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SUPERBOOTH25: AJH Synth Unveils Matrix VCF, Bringing 32 High Quality Resonant Filters into a Single Analogue Eurorack Module**

*Taking its renowned filter designs to the next degree, the Matrix VCF multimode filter and VCA may be the most versatile Eurorack filter ever*

**Newcastle, UK, 1 May 2025** — **AJH Synth announces the launch of its latest groundbreaking Eurorack module: the Matrix VCF. With sixteen different filter types and two different resonance options on each for a total of 32 assorted resonant filters, the Matrix VCF may be the most versatile VCF ever, presenting an unparalleled degree of sonic flexibility in a single 14 HP analogue Eurorack module.**

As with other AJH Synth modules, the Matrix VCF also presents powerful CV options: each filter and filter type selection can be controlled manually through CV control, and an easy-to-read LED matrix provides clear visual feedback on current filter selection. This amazing module also includes an integrated VCA with dedicated input and output controls, a peak level LED, CV control of resonance, and of course the AJH Synth legendary analogue build quality.

"After two years of development we have finally released what we consider to be the most versatile Eurorack VCF & VCA ever," said Allan Hall, founder of AJH Synth. "As with our many other modules, we used the very best vintage analogue circuitry as the starting point for the design. Then we chose to emulate the filter from the rare and highly desirable Oberheim Matrix 12 synthesiser, while vastly expanding both the sonic pallet and feature set."

**Matrix VCF: Opening a new chapter in filtering and control**

The core circuitry of the Matrix VCF is based on the rare and highly sought after Oberheim Matrix 12 synthesiser, and as other AJH modules, carries an all-analogue signal path. The Oberheim Matrix 12 VCF originally offered a total of 15 filter types, but the AJH Matrix VCF expands this to 16, with the addition of AP4: a full four pole all pass phaser mode. The new module also adds a unique P-Vox resonance distortion and overdrive circuit that completely changes the sound character of the resonance and is able to force all of the filter modes into self-oscillation. This effectively *doubles* the filter variants. while broadening an already very impressive set of sonic possibilities.

Beneath the 14 HP panel lies plenty of filtering options, including tried and true favorites: low pass filters with a choice of one, two, three or four poles, band pass filters with two or four poles, high pass filters with one, two or three pole options, as well as notch filtering and four complex, combination filter types. To cap it all off, the circuit design also includes a four-stage phaser with two types of emphasis that can be forced into tuneful self-oscillation for even more sonic firepower.

A switch on the front panel imparts a highly resonant distortion circuitry, by the filter from the Soviet Polivoks synthesiser — which has been updated and improved with vintage analogue components. Best of all, this Polivoks-inspired distortion character can be applied to all filter types on the Matrix VCF, completely altering the sonic character for a 'Jekyll and Hyde' effect. The resulting waveforms are harmonically rich and wide-ranging in scope. Finally, since a VCA is hard-wired to the output stage, users can simply patch in envelope or an LFO to the VCA input and connect a VCO to the audio input for a complete synth voice (with a choice from 32 different filters!) using only three modules!

The Matrix VCF includes the following filter modes, each of which can be altered via the P-Vox switch for a total of 32 different filtering options.

1 - Four Pole Band Pass

2 - Three Pole High Pass combined with One Pole Low Pass

3 - Three Pole All Pass combined with One Pole Low Pass

4 - Two Pole Notch combined with One Pole Low Pass

5 - Two Pole Low Pass

6 - Four Pole All Pass (Phaser)

7 - Four Pole Low Pass

8 - Two Pole Band Pass

9 - Two Pole High Pass combined with One Pole Low Pass

10 - Three Pole High Pass

11 - Three Pole All Pass

12 - Two Pole Notch

13 - One Pole Low Pass

14 - Two Pole High Pass

15 - Three Pole Low Pass

16 - One Pole High Pass

The AJH Synth Matrix VCF is already in production and available now in both silver and black faceplates through the company's exclusive network of worldwide distributors. For pricing information and complete specifications, please visit the [AJH website](http://www.ajhsynth.com/).

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***About AJH Synth***

*AJH Synth is headed up by Allan J Hall, who has been involved with synths, electronics and music for several decades. He started by building a guitar fuzz box at the tender age of 12 and his interest in synthesisers and electronic music soon followed, fuelled by an unhealthy overexposure to early Tangerine Dream, Pink Floyd, Vangelis and Kitaro. For the last 15*

*years he has been building and modding synth systems both for himself and other electronic musicians, as well as spending some time as a semi-pro musician playing keyboards in several rock and tribute bands. Allan spent five years as a service technician repairing and modifying Moog, Arp, Korg, Roland and other analogue synthesisers along with some Pro Audio design work, previous to this he spent two years designing and building "boutique" valve (tube) guitar amplifiers. AJH Synth are based near Durham, in the northeast of England, where this small but enthusiastic bunch of synth heads now indulge their passion for all things modular.*

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