

ECHON 6 - Product specifications

General:

- Feedback system with full analogue audio path
- 6-part multi-timbral architecture
- 6x Full analogue BBD resonators
- 6x True analogue VCO exciters
- 4x LFOs per voice (24 in total)
- 4x Random generators per voice (24 in total)
- Custom voice grouping (up to 6 groups)
- Comprehensive unison control
- Extensive modulation matrix (9 sources × 32 destination parameters)
- Global modulation attenuverters
- 216 user presets (6 × 6 × 6 structure)
- 1× 1/4" mono jack external input
- 2× 1/4" jack main outputs (L/R)
- 6× 1/4" stereo jack voice outputs
- 1× 1/4" stereo jack headphone output (independent level, pre-master monitoring)
- MIDI DIN In/Out/Thru ports
- MIDI USB-C (class-compliant device, no bus power)
- MIDI fully-remote controllable
- MIDI SysEx support
- Firmware update via USB-C
- 19" rack-mountable (black aluminum rack ears included)
- VESA-mount compatible
- Kensington security slot
- No display — 100% tactile operation

Exciters:

- Analogue VCO: Sine, triangle, ramp, and square waveforms
- External input: Accepts professional line-level audio source
- Crossfade control: Continuously variable blend between 2 VCO waveforms and/or external input
- Noise generator: Analogue S&H noise circuit (full white noise spectrum)
- Noise mix: Crossfade between waveform and noise source
- Envelope generator: ADSR with onset delay

- Output level: Adjustable exciter output level

Resonators:

- Input filter: 12 dB/oct low-pass filter (LPF)
- BBD feedback loop filter: 6 dB/oct low-pass filter (LPF)
- BBD type: 1024 stages per voice
- BBD circuit: High-precision control circuitry with pitch compensation
- BBD feedback type: Feedback polarity selector
- Feedback control: Fine adjustable level control
- Panning: Stereo spread control per voice
- Dry/wet mix: Adjustable blend of direct exciter and resonator signal
- Output level: Adjustable resonator output level

Modulation sources:

- Envelope generator: ADSR with onset delay, legato and loop modes
- Quad LFO: 4 LFOs per voice, uni-/bipolar, free or MIDI-sync, key reset, single-shot
- Random Generator: 4 random generators per voice with optional smoothing and crossfader with LFO waveform
- Polyphonic aftertouch: Expressivity for any modulation per key
- Modwheel: Assignable to any modulation
- Velocity sensitivity: Dynamic response for any modulation depth
- Key follow: Modulation scaling for any modulation across keyboard range

Technical:

- Audio outputs: Professional line level (+4 dBu)
- Audio input: Professional line level (+4 dBu)
- Power input: USB-C (9 V \pm 3 A)
- Power consumption: 25 W
- Tabletop Dimensions: 53 × 450 × 185 mm
- 19" Rack Dimensions: 4 U (+1 U for cables)
- Mass: 2.3 kg
- SysEx ID: 00h 22h 17h

