

STORE
Buy modules from Cherry Audio and other developers

MIDI JACK
Route MIDI to Voltage Modular's polyphonic modules

OSCILLATOR
The 'analogue' oscillator features PWM, FM and sync

AUX OUTS
Route modules out to separate host DAW mixer inputs

LIBRARY
Browse and load modules, with view filters and sorting

8-STEP SEQUENCER
A basic sequencer - we'd like more

6-WAY MULT
Each patch point can accept up to six cables at once



PERFORM
A bank of macro knobs and buttons for easy control

STEREO MIXER
Just one of VM's signal routing modules

FILTER
The multimode Filter module sounds great

CABLES
Drag either end of a cable to a patch point to re-patch it

Cherry Audio PC MAC Voltage Modular \$150

Will this new contender in the sparsely populated software modular synthesis market leave us electrified or fail to spark our imagination?

> Having been through a lengthy renaissance period, modular synthesis is now very much a part of the music technology landscape. Driven by Doepfer's hardware Eurorack system, and the mini-industry of module builders that's grown up around it, modular has captured the imaginations of musicians the world over, from hobbyists and dabblers to high-brow electronica artists and dance music producers.

It's surprising, then, that there aren't more Eurorack-style software modulars on the scene. While Softube Modular, Native Instruments Reaktor 6 Blocks and the free VCV Rack certainly scratch that itch, there's clearly room in the market for another entrant or two; so the arrival of Cherry Audio's Voltage Modular (VST/AU/AAX/Standalone) is a big deal. This ambitious new instrument/effect not only hopes to set the standard for software-based modular synthesis in terms of sound and functionality, but also allows anyone - established developers

and Joe Public - to build and even commercially release their own modules.

Hard boiled

With its skeuomorphic design and draggable patch cables, Voltage Modular looks and operates just like a hardware modular setup - for better and/or worse! At the top is the ever-present I/O Panel, where all interfacing between Voltage Modular and the host system - be that a DAW or your audio/MIDI interface in standalone

"Voltage Modular looks and operates just like a hardware modular - for better and/or worse!"

mode - is handled. Like the real thing, Voltage Modular works with (virtual) control voltage (CV) signals, adhering to the usual 1V/octave standard, and the I/O Panel contains all the expected inputs and outputs: CV outs for Pitch, Gate, Trigger, Velocity, Aftertouch, Sustain, Bend and Mod Wheel, as well as Transport outs for slaving sequencers and other modules to the host DAW's transport controls. Four Audio Ins enable external signals to be fed into Voltage Modular's filters and other processors for effects treatment, or deployed as CV and modulation source signals; and six extra Audio Outs can be routed to separate DAW mixer inputs. The big MIDI jack allows polyphonic note data to be routed to compatible modules - see below.

The row of knobs and buttons in the Perform strip are assignable macros, for ready-access control of any number of parameters within the patch constructed in the rack space below. Patching is done by pulling any number of

“The dots that travel along the cables to indicate signal flow are a lovely touch”

modules into the rack from the (searchable and filter-able) Library on the right, then dragging patch cables between CV and audio patch points, just as you would with a hardware modular. Click-holding a patch point highlights all viable routing targets for it in the rack, and every patch point can receive up to six cables at once, via the pop-out ‘six-way mult’.

Each cable can be set to any colour you like, and the animated dots that travel along them to indicate audio or CV signal flow are a lovely touch. However, although the cable visuals can be tweaked for clarity and graphical simplicity, on our Retina display test Mac, the animation lag was pretty intrusive, even with everything set as low as possible. Cherry Audio are addressing this, but it’s worth noting at this point.

Bits and pieces

The 70 modules that ship with the Voltage Modular Core package cover the essentials and then some. For signal generation, there’s the standard Oscillator, the simple Drum Oscillator, the pitch-tracking Sub Octave generator, Noise Generator and Poly Oscillator. The last works with the aforementioned MIDI Jack and is quite unusual, with separate level controls and outputs for four simultaneously output octaves, and a built-in amp and AR envelope. Its inclusion is very welcome, making it a snap to get polyphonic patches up and running.

There are four filters, too: 12/24dB multimode (low-, high- and band-pass), Bandpass, Notch and the very basic Drum HP/LP. It’s not a huge selection, but enough to get most jobs done.

Modulation and control sources include three excellent LFOs, an ADSR envelope, an envelope follower, S+H, an eight-step sequencer, an arpeggiator and a burst generator; while the effects take in reverb, delay, chorus, EQ, compression, distortion and phasing. Last but not least, the Utilities category is home to all manner of MIDI, audio and CV manipulators, mixers, converters, splitters, etc. Fun!

Alongside the Cherry Audio modules, you also get Misfit Audio’s Electro Drums collection,



The Poly Oscillator makes for a great starting point when building polyphonic patches



Just look at those bad boys! PSP Audioware’s modules most definitely rock

Retail therapy

While the modules included with Voltage Modular cover a lot of ground, they’re by no means the end of the story. Integrated directly into the module browser, the Voltage Modular Store is already home to a healthy selection of add-on goodies by Cherry Audio themselves and premium effects plugin developers PSP Audioware, ranging in price from \$10-50.

Most of the PSP modules are extracted from the company’s old-but-still-awesome Nitro multieffects plugin (9/10, cm74), highlights including nitroPhaser, the nitroBQF dual parallel filter, nitroPitch pitchshifter, and nitroLoFi digital distortion. The

influence of other PSP plugins can also be felt in the PSP Delay, Plate, Space, Spring, Chorus and Flanger modules.

Hopefully, having PSP onboard will draw other equally illustrious developers to the Store. It feels like early days, but the nitro series makes a great showcase for the potential of VM as a development platform. Indeed, you don’t have to be a big-name dev to get a look in, either, as anyone can make their own modules and submit them to Cherry Audio for potential placement in the Store. All you need is the Java-based Module Designer application, which costs \$200 on the Cherry Audio website. Go for it!

adding a further 15 modules. These include a bank of tasty 808 emulation oscillators, a 909 kick drum and a very usable drum sequencer.

All of this is put to good use in a preset library stuffed to the gills with exemplary basses, leads, polysynths, sequences, strings, FX and more. It’s not just a fabulous collection of sounds in its own right, but also a fascinating resource for learning the modular synthesis ropes.

When you want to move beyond that lot, the Voltage Modular Store awaits, and you can even make your own modules – see *Retail therapy*.

High Voltage

Voltage Modular confidently meets its own ambition, and even with minimal third-party developer involvement at this point, it feels like a system with a real future. Cherry Audio speak of 64-bit double precision maths, and modules operating on individual samples at zero latency, but all you really need to know in that regard is that Voltage Modular sounds fantastic and delivers the ‘full onscreen modular experience’, as it were. We’d like to see more sequencing tools added to the Core set, the lack of module documentation irks, and the graphics engine needs sorting, but all in all, Cherry Audio’s colourful modular is hugely impressive. **cm**

Web www.cherryaudio.com

Alternatively

Softube Modular
NA » NA » \$89

This Eurorack-inspired software modular was developed in conjunction with Doepfer

VCV Rack
NA » NA » Free

Get into modular for nothing with this open source wonder

Verdict

For Powerful and authentic modular synthesis system
Excellent preset library
PSP Audioware modules are brilliant
Great fun to mess around with

Against Not enough sequencing tools
Performance issues on Retina displays
Can’t save individual module setups

Voltage Modular is a monster right out of the box, but it’s the immense scope for expansion that truly sets it apart

8/10