



## CENTRANCE DAC MINI £720

**F**ounded in 2000, CEntrance develops, licenses and distributes audio products and has worked with industry names such as Waves, Benchmark, Lavry and Mackie. They also design chips for Analog Devices and Texas Instruments as well as many others. The DAC Mini is unusual for featuring a headphone output with volume control, and line level analogue inputs which allow it to be the hub of a combined digital and analogue system, although the volume control is only active for the headphones.

The aluminium casework can be specified with a black anodised scratch resistant finish, but in standard form is intended to be a match with that on the current range of Mac Minis. The dimensions are identical at 164mm width and depth and 42mm high, making for an aesthetically pleasing combination. Although obviously designed with Macs in mind it is compatible with Windows operating systems as well as all major game consoles via the USB input. There are also coaxial and optical S/PDIF connections but no balanced inputs or outputs.

### SOUND QUALITY

Sonically it proved to be a real ear opener, providing the first really three dimensional soundstage of this group, along with a full bodied sound that was agile and well defined, letting me enjoy the detail in the strumming of the harp in the Bizet piece, or the flutes complementing the sound of Domingo's voice. With the

Monterey recording, for the first time I was aware of the outdoor ambience surrounding the sitar and tabla, both of which seemed to interact with each other with greater accuracy. The speed and attack of the teental rhythm had an urgency that only the Arcam had come close to displaying, and it was the first of these DACs to disentangle the slightly phasey effect of the audiences rapturous response at the end of the concert.

Treble definition also benefitted the Poppcocks CD, taking the splash out of the cymbals, and vocals finally acquired a truthful timbral balance. Even dodgy You Tube transfers of 1960s videotapes were played in a palatable manner, and it sang with high quality .wav files. As such I am truly impressed with this machine – although nearly twice the price of the other DACs tested so far, the performance alone the extra cost really worthwhile.

### MEASURED PERFORMANCE

Frequency response measured ruler-flat from 5Hz to 20kHz our analysis shows, but there is actually a slight increase in high frequency output over a wide band so the DAC Mini may well have quite a sheen to its sound or sound a little hard in its treble.

Distortion levels were low, much like the other DACs. With a 16bit digital input distortion at -60dB measured 0.187%, much the same result as the other DACs, but a good low value all the same. Linearity over the dynamic range was good, so even a dithered (1LSB, Gaussian dither) signal at a low -80dB managed a reasonable 2.4%. With a 24bit input the DAC Mini produced a low 0.04% at -60dB, similar to other DACs if not up with the best which can manage 0.015%. Output was a normal 2V and EIAJ Dynamic Range a healthy 100dB.

The preamp has no gain, simply passing a signal through from phono inputs to outputs, but the signal path is active as it overloads at 10V output. This is acceptable though. The volume control does not work here either, only affecting headphones.

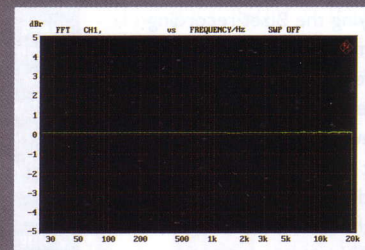
DAC Mini produces a fine set of results, but it may well have a brighter balance than others. NK

Frequency response (-1dB)  
CD 2Hz - 20kHz

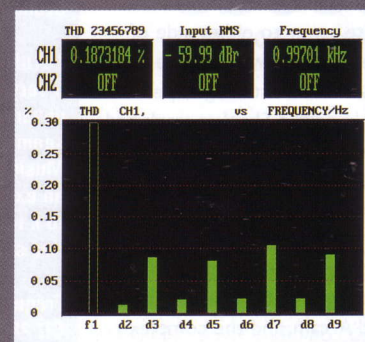
Distortion	%
0dB	0.0005
-6dB	0.0006
-60dB	0.19
-80dB	4.6

Separation (1kHz)	118dB
Noise (IEC A)	-111dB
Dynamic range	100dB
Output	2.0V

### FREQUENCY RESPONSE



### DISTORTION



### VERDICT

Well specified DAC/headphone amplifier with a super, three dimensional sound.

### CENTRANCE DAC MINI £720

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### FOR

- refined tonality
- expansive soundstage
- rhythmically engaging

### AGAINST

- nothing