AUDIO FILE

Network media player/USB DAC
Made by: Cambridge Audio Ltd
Supplied by: Cambridge Audio Ltd, London
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Cambridge Stream Magic 6 (£700)

hi-fi news HIGHLY COMMENDED

Cambridge has released two new DACs this year: the £200 DacMagic 100 and £350 DacMagic Plus. This brand new Stream Magic 6 combines a network player with the audiophile features of the DacMagic Plus – so under its bonnet are twin Wolfson WM8740 DACs implemented in dual differential configuration and Anagram Technologies' AFT2 24-bit/384kHz up-sampling (with a choice of three filter settings) using an Analog Devices 32-bit DSP. Cambridge supplies USB Audio Class 2.0 drivers to afford its asynchronous USB input 24-bit/192kHz capability.

Wi-Fi is built in, while Bluetooth connectivity is also possible via Cambridge's optional BT100 USB adaptor (£70) for which an A-type USB socket is provided at the rear. There's an additional A-type USB input socket on the fascia for playback of 'local media' – FAT32 formatted flash drives and the like – but it does not support digital connection/control of iDevices.

Cambridge Audio does however have an excellent App for iOS, and Android, which provides cover artwork. Analogue outputs can be fixed or variable, allowing the unit to operate as a digital-source-only preamp. Cambridge's Stream Magic web portal allows management of internet radio stations and streaming services, *eg*, BBC iPlayer Radio, Pandora, Rhapsody, *etc*.

STELLAR VIA USB

Via its asynchronous 24-bit/192kHz USB input the Stream Magic 6 sounded astonishingly good for its price, performing as well as many high-end DACs. Perhaps this is no great surprise given the uncommonly fine performance of Cambridge's companion DacMagic Plus converter.

With Robert Plant's 24-bit/96kHz 'Trampled Rose' it was explicitly focused and 'clean' sounding, with sharp leading edges to transients and fabulous detail retrieval. As was the recurring theme of these group listening tests, it sounded noticeably softer and slightly blurred when streaming via Ethernet.

In this guise, and unlike Pioneer's N-50, the Stream Magic 6 stutters every 10 seconds or so at 192kHz and only plays 176.4kHz content in 'slow motion'. Via a wired network, 24-bit/96kHz is its absolute limit with WAV and FLAC media files.

Revealing the pedigree of its excellent-sounding D-to-A conversion, it served up a very fine rendition of Tori Amos' 'Cornflake Girl' at CD resolution. The image of the piano was vivid and stable, the resonance of the instrument appearing uncannily lifelike in the audio picture. It was good when streaming, but stellar when audio was pushed into its USB input – the 'dirtying' of the networked sound is best described as a smearing of the glass window through which we were viewing the musical event.

Sound Quality: 80%

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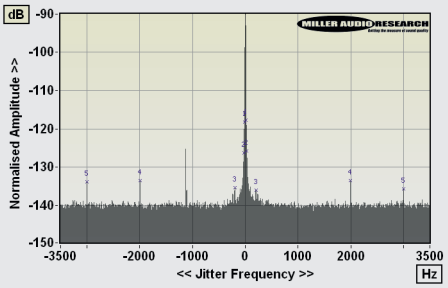
ABOVE: The display is plain-looking, but its clarity excellent. Front panel buttons control both set-up and media playback

ABOVE: Both optical and coaxial sockets are provided for digital inputs and outputs. Balanced analogue outputs (XLR) are a major bonus given the modest asking price

HI-FI NEWS LAB REPORT

Broadly speaking, the performance of the Stream Magic 6 is governed by its DacMagic Plus-based output stage, the 24-bit/96kHz limitation of its network receiver notwithstanding. A healthy 4.1V is available from the balanced (XLR) outputs through a low 46ohm source impedance while the overall A-wtd S/N ratio is pushed out to a wide 112dB, which is all the better for true 24-bit content. Distortion, too, is suppressed to <0.0007% over the top 30dB of its dynamic range through bass and midrange, increasing to 0.002% at 20kHz and 0.003% at 40kHz with 96kHz media.

The response(s) are flat to –0.2dB/20kHz and –2.2dB/45kHz with 48kHz/96kHz media, respectively, and stereo separation is >100dB from 20Hz-20kHz but it's the low 30ppm clock error and excellent suppression of digital jitter that marks out the Stream Magic 6. At 75psec with 48kHz data [see Graph, below] and just 15psec with 96kHz data – both delivered over a wired network – this represents a state-of-the-art performance for a sub-£1000 DAC, let alone a network media player. **PM**



ABOVE: High resolution jitter spectrum with 24-bit/48kHz data delivered over a wired network connection

Maximum output level/Impedance	4.14Vrms / 46ohm (balanced)
A-wtd S/N ratio	111.9dB
Distortion (1kHz, 0dBFs/–30dBFs)	0.00040% / 0.0007%
Distortion (20kHz, 0dBFs/–30dBFs)	0.0020% / 0.0035%
Freq. response (20Hz-20kHz/45kHz)	+0.01dB to –0.23dB / –2.17dB
Digital jitter (48kHz/96kHz)	75psec / 15psec
Resolution @ –100dB	+0.5dB
Power consumption	12W
Dimensions (WHD)	430x85x305mm