

# Micromega MyDAC

Sized like a stack of four CDs, Micromega's MyDAC promises audiophile bliss in a small package with a genuinely sane price – is its cult following warranted?

Review: **Ken Kessler** Lab: **Paul Miller**

A demo held in January at CES, for a system with a price close to that of well-appointed Bentley, hid a secret. It was a small box whose cost wouldn't have paid for the plugs on the system's interconnects. We found out later that this sublime set-up employed a Micromega MyDAC.

We're at a point in audio's history when ultra-compact, low-cost desktop systems are replacing full-blown separates, and when computers have been elevated to the same importance once held by tuners or turntables. The MyDAC is so frankly indicative of this paradigm shift in consumer preferences that it could serve as a totem for the transition. That it is so competent and enjoyable may be lost on the majority.

## WHO BUYS MINI-DACS?

However, Micromega's MyDAC does not represent any huge conceptual leap, for we are now awash with affordable digital hardware from companies as varied as HRT, Audioquest, Musical Fidelity, and dozens of others. Sub-£300 DACs have come of age because of the swing toward formats where computers have usurped the role of preamplifiers. And yet there was a time not so long ago when people were questioning the need for standalone DACs.

Given that most users of Macs or PCs as their primary sources would not seem likely candidates for something external that improves sound quality, it begs the question: who buys mini-DACs, especially as 'real' audiophiles already own high-end processors? The answer is to regard them



as a by-product of the boom in sales of superlative headphones and headphone amplifiers – for users who wouldn't even contemplate speakers, let alone separates.

Housed in a not-too-appealing ABS case (the black option looks better than the white), the MyDAC is minimalism in its most palatable form. By that, I mean there is no obvious sacrifice, other than a decent metal chassis. Sized exactly like a pile of four CD jewel-cases, with a footprint almost identical to a Mac SuperDrive's 140x140mm, it actually looks like a reduced version of a Mac mini.

Across the front are four lights and a horizontal anodised aluminium rotary for source selection. The lamp to the left indicates power-on when white, or standby when glowing red. All lights flash when no signal is present while powered up,

glowing steadily once locked. The rotary's four positions include off/standby, USB, S/PDIF coax and Toslink optical. At the back are inputs for the three sources, a tiny toggle to choose between USB 1.0 and 2.0, sockets for analogue line-level output and ingress for the AC cable, the MyDAC not requiring an external power supply.

France loves Apple, and this is French, so the mating of iMac and MyDAC was easily accomplished. The USB input was set for USB 2.0 and the Mac found it straight away, while there's a custom driver for PC users.

The MyDAC uses a low-noise power supply, covering all voltages. There are no electrolytic capacitors in the audio section, 'neither in the audio low noise power supply, nor in the audio path,' says Micromega. USB works asynchronously, at up to 24/192.

## PEDIGREE AIRS

Suffice it to say, my desktop system hasn't sounded better. Fitted between the Mac and the Quad 99 preamp/909 power amp, with Pioneer SP-BS22-LR speakers (yes, the ones that cost \$129 per pair), the MyDAC

'Boy, does the MyDAC sing. And with far less jitter than Piaf'



**LEFT:** Connections don't come any simpler – single-ended analogue outs on RCA, optical and coaxial S/PDIF digital inputs plus USB switchable between 1.0 and 2.0, the latter requiring PC drivers to accommodate 24-bit/192kHz media

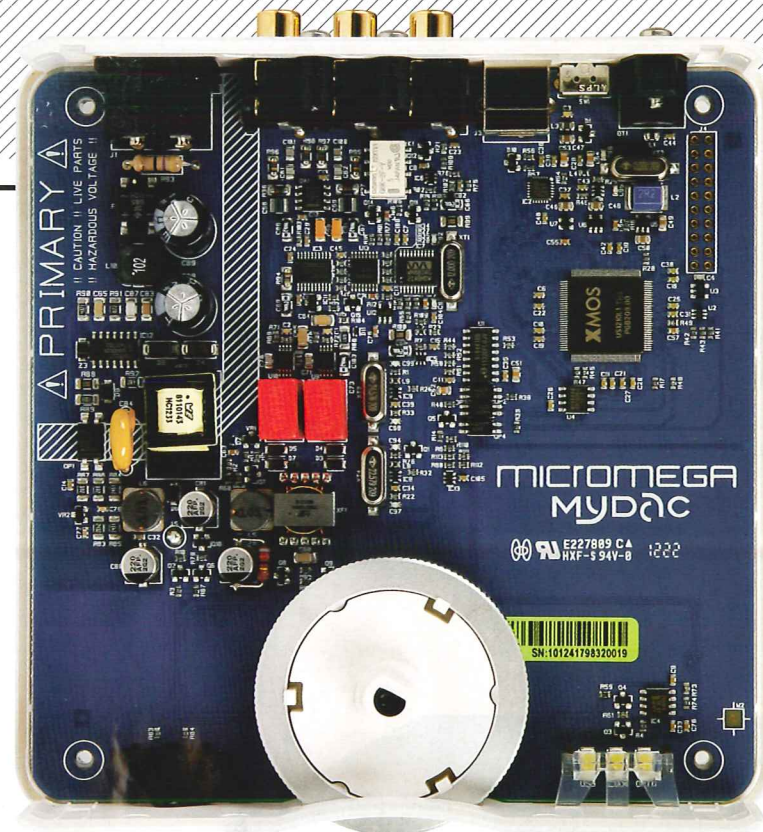


# LAB REPORT

## MICROMEGA MYDAC

What a cracking little DAC! Measured in USB 2.0 mode, the tried-and-tested XMOS chip solution delivers a near-identical performance to the Wolfson S/PDIF interface as both are channelled through a common CS4351 DAC-based analogue output stage. The maximum 2.07V output is consistent via USB and S/PDIF inputs as is the fine 106.7dB A-wtd S/N ratio and low 0.0008-0.0015% distortion from 20Hz-20kHz. THD falls to a minimum of 0.0002% at -10dBFS [see Graph 1, below]. The responses with 44.1kHz through to 192kHz media are also fixed by the DAC chip where Micromega has evidently elected for Crystal's 'slow' interpolation filter mode. The impulse response shows reduced pre-ringing traded for an increase in post-event ringing and reduced group delay – both laudible – though there's inevitably a slight increase in aliasing images (-78dB). Unlike other 'slow' filter options, however, the frequency responses are still very flat and extended: good to -0.08dB/20kHz with 44.1/48kHz inputs, -0.4dB/45kHz with 96kHz inputs and -1.7dB/90kHz with 192kHz media.

While the performance of these USB and S/PDIF inputs are broadly identical, the latter does enjoy slightly better low-level resolution ( $\pm 0.2$ dB over a 100dB range) while the former offers slightly lower levels of jitter, specifically 12psec vs. 54psec with 24-bit/48kHz inputs [see Graph 2]. This graph also reveals bursts of low-level interference patterns repeated every ~3kHz, but these are always at least 100dB below signal level. Readers are invited to view comprehensive QC Suite test reports detailing the Micromega MyDAC's S/PDIF and USB performance by navigating to [www.hifinews.co.uk](http://www.hifinews.co.uk) and clicking on the red 'download' button. PM



**ABOVE:** Industry-standard XMOS USB solution with 24-bit/192kHz DAC from Cirrus Logic – a textbook SMD layout

was fed signals from CDs via iTunes, stored material via iTunes, and high-res material through Fidelia.

Its sheer, unequivocal competence was evident from the first bars of Ron Sexsmith's *Forever Endeavour* [Cooking Vinyl COOKD577]. 'Nowhere To Go' opens with acoustic guitar, followed by plaintive French horn and rich bass. This is no deliberate audiophile recording, yet it had an airiness and cohesion that screamed 'pedigree'. When the violins enter, a silkiness is evident that I would never equate with what is (Quads aside) a cheap-o system such as would embarrass most self-respecting audiophiles. It was so free of nasties, and the voice exuded such warmth, that I thought I was imagining it.

### CHECKING THAT PRICE

My new litmus test is the heartbreakingly gorgeous version of 'God Only Knows', on Eleanor McEvoy's latest, *If You Leave...* [see p86]. If this track had been released in 1979 instead of 2013, it would have been worthy of a \$40 Sheffield Lab LP and you'd be queuing up to buy it. It is so scarily real, tactile and alluring that it yielded even through a pair of budget speakers a sound that defined high-end performance.

Detail, texture, ambience – all as they should be, reduced only in absolute scale (the Pioneers, after all, are not Wilson Sophias). But I needed some bombast. And Glen Campbell's epic reading of Conway

Twitty's 'It's Only Make Believe' from *The Classic Glen Campbell* [EMI 0946 3 68338 2 8] has the power.

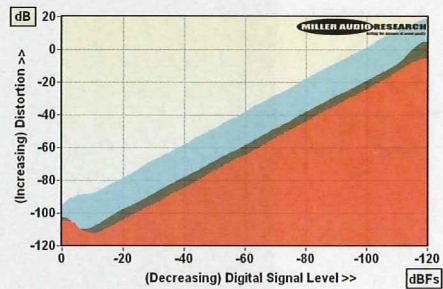
A massive production, sweeping strings, tough percussion, massed backing vocals, key changes that ascend relentlessly – it builds and builds until you think there cannot be any more to give. The MyDAC grew with the song, retaining all the dynamic punch and respecting that voice with such grace that I had to check with the importer: is it *really* just £259?

Yes, I can forgive the plastic case and the Gallic origins, because, boy, does this sing. And with far less jitter than Piaf. ☺

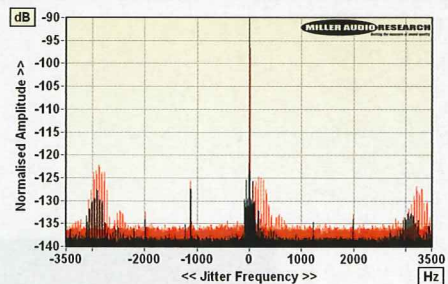
### HI-FI NEWS VERDICT

Much as I love my 'first gen' HRT MusicStreamer+, the MyDAC now has a permanent place on my desk – and not just because it fits neatly on the iMac's pedestal. The sound is so non-fatiguing that I have found myself listening to it in four-hour stretches with no desire to take a break. It lacks some of the refinement of dearer DACs, so do not cancel your order for an ARC REF or dCS Vivaldi. But if you only have £259 – wow!

Sound Quality: 86%



**ABOVE:** Distortion vs. 24-bit/48kHz digital signal level over a 120dB dynamic range. S/PDIF input (1kHz, red) and USB input (1kHz, black; 20kHz, blue)



**ABOVE:** High resolution jitter spectrum from 24-bit/48kHz data over S/PDIF (black) and USB (red)

### HI-FI NEWS SPECIFICATIONS

Maximum output level	2.07Vrms at 530ohm
A-wtd S/N ratio (S/PDIF / USB)	106.7dB / 106.7dB
Distortion (1kHz, 0dBFS/-30dBFS)	0.00077% / 0.00045%
Dist. & Noise (20kHz, 0dBFS/-30dBFS)	0.0015% / 0.0050%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to -0.08dB/-0.4dB/-1.7dB
Digital jitter (48kHz/96kHz/USB)	54psec / 50psec / 12psec
Resolution @ -100dB (S/PDIF / USB)	$\pm 0.2$ dB / $\pm 0.6$ dB
Power consumption	2W (<1W standby)
Dimensions (WHD)	140x35x140mm