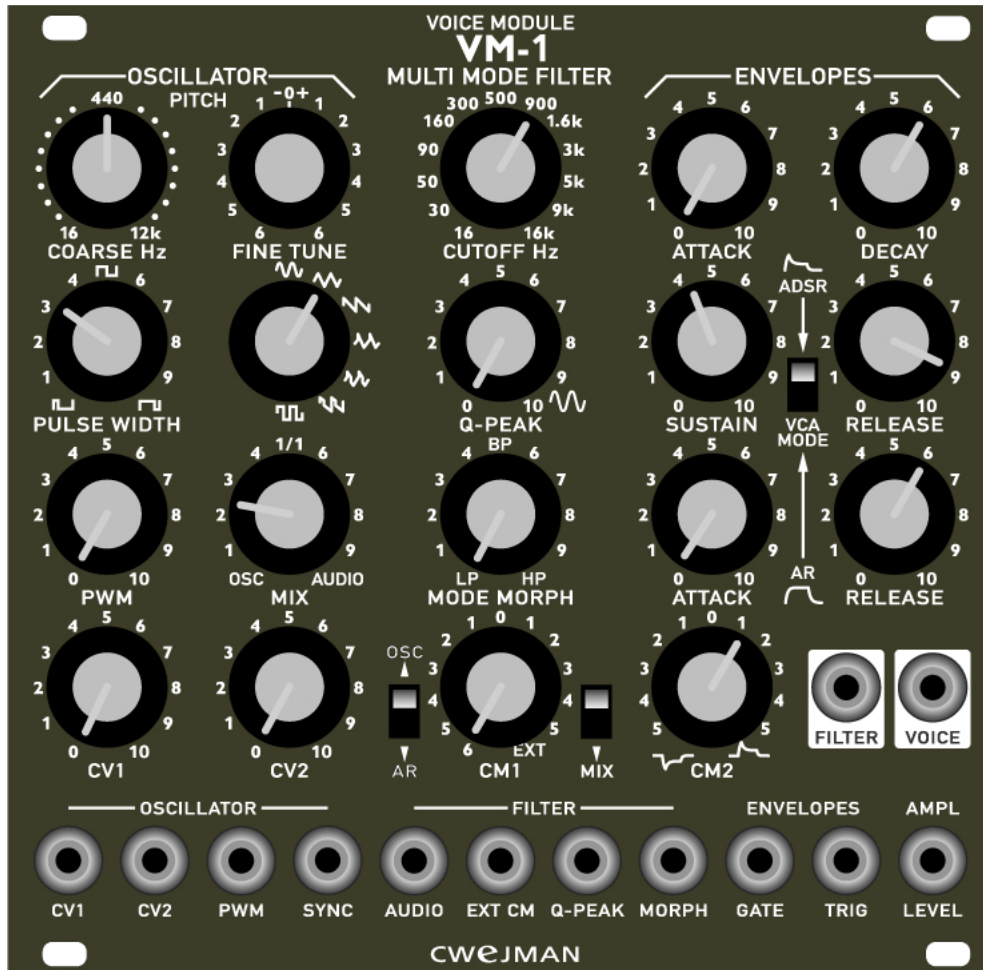


## VM-1, voice module

The VM-1 is a complete voice module with an oscillator, multi mode filter, amplifier and two different envelope generators. The OSCILLATOR can produce seven basic waveforms. The pitch is controlled manually by knobs COARSE and FINE and by attenuable CV1 and CV2 inputs. The pulse width can be controlled by knob "PULSE WIDTH" and by external signals inserted to attenuable input "PWM". The SYNC is provided by an external signal to input SYNC. The Multi Mode Filter consist of an audio mixer (MIX), filter and modulation controllers for cutoff, q-peak and output morph. The MIX control mixes two signals; oscillators output and external audio signal (AUDIO). The MMF is a four pole multi mode filter. The low pass, band pass and high pass mode are mixed at filters output by morphing function; knob MODE MORPH and controllable by an external CV signal MORPH and outgoing level is attenuated by a voltage controlled amplifier.



### OSCILLATOR

PITCH range 10Hz to 22kHz  
 Waveforms seven basic waveforms  
 PULSE WIDTH 5% to 95%  
 CV inputs CV1, CV2 for pitch  
 PWM, 50%/5Volts  
 SYNC, any shape

Inputs  
 AUDIO

external audio mixed with oscillators selected waveforms external mod. source  
 for cutoff external source for control of Q-peak, 0 to 5Volts  
 low pass, band pass and high pass and mixes between modes, 0 to 5Volts

### MULTI MODE FILTER

CUTOFF 16Hz to 16kHz  
 Q-PEAK flat to self-oscillating  
 MODE MORPH low pass, band pass and high pass and mixes

### OUTPUTS

VCA controlled by ADSR/AR

### ENVELOPES

ATTACK time 0.5 msec to 20 seconds  
 DECAY time 0.5 msec to 20 seconds  
 SUSTAIN level 0 to 100%  
 RELEASE time 0.5 msec to 20 seconds  
 GATE, TRIG 2 Volts treshold, any wafeform  
 Current 100mA  
 Dimensions 128.4mm (H), 101mm (B), 3 HE, 26TE

CM1 AR EG/ OSC or external signal, alt. mix of both attenuable ADSR or inverted ADSR modulation of filters cutoff  
 CM2

**CWEJMAN**  
 sound for demanding musicians