

DACS  
CAMBRIDGE AUDIO DACMAGIC

# Simply better audio

Outboard Digital to Analogue converters aren't new. They were all the rage a while ago and then slowly receded into the darker, dare I say, more esoteric realms of the toffee-nosed, high end of the audio world inhabited by people who didn't own a CD player.

These people owned a precision CD drive mechanism that was allied to – via some super expensive cables – an outboard D to A converter that had been designed to reject all interference from the sun's rays to mother-in-law's nagging, and deliver audio that was almost as analogue sounding as vinyl (Have I upset any DAC-owning Audiophiles yet? If not I'll try a little harder next time.).

Recently, new DACs have started appearing, and these have been designed to help all of us get more out of the music we have stored on computers, media servers, and yes – even from good, old fashioned CD.

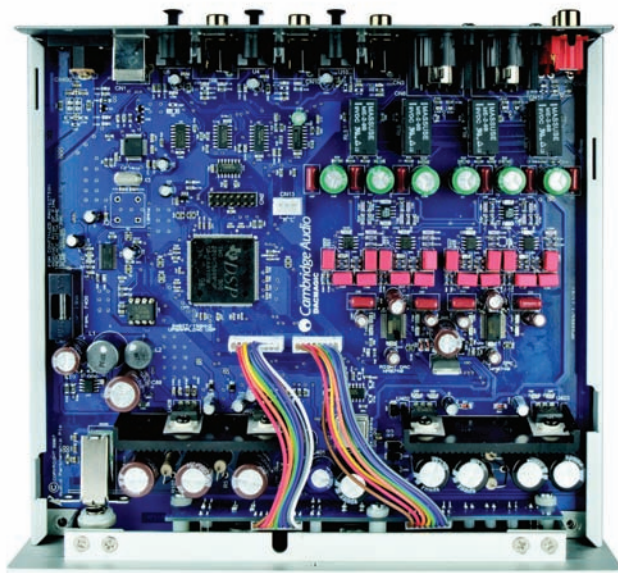
One of these new generation of DACs that's sure to set the pace is the DacMagic from Cambridge Audio, and as it's from Cambridge, it packs a whole lot of upmarket features into a neat package that doesn't cost too much – relatively speaking.

For just a little under the six thousand Rand mark, you get a DAC that has all the inputs and outputs listed in the Vital Stats panel. The balanced out will please those that own an amplifier with a matching input, and the USB input means that the DacMagic can be connected to a USB port on most devices that have these ports.

As nice as these are, they wouldn't be worth a damn if the internals of the DacMagic weren't up to scratch. And up to scratch they certainly are, as in the box are packed a 32-bit Texas Instruments Digital Signal Processor that is claimed to eradicate jitter, dual Differential Virtual Earth balanced filter topology and twin Wolfson WM8740 high quality DACs in dual differential mode.

You also get Adaptive Time Filtering (ATF) upsampling technology that was first seen in the Cambridge 840C CD player. ATF was developed in conjunction with Anagram Technologies of Switzerland, and in the DacMagic it converts 16/24-bit audio data to 24-bit/192 kHz.





On top of all of this you get a choice of digital filters – linear phase/minimum phase/steep filter – an incoming sampling rate indicator which shows the original source bit rate, a nice and big external power supply, and even a rubber foot that allows the DacMagic to be placed vertically next to a computer screen.

Hooking up the DacMagic is easy, as all you need to do is give it power, plug in digital inputs (optical, coaxial, but not both), and connect it to your computer via USB. Most PCs will automatically detect the DacMagic and it essentially takes over from your soundcard. Naturally you also have to connect the DAC to your amp.

I started the review process by listening to a few tracks saved on my laptop as WAV files, and using its analogue output directly into an amplifier. Next I connected the USB cable, waited until Windows had detected the DAC and then

listened to the same pieces of music again.

The first thing I noted was that there was a lower noise floor, and this meant that subtle detail was more apparent, there was certainly more focus to music, and there was better pace too, as bass tightened up. I'm not saying that the DacMagic totally trounced the analogue outputs, but the sound from it was certainly more enjoyable.

Next I found some MP3s and performed the same ritual as above, and here the differences between PC and DAC were a little more marked. A case of the ATF filling in some of what was lost in the ripping process perhaps.

In a comparison between the sound of my 840C and the DAC I felt that there was very little difference between the two, but if I was forced to choose I would probably have opted for the more familiar 840C.

## VITAL STATS

**Digital conversion**....Supports 32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, and 16/24-bit

**Frequency response** .....20 Hz – 20 KHz (±0.1 dB)

**Signal-to-noise ratio** .....-112 dB

**Outputs** .....1 pair RCA, 1 pair XLR balanced, 1 coaxial digital, 1 optical digital

**Inputs** .....2 x digital inputs (optical or coaxial), USB PC digital input

**PRICE**.....R5 990

### VERDICT

As advertised, the DacMagic breathes new life into old CD players, and adds an extra dimension to PC based music. Wide array of inputs and outputs adds to appeal, with options such as hooking it up to a games console to play guitar hero, or connecting it to a wireless media client such as a squeezebox or sound-bridge.

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I also tried the various filters and ended up using Linear as my default setting.

So, the DacMagic has a lot going for it and it probably delivers better audio than a similarly priced CD or DVD player. Its USB input also means that it will transform media servers, and this is probably its strongest selling point.

**Joel Kopping**

