

Intellijel — Micro VCF

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[μVCF State Variable Filter Manual PDF](#)

μVCF State Variable Filter — CHEAT SHEET

MODULE OVERVIEW

- **3 Simultaneous Filter Outputs:**
 - 2-pole (12 dB/oct) Low Pass (LPF)
 - 2-pole (12 dB/oct) High Pass (HPF)
 - 1-pole Band Pass (BPF)
 - **Precise 1V/Oct Tracking (FM1)** — Can act as a sine VCO with self-oscillation
 - **Compact (6hp), low noise, easy FM, ideal for smaller racks**
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KNOB & CONTROL REFERENCE

Label	Type	Function
FREQ	Knob	Sets filter cutoff frequency. Modulated by FM1 & FM2 inputs.
Q	Knob	Sets resonance. Max = self-oscillating sine (no input needed for sine VCO).

Label	Type	Function
FM2	Knob	Amount & polarity of FM2 CV input. CW = normal; CCW = inverted; noon = off.
Input Atten	Knob	Attenuates input signal (IN). CW = no attenuation.
FM1 Atten	Knob	Attenuates FM1 CV input. CW = no attenuation (standard 1V/oct).

JACK-IN & OUT SUMMARY

Jack Label	Type	Description	Voltage Range
IN [A]	Audio In	Filter audio input	±5V typical
FM1 [B]	CV In	Cutoff freq. CV; 1V/Oct if full CW on FM1 Atten	±8V typical, 1V/oct tracking
LPF [C]	Audio Out	2-pole low pass out	±5V typical
FM2 [D]	CV In	Second cutoff CV; polarity/amount via FM2 knob	±8V typical
BPF [E]	Audio Out	1-pole bandpass out	±5V typical
HPF [F]	Audio Out	2-pole high pass out	±5V typical

USAGE FLOW

1. **Patch your source** into IN [A]. Adjust Input Attenuator to desired level.
 2. **Patch output:**
 3. LPF [C] = low pass
 4. HPF [F] = high pass
 5. BPF [E] = bandpass
Take one (or more) to your VCA or mixer.
 6. **Set FREQ** to taste.
 7. **Set Q** for resonance. Full CW = self-oscillation, sine oscillator—no input necessary.
 8. **Patch CV for modulation** (optional):
 9. FM1 [B]: Typical envelope/LFO/pitch, tracks 1V/oct with FM1 Atten fully CW.
 10. FM2 [D]: Additional CV, amount/direction as set by FM2 knob.
 11. Use white/pink noise as input to demo filter types.
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QUICK REFERENCE (TIP SUMMARY)

- **FM1 fully CW:** True 1V/octave tracking, ideal for playing notes or VCO use.
 - **Q fully CW, nothing patched to IN:** Sine-wave oscillator (2Hz–20kHz).
 - **LPF, HPF, BPF outputs may all be used simultaneously.**
 - **Self-resonance = clean, low-distortion sine wave.**
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TECHNICAL

- **Width:** 6hp
 - **Power:** +12V @ 25mA, -12V @ 24mA
 - **Depth:** 21mm
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