



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

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

## AV-PAK™ Series Model AV-DC4 Line-Level Audio Divider/Combiner

### ANYWHERE YOU NEED...

- To Combine Audio Signals to a Single Output
- To Combine Stereo Line-Level Signals
- To Feed a Mono Signal to Stereo Inputs
- To Combine Multiple Lines to a Single Input
- Switch-Selectable Ground Isolation in Balanced Lines
- Line-Level Ground-Loop Elimination
- Balanced Mono Galvanic Isolation
- Signal Divider or Combiner in Rugged Field Case
- Portable or Permanent Module Mounting

### *You Need The AV-DC4!*

The AV-PAK Series is a versatile product group from Radio Design Labs. The heavy-duty metal design allows the products to be used for both portable and fixed installations. These products feature the dark RDL *ULTRASTYLE*™ color complement making the modules ideal for use on stage as well as in an office or meeting room.



**APPLICATION:** The AV-DC4 is a mono transformer-coupled audio divider/combiner module for use with balanced, low or high impedance audio inputs and outputs. Input and output connections are provided on XLR jacks with gold-plated contacts. The AV-DC4 features four identical channels. Each channel may be used as either an input or as an output. Two XLR jacks are provided on each channel. The female jack is used if the channel is being used as an input; the male jack is used if the channel is being used as an output. The shield (pin 1) connections of both XLR jacks on a particular channel are normally connected to ground. The GND LIFT switch on each channel is used to disconnect the shield from circuit ground at audio frequencies.

Galvanic isolation between each of the channels is provided by a studio quality audio transformer. The AV-DC4 breaks the "ground loop" connection that can produce hum in a sound system. The input connector shield does provide a radio frequency ground return, thereby preserving system immunity to radio interference.

The four channels allow multiple uses for the AV-DC4. A single mono audio source can be divided to feed one, two or three mono equipment inputs. A stereo source can be combined to mono, feeding one or two mono equipment inputs. A mono source can be divided to feed a stereo equipment input (left and right). A stereo source can be combined to mono and simultaneously be divided to feed the mono signal to both the left and right inputs of stereo equipment. Ground lift may be selected individually on any of the channels.

The AV-DC4 is a rugged product designed for portable use. For fixed installations, a mounting bracket is included. Wherever ground isolation and/or signal dividing or combining is required in balanced audio lines, the AV-DC4 is the ideal choice. Use the AV-DC4 with other RDL modules and products to form a complete audio/video system.

# AV-PAK™ Series

## Model AV-DC4

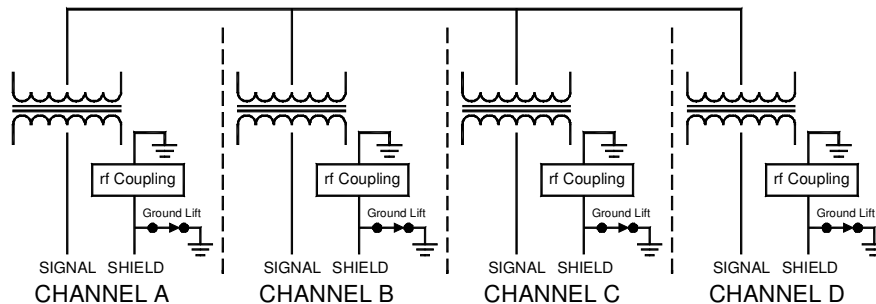
### Line-Level Audio Divider/Combiner

## 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.

### FUNCTIONAL BLOCK DIAGRAM



#### APPLICATION EXAMPLES SHOWING THE USE OF EACH AV-DC4 CHANNEL INPUT OR OUTPUT JACK:

##### A single mono audio source feeding one, two or three mono equipment inputs:

Channel A: INPUT      Channel B: OUTPUT      Channel C: OUTPUT      Channel D: OUTPUT

##### A stereo source combined to mono, feeding one or two mono equipment inputs:

Channel A: INPUT (L)      Channel B: INPUT (R)      Channel C: OUTPUT (mono)      Channel D: OUTPUT (mono)

##### A mono source divided to feed a stereo equipment input (left and right):

Channel A: INPUT      Channel B: OUTPUT (L)      Channel C: OUTPUT (R)      Channel D: Not used

##### A stereo source combined to mono and feeding the mono signal to both the left and right inputs of stereo equipment:

Channel A: INPUT (L)      Channel B: INPUT (R)      Channel C: OUTPUT (L)      Channel D: OUTPUT (R)

For permanent installation, fasten brackets to surface and snap module into position:



#### TYPICAL PERFORMANCE:

Input:	+4 dBu nominal
Output:	+4 dBu nominal
Frequency Response:	20 Hz to 20 kHz (+/- 0.05 dB)
THD+N:	<0.5% (50 Hz to 20 kHz; two 150 Ω sources, two 10 kΩ loads); 0.02% @ 1 kHz
Insertion Loss:	1 dB nominal (one input, one output); 6 dB nominal (two inputs, two outputs)
Dimensions:	Height: 1.75 in. 4.45 cm (unmounted)
	Height: 1.95 in. 4.95 cm (mounted)
	Width: 3.53 in. 8.97 cm
	Length: 7.93 in. 20.14 cm
Finish:	RDL Dark <i>ULTRASTYLE</i> ™ (dark gray with beige lettering)

#### Radio Design Labs Technical Support Centers

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