

Mobile Mini

A tiny audio convertor that's simple and sounds good. Noel Keywood listens.

Pro-Ject DAC Box E mobile is a tiny external digital audio convertor for mobile 'phones and laptops, powered from them through its USB cable.

That means there's no power supply; it runs from the 'phone or computer batteries. Put this little lot together and you get a small box 70mm long, 30mm wide and 14mm deep, with one digital input, one headphone output – and nothing else! No lights, no controls or buttons – zilch.

With a low weight of 44gms on our scales, due to the use of an alloy

case and micro-miniature surface-mount (SMD) components inside, the DAC Box E mobile is easily pocketable.

Simplicity continues with its instructions, that are minimal, and cables – also minimal. The digital input is a USB C connector – yes, yet another USB connector – and Pro-Ject supply just one USB C-to-microUSB cable suitable for an Android 'phone and not much else. For connection to a computer a USB C-to-USB A cable is needed, or conceivably a USB C-to-USB C but I did not try this.

Since USB A has one serial data pair and one 5V supply pair the connection scheme is simple enough, as expected, even though a C socket has been fitted, presumably for its reversible connector. The issue here is that for connection to a computer or iPhone extra cables are needed. I fished out a short USB C-to-USB A socket adaptor cable, mated it with a USB A-to-USB A cable and got DAC Box E mobile up and running with both PC (Windows 10) and Mac (Sierra) straight away.

With PC you are limited to 96kHz sample rate maximum by





Audio output is from a 3.5mm stereo headphone jack, giving a loud 1V maximum. This is below the 2V or so common from portable players.

Windows unless a Steinberg driver is installed. My Mac identified it as a 'Primary Play interface' working up to 192kHz sample rate at 32bit depth maximum (this info being what the chip reports back to the Mac when it is initially addressed). Booting up Audirvana Plus I had music and then test tones whistling through without problem.

However, when it came to my iPhone with its standard Mac Lightning-to-USB A charging/download cable plugged into the same USB C adaptor there was stony silence – this combo does not work. Instead you need a Lightning-to-USB camera adaptor that is £29 from Apple or £12 from the 'net. I bought one from the Regent Street Apple store with parallel lighting output and it cost £39 no less! I spotted a Lightning to USB C cable whilst there, bought it for trial – and it does not work either: you must have the camera adaptor; adding to cost unless you happen to already have one.

Although the DAC Box E mobile played up to 24/192kHz PCM from my Mac, measurement showed it has the same frequency response as CD – as the spec confirms. However, with hi-res you get lower distortion and slightly wider dynamic range than CD.

There's plenty of volume, if not that of mains powered DACs, volume being controlled by the player, not this device. It doesn't accept DSD packaged via DoP; any DSD player must be turned to output unfiddled-with PCM or you hear a lot of noise.

SOUND QUALITY

Connected to either my PC or Mac, what I liked immediately from DAC Box E mobile was its sweet tone. Where digital is not known for any intrinsic sense of 'niceness',

unlike analogue, both CD rips and high-resolution files played by Audirvana Plus were free from the slight greyness and hardness of digital from budget converters. The Henry Mancini orchestra playing Pink Panther Theme (CD, uncompressed) sounded tidily composed and squeaky clean, fine taps against cymbals being obvious, whilst the brass sounded fruity and powerful, with plenty of heft on big-band climaxes.

Choir stretched out wide behind Mercedes Sosa singing Misa Criola (CD), acoustic guitar and flute floating nicely in space, with plenty of fleshed out body and solid power behind the slow drum strikes.

Connected to my iPhone, 24/48 hi-res files from an Onkyo HF player app were similarly crisp and clear, with plenty of body. Christine McVie's vocals were sweetly clear centre stage with Dreams, Mick Fleetwood's drum kit solid and well defined behind. Again, a lovely listen,

composed and easy, yet crisp too.

Korsakov's Dance of the Snow Maidens was laid out on a wide sound stage and sounded vivacious and dynamic, sudden orchestral interjections having thrust.

CONCLUSION

Pro-Ject's DAC Box E mobile is a simple, lightweight and portable DAC for mobile 'phones and computers. Technically it performs well and sounds good, but lack of connecting cables makes it challenge to get running. Hi-res quality was good but not top class.

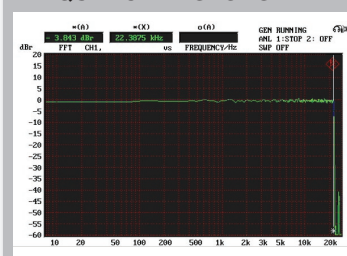


A USB C digital input socket – not more common microUSB – demands compatible cables that do not come supplied.

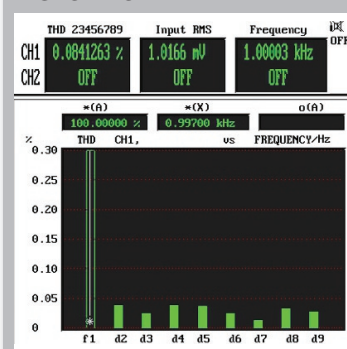
MEASURED PERFORMANCE

Frequency response of Pro-Ject DAC Box E mobile reached 22.4kHz (-1dB) at all sample rates up to 192kHz from a

FREQUENCY RESPONSE



DISTORTION



Mac. With PC the sample rate limit is that imposed by Windows (96kHz) and with iOS 48kHz, imposed by iOS, but frequency response remained the same.

Distortion at peak output (0dB FS) measured 0.002% and at -60dB with 24bit a good 0.08%, usefully better than CD (0.22%) if not up to the 0.02% figure possible with 24bit at -60dB. With reasonably low noise too EIAJ Dynamic Range measured a decent 104dB, just above CD – if again not up to full hi-res standards where better than 110dB is possible.

Pro-Ject's DAC Box E mobile turned in a tidy set of figures considering its modest ambitions, adequate to tease out some of the potential of hi-res files. **NK**

Frequency response (24/192)

	4Hz-22.4kHz
Distortion (-60dB)	0.08%
Separation	92dB
Dynamic range	104dB
Noise	-102B
Output	1V

PRO-JECT DAC BOX E MOBILE
£85.00

EXCELLENT - extremely capable.

VALUE - keenly priced.

VERDICT

Small, light and fine sound – but awkward to connect.

FOR

- small and light
- simple
- good sound

AGAINST

- limited hi-res quality
- lack of connection cables
- brief instructions

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