



# Minimum maximum

Audiolab's most compact M-DAC yet is beautifully formed, **Ed Selley** checks out this ultra-flexible desktop model

Since the introduction of the M-DAC back in 2011, its descendants have had praise heaped upon them from 2016's range-topping M-DAC+ (HFC 410) to the M-ONE integrated amp/DAC (HFC 416). As the fourth addition to the M-DAC family, the Mini is built around the ubiquitous ESS Sabre DAC – in this case the ES9018K2M, which grants it decoding abilities in keeping with what we've come to expect from a DAC in 2017. The USB connection supports PCM up to 384kHz and DSD256, while the supporting digital input connections are capable of handling signals up to 24-bit/192kHz.

Additional connections take the form of a single coaxial and Toslink input as well as aptX Bluetooth for wireless connectivity, which makes this among the more flexible options at the price

(see How It Compares). One interesting addition is a USB-A port that allows the Mini to charge a portable device that you might happen to be using as your music source. More unusually, you get a digital coaxial and optical output, too.

The M-DAC Mini can operate both as a DAC/preamp and a headphone amplifier. On the front, there's a 6.35mm headphone output and a small volume control – which works in the analogue domain via an ALPS pot and is unusual for a product of this nature – plus a selector button that cycles through each of the inputs. Around the back, there is an RCA connection for integrating it into a system, although the volume control can't be switched out of circuit.

I have some reservations about the Mini's portability. The internal battery claims seven hours of use and my time

## DETAILS

**PRODUCT**  
Audiolab M-DAC Mini  
**ORIGIN**  
UK/China  
**TYPE**  
Headphone preamp/DAC  
**WEIGHT**  
400g  
**DIMENSIONS**  
(WxHxD)  
136 x 34 x 178mm  
**FEATURES**  
● 32-bit/384kHz and 24-bit/192kHz capable DAC  
● Digital inputs: micro USB-B; USB-A; optical; coaxial; Bluetooth  
● Outputs: 6.35mm headphone jack; line-level RCA; optical; coaxial  
● Quoted battery life: 7 hours  
**DISTRIBUTOR**  
IAG UK  
**TELEPHONE**  
01480 452561  
**WEBSITE**  
audiolab.co.uk

confirms this is attainable. The catch is that it just isn't that mini. Compared with devices like Chord Electronics' Mojo and Oppo's HA-2SE (both in HFC 423), that do without digital outputs or RCA connections, it feels somewhat hulking and is far from pocket sized. It's perhaps better suited to being carried around in a bag rather than with a portable music player.

## Sound quality

Initially connected up to a Naim Supernait 2 and Neat's Momentum 4i speaker and taking a USB feed from a Melco N1A (HFC 394), the Audiolab displays many of the qualities that have been present in other M-DAC models. The way it handles the 24/88.2 download of Lynyrd Skynyrd's *Second Helping* is a fine balance of force and delicacy. The superb guitar work in *I Need You* is captured with weight and emotion and there is enough space around the performers to make them easy to distinguish from one another. This doesn't affect its ability to deliver the intimacy of the track, where it is also very impressive.

With the more potent outpourings of the 24/96 download of Underworld's *Barbara Barbara, We Face A Shining Future*, the Mini continues to impress. The bass response is extremely good with plenty of detail and definition to the low notes of *Ova Nova* as well as the necessary low-end heft. There is a slightly matter of fact nature to the way it makes music, but this doesn't



A fabulously versatile device, but is the Mini really portable?

get in the way of engaging material being just that.

Switching the output to the AV bypass of the Naim and allowing it to run as a preamp shows it to be no less capable. The analogue volume control has a very linear gain, and while the control itself is a little on the small side, it allows for good levels of fine adjustment. If you wanted to use the Audiolab as a DAC in a fixed system, with or without the volume control, it puts in a good account of itself.

To do this would be to miss out on the star aspect of the M-DAC Mini,

## Seriously capable when used as either a line-level device or headphone amp

though. This is a very talented headphone amplifier indeed and one that has some very admirable technical qualities. With both the Audeze iSINE 10 in-ear headphone (HFC 423) and Bowers & Wilkins P9 Signature headphone (HFC 421), the background noise at idle – even at higher volume levels – is negligible to the point of non-existence. There is more than enough power to drive the substantial P9 to very high levels indeed without any sign of evident strain and this gives the 16/44.1 Tidal stream of Public Service Broadcasting's *The Pit* a truly huge sense of scale and power that doesn't overshadow the

use of real instruments woven into the massive swells of electronic sounds. Sending the same track via Bluetooth demonstrates the wireless implementation is very good too, with no sign of dropouts or unwelcome noise.

No less noteworthy is the sense of space and three dimensionality that is present in everything that you play through it. The P9 is a naturally spacious headphone, but the Audiolab manages to open out the presentation still further and go a long way to nullifying the sensation of listening in a constrained environment. This is also largely unaffected by the listening level you choose, which again benefits from the extremely linear control.

The performance with in-ear headphones is, if anything, even more impressive. The Audeze iSINE is a demanding partner for sources – it requires a surprising amount of power for an earphone and the superb detail retrieval will show up limitations in the signal it is being sent. Combined with the Mini's spacious and refined performance, it delivers a superb rendition of Daft Punk's *Adagio For TRON*. There is plenty of separation among the mass strings and it is easy to discern individual instruments in the brass section where all too often you'll simply hear a dense mass of instrumentation.

Once again, the excellent performance at lower volumes is a



The Audiolab gets fairly close to the performance of Chord's Mojo (HFC 423) which is pretty impressive given it costs £100 less. As a line-level DAC, it offers the same physical input connectivity (and has a full-sized coaxial connection as well) as the Chord and adds aptX Bluetooth and benefits from a full-size pair of RCA connections instead of the Mojo's 3.5mm socket. The volume dial is easier to use as well.

As a headphone amp, Mojo eclipses the M-DAC Mini. There is a sense of 'being there' that almost nothing else near the price can challenge. It is also much easier to carry around than the Audiolab Mini.

great help to the overall perceived ability of the Mini as even the relatively insensitive Audeze needs little more than a quarter of the available power.

## Conclusion

There is no doubting the capabilities of the Audiolab. There is enough of the qualities that we've observed in the more expensive models to see this is still a very capable piece of hardware. It's seriously capable used as both a line-level device and even more so as a headphone amp, and it is entirely competitive with rivals at the price. The only problem is if you are looking for a truly portable DAC, it is just too bulky. If, however, you require a desktop device that can be easily moved from place to place, the M-DAC Mini is a product that definitely warrants an audition ●

## Hi-Fi Choice

### OUR VERDICT

**SOUND QUALITY** ★★★★★ **LIKE:** Detailed, refined and involving sound; comprehensive spec  
**VALUE FOR MONEY** ★★★★★ **DISLIKE:** Not really that portable; slightly lightweight build  
**BUILD QUALITY** ★★★★★ **WE SAY:** A bit chunky to be truly portable, but a very capable DAC and headphone amp nevertheless  
**FEATURES** ★★★★★

### OVERALL

