"For me the Chord M Scaler was a digital revelation"

Noel Keywood

I didn't know what to expect from Chord Electronics M Scaler: another device for tiddling up dodgy-digital perhaps. There are no end of contraptions that re-clock to reduce jitter, up-sample, filter and do the fandango – all at the same time. They offer improvement – but sufficient improvement? Debatable. M Scaler would join the debate, the cynic inside thought.

Not so: it leads the debate. The shock of M Scaler is sudden revelation of what digital can sound like, which then implants into the brain the expectation of what it is meant to sound like – if you see what I mean! I thought digital sounded like exhibit-A, M Scaler says it sounds like exhibit-B. Oh.

As a reviewer I get to hear great digital from top quality DACs, nowadays preened by all sorts of mystical processing schemes.

Then there's DSD that comes at you from another direction, barely sounding digital at all. Think open, spacious, atmospheric and analogue like.

But now, having heard M Scaler, they've faded backwards in sonic merit.

I walked into the office on a quiet Sunday, span CD via our Audiolab M-DAC+ and heard a sound that was image-vague, slightly turgid and generally imprecise. But only after hearing M Scaler. Before this experience M-DAC+ was a go-to for CD and hi-res replay. Now, suddenly, not so.

But the issue is a little more complex. M-DAC+ can be fed from M Scaler and with this happening it gets right back into the fray. I'll need to explain why.

M Scaler is a one-million tap digital filter, not a DAC like M-DAC+. Its designer, Rob Watts, feels it is a milestone in digital. Since he has been muttering darkly about digital since the early 1990s, from when I first met him, saying at least 352kHz sample rate was required when such a thing wasn't possible, Rob's sense of belief and determination here is undisputed – and unique.

Important too that Chord Electronics MD John Franks, similarly a skilled and experienced electronics design engineer, recognised Rob's ability and was prepared to support it financially, leading to the company's range of unique digital products – not available, imitated or understood elsewhere in the world.

Some may like to pass all this off as digital hocus-pocus, but you can't in view of the class leading measured performance we confirm by measurement.

Chord Electronics face a commercial dilemma with M Scaler. They could have made it exclusive to their DACs, via DBNC connection, but they have not. It has been given digital outputs so it can be used with any DAC. This is commercially savvy because it opens up a wider potential buying audience. But pehaps not so savvy in that it also suits and cleans the sound of rival products, such as Audiolab's M-DAC+ – and perhaps many others. Ouch.

The idea of using M Scaler with other DACs got me intrigued. If, as Rob Watts claims, a one-million tap digital filter sorts out CD then this little box of tricks could be revelatory – and that's how it turned out. I have now been re-programmed to a different expectation of quality from CD.

But, should you have a fat wallet that needs lightening and a local Chord Electronics dealer willing to help – a small warning. It worked with Audiolab's M-DAC+ but only up to 176.4kHz output; M-DAC+ fell silent with 352.8kHz no matter what cable I used. With Arcam's CDS50 it worked at all output sample rates, including 352.8kHz, but Arcam's display said it was receiving 44.1kHz and I heard no subjective improvement. So the issue of DAC compatibility is hazy.

M Scaler with Hugo TT2 leaves the pack behind in measurement but M Scaler in itself has little measurable impact – although perhaps not with time-domain impulse response measurements I haven't yet applied.

It is with listening that the mists – even the fog – of digital clear. M Scaler took CD and expunged its sins! This threw light onto decades of my insistence that digital (meaning CD) was not as perfect as claimed (and widely believed). Now, in addition to all its other identified faults that degrade sound quality, M Scaler shows that more is needed to get the best from CD: proper filtering.

M Scaler cleans up PCM digital recordings by clearing muddle and imposing focus. It also cleans and clears hi-res (24/96) if to a lesser degree. It does not bring CD up to good hi-res; the limitations of 16bit code are still there. All the same CD from M Scaler was more composed and impressive than everyday hi-res not processed through M Scaler.

M Scaler processes all digital except DSD but when I listened to Diana Krall's 'Narrow Daylight' in 24/96 via M Scaler, then DSD via M-DAC+ (that doesn't turn DSD to PCM) I felt M Scaler just had it. More concise.

Such a comparison is 'interesting' rather than definitive. But it does suggest that normal digital (PCM) can sound pretty damn impressive when well processed. For me all this was a digital revelation. M Scaler brings both the subject and the music into focus. I hope we get to hear more on all this very soon as it comes onto the open market.