

# MODii Dual VC Modulator

## (a) Synchronized Modulation

The top half of the MODii is a DUSG style function generator. Useful additions include an output SHAPE control, and voltage controlled gate DURATION via switch, knob, and cv input.

The bottom half comprises a VC decay envelope and a sample and hold circuit. The decay envelope is synchronized to the top half's function generator via shared use of the trigger and gate inputs. A VC trigger delay allows this synchronization to be broken. The sample and hold circuit is fed via the TIME CV input and stabilizes the decay time's modulation throughout the duration of the envelope. This S&H modulation voltage has its own dedicated output.

## Technical specifications

- 12hp
- 25mm depth
- 55mA/45mA , +12V/-12V current draw
- reverse power polarity protection

- 1 Modulator A outputs**  
Modulator A's principal output is OUT A. The TRIG input produces an A(S)R (0-8v). The GATE input slew processes incoming voltages. EOC A is high (5v) when there is nothing present at OUT A.
- 2 ATTACK A & DECAY A control knobs**  
Manual controls for Modulator A's attack and decay times.
- 3 DURATION control knob & switch**  
When the switch is set to INT, the DURATION knob controls an internally generated gate's length. When set to EXT, the duration is set by the input gate's length.
- 4 SHAPE control knob**  
Provides a continuously variable output shape to Modulator A as indicated by the panel graphics.
- 5 CYCLE/ENV switch**  
Sets Modulators A & B in either CYCLE or ENVELOPE mode.
- 6 DURATION, ATTACK, DECAY cv inputs**  
External cv inputs for associated manual controls.
- 7 DELAY B & TIME B control knobs**  
Manual controls for Modulator B's trigger delaylength and envelope decaytime.
- 8 DELAY & TIME cv input**  
External cv inputs for associated manual controls. TIME CV supplies the S&H voltage.
- 9 Modulator B output**  
Exponential decay envelope output (0-8v).
- 10 Sample & Hold output**  
DC voltage output sampled from the TIME CV input, and held for the duration of the envelope.
- 11 TRIG & GATE inputs**  
TRIG and GATE both trigger Modulators A & B simultaneously. GATE is a VC slew processor input.
- 12 Envelope indicator LEDs**  
These leds indicate the output status of either modulator. Modulator B's delay time is shown in green, while the envelope duration shows red.

