



RDL[®]
Radio Design Labs

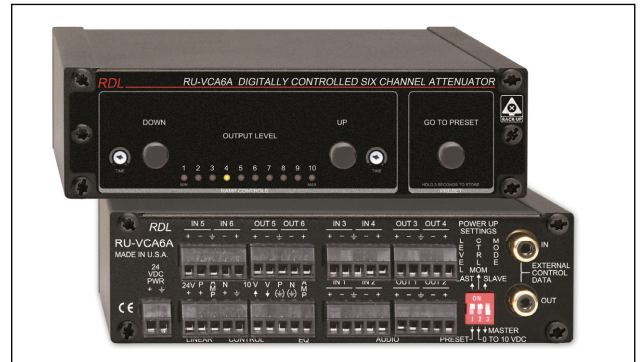
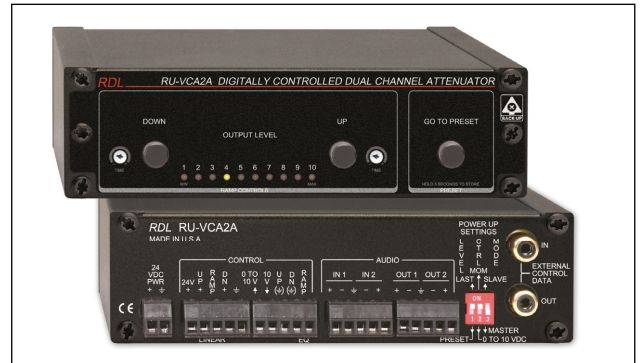
SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

RACK-UP[®] SERIES

Models RU-VCA2A & RU-VCA6A

Digitally Controlled Attenuators

- Local or Remote Audio Level Control
- Mono or Stereo Attenuation (RU-VCA2A)
- Six Channel / Surround Attenuation (RU-VCA6A)
- Noiseless Zero-Crossing Adjustment Steps
- 96 dB Attenuation Range in 0.5 dB Steps
- Data Bus Provides Adjustment of Multiple Modules
- Multiple Remote Control Locations Possible
- Precise Level Tracking on Each Channel
- Balanced or Unbalanced Line Inputs/Outputs
- Adjustable Ramp Up/Down Rates
- Controllable Using Various RDL Remote Controls
- Selectable Level Control Options:
 - Pushbuttons (Internal or External)
 - Momentary Pulses (External/Rotary Encoder)
 - 0 to 10 Vdc or 10 k Ω Potentiometer
- Selectable Power-Up Return to PRESET or LAST Level
- Selectable MASTER/SLAVE Mode for Control Expansion



APPLICATION: The RU-VCA2A is a full-featured studio-quality dual-channel audio attenuator module for local and/or remote control of balanced or unbalanced line-level sources. The RU-VCA6A has all the features of an RU-VCA2A with four additional audio channels for level control of surround sound (5.1) or six individual analog audio channels. Each module can be remote controlled from a single or multiple locations. Rear-panel terminals provide flexible control options using a variety of RDL remote controls or OEM equipment.

Audio levels are controlled in 0.5 dB steps using noiseless zero-crossing digital attenuators for optimum reliability, precise tracking and long-term click-free service. Exceptional wide-band low-noise performance makes the RU-VCA2A and RU-VCA6A suited to level adjustment in the most demanding applications. Rear-panel inputs and outputs may each be wired balanced or unbalanced.

The RU-VCA2A and RU-VCA6A power up in one of two operating modes set by a rear-panel switch.

MOM (momentary) Mode

In the **MOM** (momentary) mode, audio level is controlled by momentary pushbuttons or pulses. Remote terminals and front-panel pushbuttons are provided for up and down ramping control. If either button is held in, the audio will ramp automatically. If a button is pulsed (< 0.5 second), the audio will increment one step. The time of both the **UP** and **DOWN** ramps is individually adjustable on the front panel. Pushing remote **UP** and **DOWN** buttons simultaneously, or pressing the front-panel **GO TO PRESET** button, returns the audio to a preset level. The preset level is stored by adjusting the desired level using the **UP** and **DOWN** buttons, then pressing and holding the front-panel **PRESET** button for 3 seconds. A rear-panel switch sets the audio power-up level to either the preset level or the last level setting used. Multiple remote control locations are possible in the **MOM** mode. External control pulses may be either of positive polarity or pulled-to-ground (open-collector).

0 to 10 VDC Mode

In the **0 to 10 VDC** mode the preset function is disabled and the audio level is controlled by a remote 10 k Ω linear taper pot or by 0 to 10 Vdc. A single remote control location is possible using a remote 10 k Ω pot.

In both operating modes, two separate 0 to 10 Vdc outputs are provided. The linear **RAMP** output drives the level display on RDL remote controls; the **EQ RAMP** output is used to control an automatic RDL Loudness Equalizer (see ST-LEQ1). A front-panel 10-LED string display indicates the relative audio level. Control expansion is possible using the **EXTERNAL CONTROL DATA** jacks. One module can be set as a **MASTER** module to control the level of one or more additional RU-VCA2A or RU-VCA6A modules set to the **SLAVE** mode.

Use the RU-VCA2A and RU-VCA6A individually, or combine them with other RDL products as part of a complete system.



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