

# T-ZED OSCILLATOR

## Analogue TZPM

The T-ZED Oscillator implements through-zero phase modulation in the analogue domain.

Two operating ranges allow the T-ZED to act as an audio or CV source.

Standard waveshapes are present, with the addition of a variable SHAPE output.

## Technical specifications

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

- 1 Outputs**  
Simultaneous Sine, Triangle, Saw, Square, and variable Shape outputs. All outputs are affected by through-zero modulation. Voltage range is +/-5v.
- 2 FREQ**  
Coarse frequency control spanning 10 octaves. Acts as a voltage offset for the V/OCT input.
- 3 TUNE**  
Fine frequency control spanning 1 octave (+/- 6 semitones).
- 4 HI/LO Switch**  
Selects the operating frequency range of the VCO core. HI spans 10Hz-25kHz, and LO spans 0,1Hz-200Hz.
- 5 MOD INDEX**  
Manual control of the through-zero phase modulation index (depth). Corresponds to the MOD IN jack.
- 6 INDEX CV**  
Bipolar attenuator for the INDEX input.
- 7 SHAPE CV**  
Attenuator for the SHAPE input jack (0-5v)
- 8 SHAPE**  
Manual control of the SHAPE output waveform. Turning CW crossfades from Sine to Triangle to Saw.
- 9 V/OCT**  
External pitch control tuned to 1v per octave. Accepts negative voltage when FREQ is used as an offset.
- 10 SYNC**  
Hard sync input that resets the VCO core. Accepts any signal above 1,5V.
- 11 MOD IN**  
Through-zero phase modulation input (AC coupled).
- 12 INDEX**  
External input for INDEX CV (-5V to +5v).
- 13 SHAPE input**  
External input for SHAPE CV (0-5v).



**NB:** · The T-ZED Oscillator comes calibrated to the 1v/oct standard.  
· The -12v supply line is indicated on the backside of the module →