Cute Lab — Mom Jeans

- Manual PDF

Mom Jeans User Manual PDF

Mom Jeans (CuteLab) Eurorack Module Cheat Sheet

Pulsar synthesis VCO with unique density and grain-width modulation for advanced digital timbres.

Panel Controls & Reference

Knobs

#	Name	Function	CV Input (Jacks)	Voltage Range
1	Pitch	Sets base oscillator frequency	V/Oct (#14)	1V/oct standard, accepts ±V (typically -5V/+5V)
3	Density	Adjusts pulsaret grain width (main timbre control)	Density CV (#4)	±5V (typical

#	Name	Function	CV Input (Jacks)	Voltage Range
				CV range)
6	Cadence	Rate of internal density modulation	Cadence CV (#11)	±5V
7	Torque	Mod amount from internal modulator	Torque CV (#12)	±5V
10	Shape	Pulsaret waveform selection (sinc→triangle→rectangle→saw variants)	Shape CV (#13)	±5V

Buttons & Toggles

- **2: Range button** – Switches Pitch range:
  - Normal: 220Hz–880Hz
  - Extended (LED lit): 27.5Hz–3520Hz
- **8: Coupling toggle** – Quantizes internal mod rate (Cadence) to frequency ratios.
- **9: Quantization toggle** – Quantizes Cadence to stepped values related to pitch.

Jacks

#	Type	Name	Function	Voltage Range
4	CV In	Density	Modulates grain width	±5V
11	CV In	Cadence	Modulates modulation rate	±5V

#	Type	Name	Function	Voltage Range
12	CV In	Torque	Modulates modulation amplitude	±5V
13	CV In	Shape	Modulates the current waveform	±5V
14	CV In	V/Oct	Exponential pitch control (1V/oct)	−/+V, 1V/octetave
15	Audio In	Linear FM	Linear FM input (symmetric Hz mod)	±5V/line level
16	CV In	FM Index	Attenuverts Linear FM amplitude	±5V
17	Audio In	Sync	Hard syncs oscillator phase/rate	0–5V (typical gate/square)
18	Audio Out	Square	Classic square wave (bypasses Shape param)	±5V (audio)
19	Audio Out	Pulsar	Main output, full pulsar synthesis tone	±5V (audio)

#5 is a Cadence rate indicator LED.

Signal Flow & Core Functions

- **Pitch:** Set and control via knob, range button, and V/Oct CV for musical tracking.
- **Density:** Morphs between classic subharmonic and noise textures by stretching/overlapping grains; main sound-shaping parameter.
- **Cadence (rate):** Speed of the cyclic modulation of density (vibrato or audio-rate), CV controlled.

- **Torque (depth):** Depth/amount of cyclic density modulation, CV controlled.
- **Shape:** Smoothly crossfades through seven waveforms per grain, from soft to bright.
- **Coupling/Quantization toggles:** Force tight/stepped relations between modulation rates and pitch for more musical/organ-like timbres.

Key Usage Tips

- **Blend Square and Pulsar outputs** for rich bass or hybrid tones.
- **Extreme Density:** Far min and max produce noisy/rhythmic or digital textures.
- **Coupling/Quant ON:** Maintains consistent pitch and creates stepped, "organ"-like transitions between timbres.
- **Standard VCO use:** Use only Pitch, V/Oct, Linear FM, Sync, and Square Out.
- **Pulsar synthesis:** Use Density, Cadence, Torque, and Shape controls—modulate them for evolving digital sounds.

Manual Patch Inspirations

- **Super PWM:** Classic but richer pulse mod—from square and density mod.
- **Pocket Monsters:** Wild digital screeches—modulate pitch/ cadence.
- **Ghost Vibes:** Fine/fleeting granular shimmer—fast, gentle density mod.
- **Spelunker:** 8-bit, chirpy digital—low pitch + max density mod + saw/stepped shape.
- **Simple Sinc:** Smooth, sine-like—low shape, varied density for gentle harmonics.
- **Captain Crunch:** Bright, bell-like—pair audio-rate density mod with coupling.

Power: 10-pin ribbon (2x5), +12V: ~80mA; -12V: ~2mA

Generated With Eurorack Processor