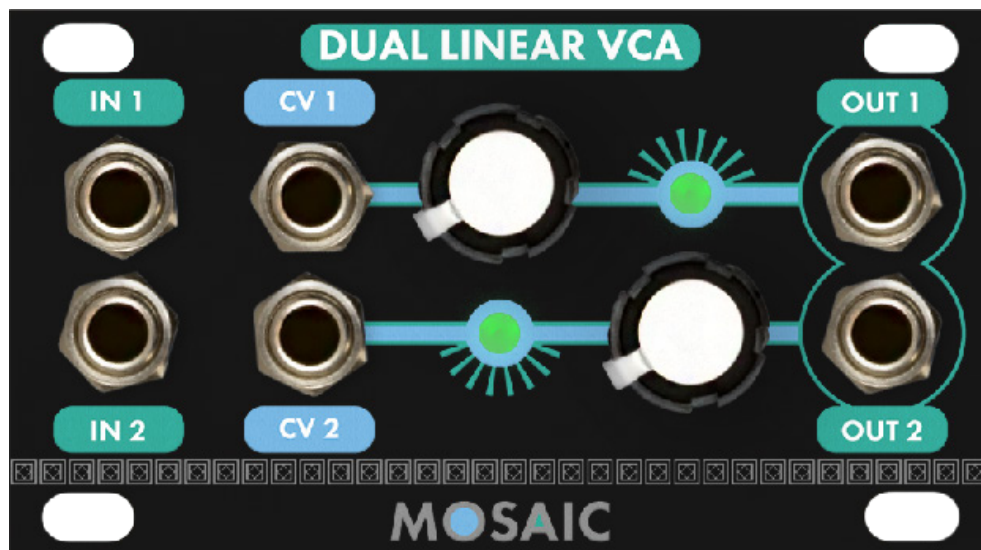


# DUAL LINEAR VCA

---

Manual



# CONTENTS

---

Things To Know	1
Overview	2
Details	3

# THINGS TO KNOW

---

## What is 1U?

1U is a measurement of height in the 19" rackmount standard. Eurorack modules adhere to 3 rack units, or 3U. Mosaic tiles adhere to 1 rack unit in height, and require appropriate rails to mount in a rack or modular case.

## What 1U format are Mosaic modules?

We ship our modules with [Intellijel 1U formatted front panels](#). If you use the Pulp Logic format, don't worry! You can purchase Pulp Logic replacement front panels on our [Replacement Panels page](#).

## Mosaic Color Guide

Each color indicates a function across the Mosaic lineup.

**Green:** Audio Signals

**Purple:** Gate Signals

**Blue:** Control Voltage

# OVERVIEW

---

## Description

Attenuate and amplify your signals with the Dual Linear VCA. This all-analog dual VCA gives you control over audio and modulation signals with an attenuator knob per channel and LED level indicators. As the old adage says, you can never have too many VCA's!

- Dual Linear Analog VCA
- SSI-2164 topology
- Attenuator knob per channel
- DC Coupled - Great for audio or CV signals
- LED level indicators
- When no signal is present in either channel, 10V is sent to each channel for DC voltage control

## Tech Specs

- Width: 14HP
- 38mm
- Front Panel: Ships in Intellijel format. Pulp Logic replacement panels available [here](#).
- Current Consumption: +12V = 21mA, -12V = 26mA

## Installation

To install, locate space in your Eurorack case for your 1U module, and confirm the positive 12 volts and negative 12 volts sides of the power distribution lines. Plug the connector into the power distribution board of your case, keeping in mind that the red band corresponds to negative 12 volts. In most systems, the negative 12 volt supply line is at the bottom. The power cable should be connected to the module with the red band facing the front of the module.

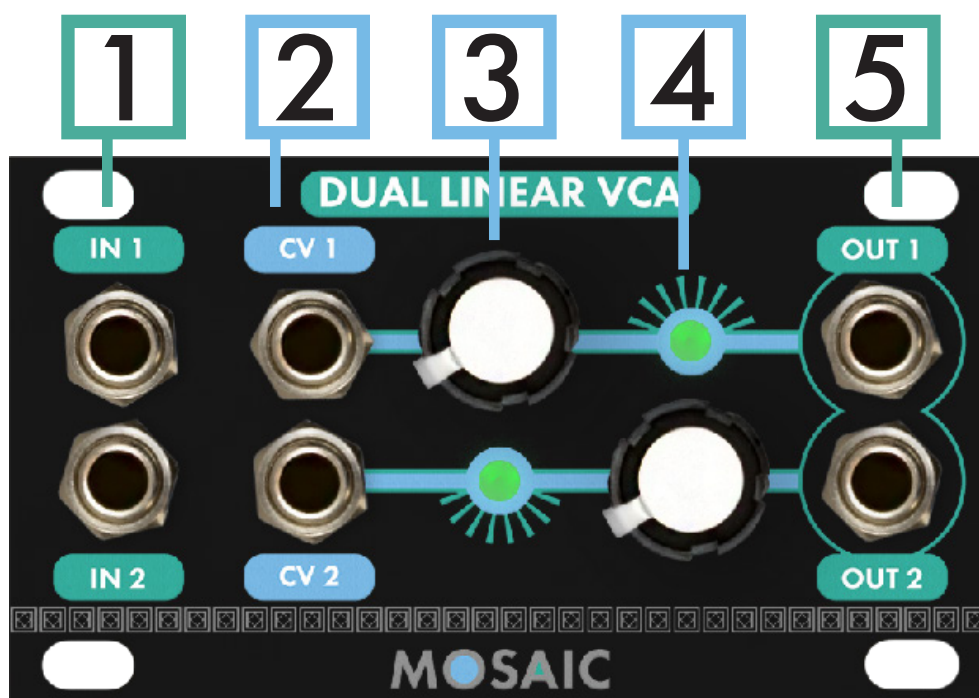
# DETAILS

## How It Works

A voltage controlled amplifier (or VCA) is an amplifier whose gain is controlled by voltage. By adjusting the control voltage input, you can change the amplitude of the signal passing through the VCA. If you are sending audio through your VCA, you now have the ability to adjust the amplitude, or volume, of said audio via external control voltage (CV) or an onboard potentiometer.

The Dual Linear VCA is composed of two VCA channels, allowing you to control the amplitude of two signals simultaneously and independently. Since the channels are DC-coupled, they can be used for CV signals as well as audio. Plug a signal into the left side of the channel, and out of the right side, then turn the channel knob to get started!

## Diagram



# DETAILS

---

## 1. Signal Input

Signal input jacks for channels 1 and 2. Channels are DC coupled, and accept both Audio and CV signals. When no signal is present in either jack, 10V is normalled to the inputs, allowing each channel to be used to output DC voltage without any additional patching.

## 2. CV Input Jack

CV input jacks for channels 1 and 2.

Range:  $\pm 10V$

## 3. Amplitude Potentiometer

Amplitude knobs for channels 1 and 2. Each knob is parallel with its respective channel. The amplitude is at 0V when the knob is fully counter clockwise, and 10v/2x gain when the knob is fully clockwise.

When a patch cable is present in the CV jack, the channel's potentiometer becomes the attenuator for the CV. For example, if you were to patch an envelope into the VCA, the knob will determine the peak point for your CV level.

Range:  $\pm 10V$

## 4. Amplitude LED

Visual indicator of the amplitude's voltage level.

## 5. Signal Output

Signal outputs for channels 1 and 2. When no signal is present in either input, both outputs send DC voltage without any additional patching.

Range: 10Vpp