any flat surface. Optional rack-mount adapters (RU-RA3) are available for *Max Series* RACK-UP series installation. *Max Series* RACK-UP modules may be used freestanding as well!

APPLICATION: The RU-AEC1 is the ideal choice in installations requiring high quality analog audio from an AES-EBU digital audio source.

The RU-AEC1 input XLR is 110 Ω terminated and provides strapped terminals giving the user the option of lifting the input ground from the RU-AEC1 chassis. Audio outputs are available both on XLR connectors and on the full-size barrier block on the rear panel. This block also permits the user to lift the output grounds to each XLR jack individually. The RU-AEC1 is powered from 24 Vdc, which may be connected through the barrier block or through the dc power jack. A front-panel power switch is provided. All inputs and outputs are available on the rear panel.

The RU-AEC1 front panel provides a **POWER** LED, and a red **ERROR** LED. The **ERROR** indicator is illuminated whenever the module is not locked to a valid AES/EBU digital source. This condition occurs either in the absence of an input signal, or during a phase-lock or bit error related to an incoming signal that is present. The RU-AEC1 automatically adjusts to the incoming sample rate making operator switch settings unnecessary.

A frequent problem encountered with consumer and professional quality digital audio converters is unpredictable latch-up when digital signals are switched or connected to the converter input. **Sure-Lok**[™] auto-recovery circuitry unique to the RU-AEC1 monitors the most frequent causes of latch-up and reinitiates digital signal lock, bringing a new higher level of stability to digital audio signal conversion under the variety of conditions encountered in professional environments.

Wherever broadcast quality digital to analog audio conversion is required, the RU-AEC1 is the ideal choice. Use the RU-AEC1 individually, or combine it with other RDL products as part of a complete audio/video system.



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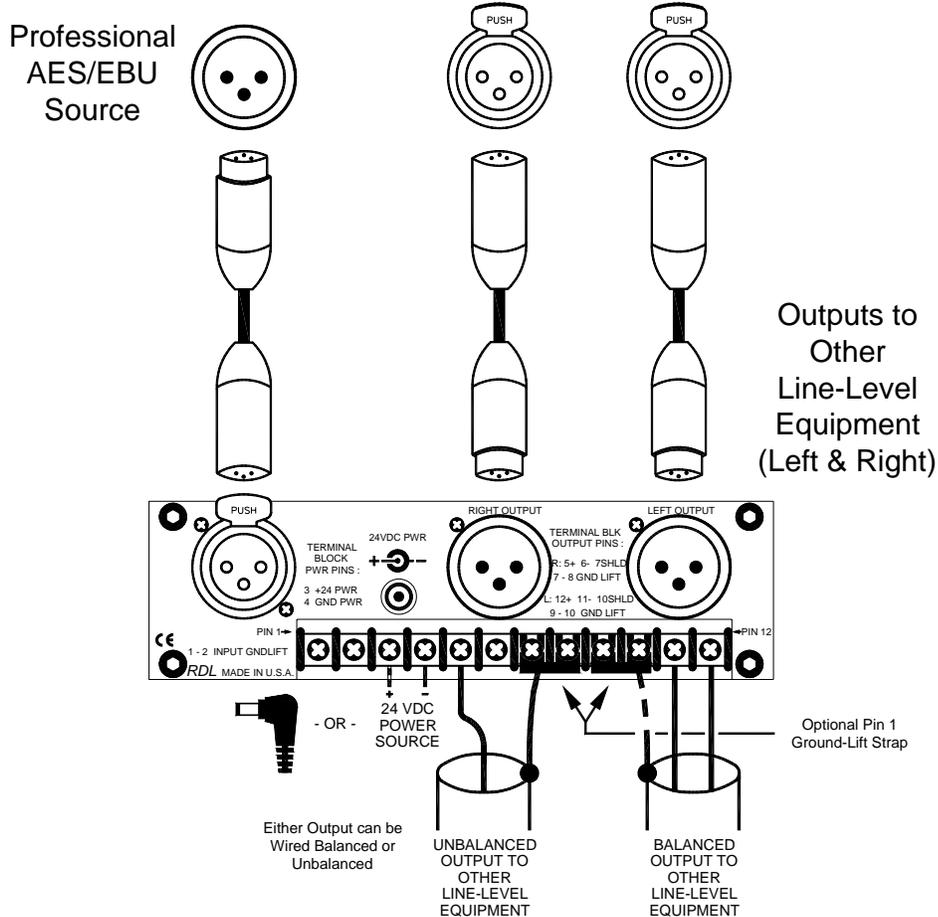


max RACK-UP[®] SERIES
Model RU-AEC1
Digital to Analog Converter

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:

- Input: 110 Ω AES/EBU XLR, transformer isolated with terminal block ground-lift strap
- Outputs (2): 150 Ω balanced XLR or terminal block with ground-lift straps
- Sample Rate: 32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz
- Resolution: 16 to 24 bits
- Frequency Response: 10 Hz to 20 kHz (+/- 0.5 dB)
- THD+N: < 0.04%
- Crosstalk: < -80 dB (100 Hz – 20 kHz); -70 dB (10 Hz to 100 Hz)
- Output Level: Adjustable from +4 dBu to +21 dBu (input = 0 dBFS)
- Phase L↔R: ±1° to 10 kHz; ±1.5° to 20 kHz
- Residual Noise: < -90 dB (-240 dBFS, reference +4 dBu @ 0 dBFS)
< -95 dB (no digital input, reference +4 dBu @ 0 dBFS)
- Dynamic Range: > 90 dB
- Indicators (2): **POWER LED** and **ERROR LED** (ERROR indicates not locked to a valid signal)
- Standards: AES3-1992 Amendment 3-1999
- Power Requirement: 24 to 33 Vdc @ 150 mA, Ground-referenced
- Mounting: Rack-mount using optional rack adapters such as RU-RA3; or operate freestanding
- Dimensions:

Height:	1.7 in	4.3 cm
Length:	5.8 in	15.0 cm
Depth:	3.3 in	8.4 cm

Radio Design Labs Technical Support Centers

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