



## A-Designs EM-EQ2

Two channels of retro EQ with familiar knob-count and layout? **GEORGE SHILLING** says this is more than another homage to that Pultec thang...

There is apparently no end in sight to the steady stream of Pultec-inspired outboard EQ boxes — even the delivery couriers seem to be getting blasé about them; the fellow delivering this one didn't even want my autograph. This particular Pultec-alike is made by A-Designs of California, and somehow crams two channels of this classic EQ design into a 2U. All the normal expected Pultec EQP-1A controls are present and correct for both channels, but the compact size tells me this is not an exact clone (*You've always been observant like that, Ed*). There are few initial clues as to how this has been achieved. There is no manual in the box, but instead a little note like those you get in hotels about washing towels: they're saving the environment by providing PDFs on their website instead. But my hopes of clues are dashed again, as no such file exists on the website. I'd better plug it in and have a closer look then...

On further inspection, it is apparent that the EM-EQ2 is a solid state machine, eschewing the original inspiration's valve circuitry for a theoretically cleaner and more robust modern transistor scheme, which also has the useful by-products of less generated heat, a smaller and lighter box, and, best of all, a considerably lower price than tube-based rivals (UK£1625 + VAT).

A-Designs previously managed to cram a Pultec-style EQ into a 500 Series module as the EM-PEQ, and the unit under review is effectively a stereo version of that but with a bit more front panel space. Interestingly, there is also another A-Designs stereo EQ, the HM2EQ Hammer, which doesn't look anything like a Pultec, but ironically does employ valve circuitry.

Investigating the history of A-Designs, it turns out that its founder and designer Peter Montessi is a musician who learned the business of pro-audio manufacture at CM Automation, the company that brought us the early Motor Mix fader unit, something of a classic design, and the first popular fader controller for Pro Tools. But 14 years ago he struck out on his own, and A-Designs was instrumental in the resurgence in popularity of 500 Series lunchbox modules. Montessi introduced a Pultec-style EQ for the 500 Series lunchbox that he states was never meant to be a clone, accurately pointing out that it is extremely rare to find two original Pultecs that sound 100% the same. But he is a fan of the way Pultecs cut and boost at the same time, and the A-Designs models replicate this effect, and indeed clone the original controls found on the EQP-1A. So while many manufacturers (like Neve) scramble to cram their designs into a 500 Series format, A-Designs is doing the opposite, turning a 500 Series design into a 19-inch rackmounter for those of us with fat fingers and deteriorating eyesight...

Internal construction is very neat, with CineMag input and output transformers employed on each channel's entirely separate circuit board, and the toroidal mains transformer hidden behind metal partitions for improved shielding. In the main section, the PSU circuit's transistors benefit from generous heatsinks. This review model is specifically a 240V version. There is venting in the case above each of the three circuit boards.

The thick front panel is a conservatively designed affair, with clear no-nonsense white legending on a black background, and smallish aluminium coloured Focusrite Red type knobs, with neat black pointer lines. Boost, Attenuate and Bandwidth knobs are simply scaled 0 to 10, marked with white dots and half-point dots in-between. The two channels are arranged side-by-side in a fairly faithful arrangement, with the Boost and Attenuate controls along the top row, and frequency selection and bandwidth knob along the lower row. The pots are smooth but nicely damped; the switches don't feel particularly special, but operate positively. There are mini-toggle switches for EQ In/Out at the left of each channel, and a larger Power On/Off toggle on the far right, accompanied by a turquoise jewel-covered lamp. I'll clarify the controls, even though they are pretty much the same as original Pultecs and most clones. The low band includes Boost and Attenuate knobs, with frequency selection of 20, 30, 60 and 100Hz. The mid/high boost band has Boost and Bandwidth knobs, and frequencies of 3, 4, 5, 8, 10, 12 and 16kHz. The High shelf cut comprises an Attenuate knob and a frequency selector choosing between 5, 10 and 20kHz.

If you have any worries that the EM-EQ2 might sound cold or clinical compared to a valve original, don't. With no fuss or bother, the Low Frequency Band wonderfully warmed a simple acoustic guitar and vocal track when strapped across the mix, simply by boosting 5 and attenuating 5 at 100Hz. And the High Boost Band did that familiar 'blanket removal' effect on the vocals

particularly well, without introducing any harshness. It is super-sweet at 10 or 12kHz; my mix sounded lovely, musical and open with a boost at 10kHz of 5 at maximum bandwidth. Narrow bandwidth settings have all the poke you expect, delivered very cleanly at the chosen frequency.

I also plumbed the EM-EQ2 across bass drum and snare drum mics during a drum tracking session, where I made good use of its features. A big treble boost on the kick brought out the smack beautifully, and the bottom end 'simultaneous boost and cut' trick came into its own; after a few minutes juggling the controls, the bottom end sounded fat, tight, and all those other adjectives you use when describing a great low-end! Similarly, my Black Beauty snare drum responded well to a huge mid-treble boost, and some fattening at the low end at 100Hz. The boost and cut knobs work in a lovely progressive fashion — on some clones, nothing seems to happen until half way up, whereas here, although the effects can be subtle, there seems to be more of a linear progression. The same goes for the High Frequency Attenuate knob. And there is certainly less colouration with the controls set 'flat' than you tend to get with a Pultec.

It takes plenty of level to worry the EM-EQ2, it can take just about everything you might throw at it from Pro Tools or tape, and beyond that it starts to break up gracefully. Yet the noise floor is extremely low, and undoubtedly better than you would achieve with any valve unit. The other thought that struck me repeatedly, was that this is processing clearly beyond what is achievable 'in the box', with a real openness, and a natural flow to the signal.

The EM-EQ2 can be summed up as a subtly smoother, quieter and cleaner version of a Pultec, that doesn't lack any of the original's musicality and sweetness. There is probably a little extra cleanliness in the bottom end, which is as welcome as the extra air apparent at the top end. The transformers sound really appealing, and the A-Designs unit feels honest, wholesome and dependable. With a price-tag at a fraction of that for a pair of originals or 'clones', and 4U less rackspace required, this is highly recommended. ■

### Contact

**A-DESIGNS, US:**  
Website: [www.adesignsaudio.com](http://www.adesignsaudio.com)

### PROS

Super-sweet Pultec-style EQ; clean sound; compact size; excellent value

### CONS

No manual.

### EXTRAS



The JM-3001 is a preamplifier, equaliser and instrument input housed in 1U. It has three inputs — microphone, instrument and EQ/insert — which may be used together or independently. The product is also equipped with a 3-band parametric EQ and high/low filters, as well as two independent transformer balanced outputs (microphone and EQ).

The heart of the JM-3001 is its C12X discrete transistor op amp designed by Carl Johnson that operates on +/-30V DC rails. The C12X is a high-gain, fast-slew, stable audio block with virtually no DC offset over the audio spectrum and is capable of driving a 50-Ohm load at 50Hz with very little current draw. It is used in the microphone preamp, instrument input amp and main output/EQ output stages of the product.