# Elysia xfilter 500

# £714

Elysia once again buck the trend for slavish retro designs and create a unique stereo EQ filter to aid the creative process. *Robbie Stamp* slots one up

# INCLUDES AUDIO

# WHAT IS IT?

500 series (two slot) Class A four-band stereo equaliser

# CONTACT

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### HIGHLIGHTS

- 1 Massive range of tone shaping capabilities
- 2 Switchable resonant high/low filters
- **3** High quality signal path and plenty of headroom



he triumvirate of recording building blocks (preamp, compressor, EQ) have been rehashed to the point where choice becomes a chore, picking through the Neve/API/SSL clones.
Occasionally someone will produce a unit that stands out by virtue of function or aesthetic, and for Elysia it is both. The crisp dark blue fascia and distinctive silver knobs are always arranged around the backlit brand logo. For the xfilter 500 the eight knobs control four bands of stereo EQ and filtering on this double slot 500

series unit.

The xfilter 500 offers four overlapping EQ bands: high shelf, low shelf, low mid peak and high mid peak. The mid peaking bands have ±13dB of cut/boost, two bandwidths (narrow and wide Q) and range from 45Hz to 16kHz. The shelving bands feature a cut/boost of ±16dB and can be switched to resonant low/high cut filters. In this latter mode the gain knob becomes a resonance control. There is a fifth filter included, the Passive Massage, a fixed frequency passive LC (inductor and capacitor) filter which gives a few dB of resonance around 12kHz before sloping off the high frequency range.

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# Get your tweak on

The xfilter 500 is a stereo EQ with a single linked control set of 41 step detented potentiometers. Though not in the same league as Grayhill or Elma stepped ladder controls, with a thorough selection process the two sides can be (and have been) closely matched – I found a maximum of 0.3dB difference in a few spots between channels, but mostly 0.1dB if at all. Thanks to the double slot size the controls are easy to work with and allow non-sausage fingered users to get a proper two-handed tweak on, which with the high and low filters in resonant cut modes is a must as it's a lot of fun. The only drawback of the layout is that the depth of the knobs obscures the legending - it works best around

Working with the xfilter 500 it quickly becomes clear how much the band ranges overlap, making for a very flexible and creative EQ. Cutting with a shelving filter and then boosting within that range using a peaking EQ (or vice versa) is a classic shaping technique that can gently shape a source, or radically re-voice it at higher gains. It is important to note that one can easily use the full gain range of this unit without encountering any headroom problems, except for whatever follows it in the chain. I've never been a fan of variable Q controls on parametric equalisers as it seems just another choice to make, so a single switch for each of the mid bands between wide and narrow Q is about as much as I'd want. I found both useful depending on the application, though I tend to be a wide Q kinda guy.

# Complete control

Before I get to the bit that really excites me it is worth saying that the basic EQ functions of the xfilter 500 are excellent and yield top quality results on all manner of sources: mixes, drums, vocals, synths (mmmm, big pads), anything with a reverb to pick out, etc. This will definitely work well strapped across a mix buss for a little top and tailing, and yet it'll let you get radical with a bass synth or drum loop.

The detented controls make it easy to step back and forth to make incremental changes, and yet I could sweep around as an effect without hearing the stepping, which is the strength of detented pots over stepped ladder attenuators... but that's another story. The shelving filters can reach extremely high and low allowing you to

add that airy band or lift the subs without booming out the mud. I tried turning all the gains to full boost, worked the frequency controls and managed to get some great fattening effects without ending up in a world of (bad) phase distortion, a testament to the quality of design here.

# Resonance control

The high/low shelves are great - gentle enough to use on a mix and with enough range to seriously trim out the ends of the spectrum, but when they're switched to resonant high/low cut they become fun, though a professional fun, naturally. The resonance control (gain knob) doesn't really start lifting the knee frequency noticeably until well after the 12 o'clock position, but when it does this becomes a fantastic tool for pulling up a kick drum, zoning in on the sizzle of a cymbal or the noise generator fizz on a synth. With the top of the high band being 28kHz, some serious swish can be teased out of sources - I found this band excellent for tilting the highs of ribbon mic recordings, though at well below 28kHz! With the resonances wound up and a hand on each



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frequency control you can get down to some seriously swooshy filter sweeping, though it is also helpful for finding the static filter points for framing and exciting a sound.

Alongside the fun of the resonant filters is the Passive Massage, a one switch inductor based filter, or LC filter (L being the symbol for inductance and C standing for capacitance). As well as gently sloping off the high end it

introduces a resonance peak around 12kHz which can really highlight the sizzle of a source that needs livening up. Not only a pleasing sound, it also leaves the high mid and high shelves free for whatever else you may need.

Poorly designed EQs force trade-off cuts and boosts to stop them incurring too much bad phase distortion on your source, which often means falling short of where you really want to go. The good ones let you spin around opening up numerous tonal possibilities, or let you quickly zone in on the sound you want to make with the smallest

of adjustments. The xfilter 500 is one of these. It'll behave like a smooth professional and you can trust it to enhance without degrading, and yet it offers a world of radical reshaping that makes it a highly creative tool. Elysia do not make cheap products but try and find a stereo EQ of this calibre in 19-inch rackmount or 500 series for under £1,000. I'm having a problem thinking of a reason not to buy one. FM

# What Makes an EQ Passive?

The Passive Massage switch engages a passive LC. but what does that mean? The filter uses an inductor and a capacitor. They form high or low pass filters depending on their arrangement.

Other combinations for filters are RC (resistor/ capacitor), RL (resistor/

inductor) and the more complex LCR (inductor/ resistor/capacitor), All filters/EQs are some combination of these.

The 'passive' bit refers to the components, as inductors, resistors and capacitors are all passive. not needing a power supply to operate. Due to

their passivity they tend to waste current, and reduce signal level, so are usually followed by an amplifier (buffer) to make up lost gain. Another way to approach this is to include the passive components in the feedback loop of an amplifier, which is referred to as an 'active' filter.

# FutureMusic VERDICT BUILD VALUE EASE OF USE VERSATILITY

An original modern slice of EQ for mixing and tracking with a serious amount of range and flexibility.

# **SPECS**

I/O: 2x XLR (inputs), 2x XLR (outputs) Dynamic Range: 120dB (20Hz - 22kHz) Noise Floor: -98dBu (20Hz - 20kHz, A-weighted) Frequency Response: <10Hz - 400kHz (-3dB) THD+N: 0.0018% @ 0dBu (20Hz - 22kHz), 0.005% @ +10dBu (20Hz - 22kHz) Low Shelf: 20Hz — 900Hz, ±16dB, switchable to resonant low-cut filter Low Mid: 45Hz - 2200Hz, ±13dB, switchable wide/ narrow Q  $\label{eq:high-Mid:} \textbf{High Mid:}\ 300 \text{Hz} - 16 \text{kHz},$ ±13dB, switchable wide/narrow Q High Shelf: 700Hz - 28kHz, ±16dB, switchable to resonant high-cut filter
Additional Filter: 'Passive Massage', passive LC filter (lowpass) with 12kHz resonance peak Current Draw: 210mA (105mA per slot)

# **ALTERNATIVES**



# Maag Audio EQ2 £702

A boiled down, single channel Nite EQ. It features the famous Air Band (40kHz shelf) and a low mid peaking band from Sub to

# www.maagaudio.com



# Kush Audio Electra

# £504

With two overlapping proportional Q (Q narrows as gain increases) bands, a fixed low shelf, variable HPF and sweepable high shelf.

# www.thehouseofkush.com



Tonelux EQ4P

More proportional Q, this time with two low bands and two high. The other three bands can switch to fixed 1/3 octave Q instead of proportional Q.

www.tonelux.com