RDL®
Radio Design Labs

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

maxRACK-UP® SERIES
Model RU-UDC1
Universal Digital Converter

ANYWHERE YOU NEED...

- Conversion from SPDIF to AES/EBU
- Conversion from AES/EBU to SPDIF
- Automatic Sample Rate Detection
- Exclusive SURE-LOK™ Auto-Recovery Sentinel
- Sample Rate/Valid Conversion LEDs
- Full Operation up to 24 bit / 96 kHz
- Transformer Isolated Inputs / Outputs

You Need The RU-UDC1!

The RU-UDC1 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-UDC1 is the ideal choice in applications where digital audio signals must be converted between consumer and professional formats. The digital inputs and outputs are made on the rear panel jacks. Power connections are made using either the full-size barrier block terminals or a dc power jack located on the rear panel. AES/EBU input signal shield-lift is also provided on the rear barrier block.

Four jacks are provided for the input: SPDIF Phono, SPDIF BNC, SPDIF Optical and AES/EBU XLR. Any one of these input jacks may be used. Four output jacks are provided: XLR AES/EBU, SPDIF Phono, SPDIF BNC, and SPDIF Optical. The electrical inputs and outputs are all transformer isolated. The coaxial jacks (phono and BNC) are connected to each other, therefore only one of these jacks may be connected at a time. LED indicators are provided to show the direction of conversion: SPDIF to AES/EBU or AES/EBU to SPDIF. One of these LED indicators will illuminate only when a valid, locked digital input signal is being converted to an output. The conversion mode is automatically selected. If an AES/EBU signal is connected to the input, it is converted to SPDIF. Conversely, if an SPDIF signal is connected to the input, it is converted to AES/EBU. Three LEDs are used to indicate the sample rate of the signal being converted. The RU-UDC1 input circuitry polls the two input types (SPDIF and AES/EBU) when no valid signal is present. The first input type with a valid signal is selected and the other input type is disabled. This feature prevents interference to the selected input signal if another signal is accidentally applied to the other format input connector. The selected input signal is decoded and reassembled in the opposite format. Either the AES/EBU XLR or the SPDIF output jacks are active. All pro/consumer, emphasis, and sampling frequency bits common to both SPDIF and AES/EBU standards are inserted in the output data stream

A frequent problem encountered with consumer and professional quality digital audio equipment is unpredictable latch-up when digital signals are switched or connected to a digital input. SURE-LOK™ auto-recovery circuitry unique to the RU-UDC1 monitors the most frequent causes of latch-up and reinitiates digital signal lock, bringing a new higher level of stability to digital audio format conversion under the variety of conditions encountered in professional environments. Disabling unused inputs and providing transformer isolation at both the input and output assure superior performance.

RDL®
Radio Design Labs
SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

RACK-UP®

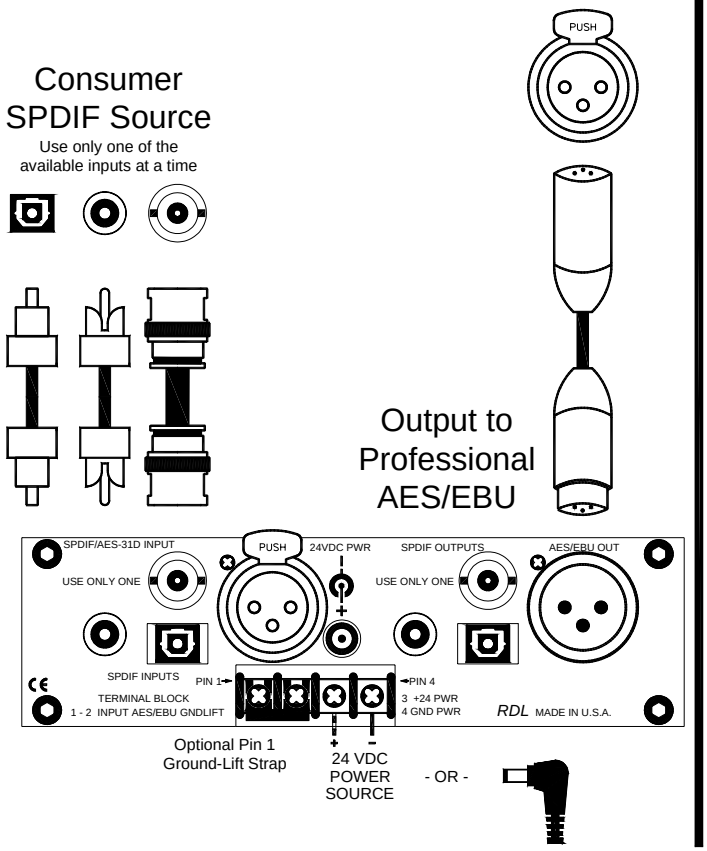
maxRACK-UP® SERIES

Model RU-UDC1
Universal Digital Converter

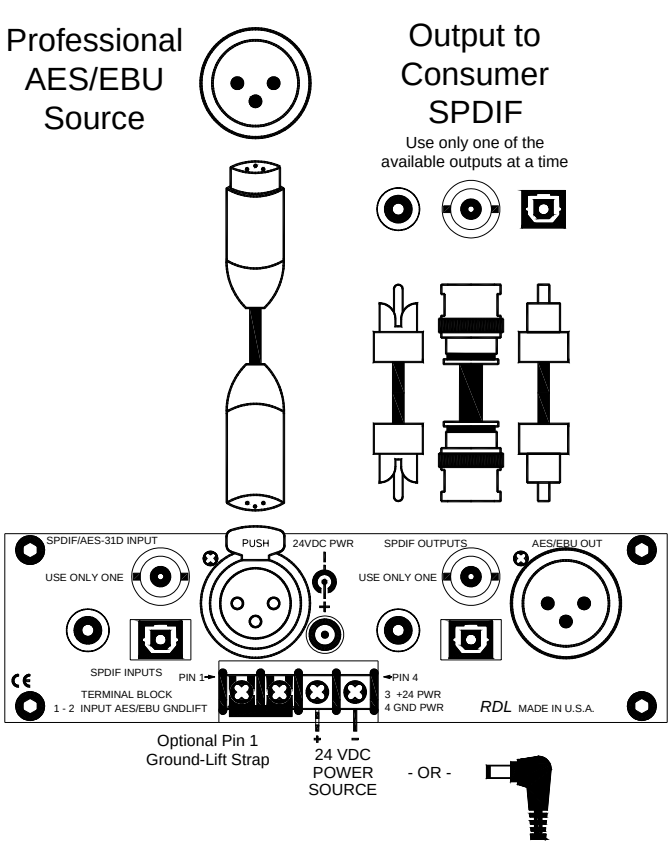
Installation/Operation

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.

SPDIF to AES/EBU



AES/EBU to SPDIF



TYPICAL PERFORMANCE

Inputs (4):	75 Ω SPDIF transformer isolated (phono or BNC) or optical, AES/EBU balanced XLR transformer isolated
Outputs (4):	75 Ω SPDIF transformer isolated (phono or BNC) or optical, AES/EBU balanced XLR transformer isolated
Sample Rate:	32 kHz to 96 kHz
Resolution:	16 to 24 bits
Standards:	IEC958, S/PDIF and EIAJCP340/1201; AES3-1992 Amendment 3-1999
Indicators (6):	2 LED conversion indicators (when locked to a valid signal) (indicating AES/EBU to SPDIF or SPDIF to AES/EBU) 3 LED sample rate indicators; 32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz 1 power LED
Dimensions:	Height: 1.7 in 4.3 cm Length: 5.8 in 15.0 cm Depth: 3.5 in 8.9 cm
Power Requirement:	24 Vdc @ 200 mA, Ground-Referenced

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