

Cambridge Audio DacMagic XS USB DAC/Headphone Amplifier



The growing popularity of headphones and computer audio playback has led to the inevitable introduction of portable USB DACs that add a headphone amplifier, which makes it very simple to get high-quality sound from your computer. Cambridge Audio has entered this market segment with its DacMagic XS. The DacMagic XS is quite demure in size, with a black

brushed-aluminum body measuring 1.2 by 0.4 by 2.1 inches and weighing in at a mere 3.5 ounces. It has a micro USB port on one and a 3.5mm analog output on the other. The only controls on the DacMagic XS are a pair of volume control buttons. A multi-colored LED light next to the output jack signals the sampling rate (blue for 44.1/48 kHz, green for 88.2/96 kHz, and purple for 176.4/192 kHz), as well as when maximum volume or mute are selected. The price is a competitive €149.

A feature that I especially like about the DacMagic XS is that it connects to the computer via a short (included) cable, rather than sticking out of the side like a thumb drive. This makes the DAC (and my computer's USB port) a lot less likely to get damaged by an inadvertent bump. The DacMagic XS can utilize either USB 1.0 or 2.0 protocols; switching between the two is accomplished by holding both volume buttons for a few seconds. USB 1.0 is limited to 24-bit/96-kHz audio files, while 2.0 supports 24/192. I used Amarra running on a MacBook Air for playback and kept the DacMagic XS set to USB 2.0. (Windows users will need a driver from Cambridge Audio to access the USB 2.0 mode.)

The DAC is asynchronous, which helps eliminate jitter being transmitted by the computer. For our technophile readers, the DAC chipset itself is the Sabre ESS 9023 DAC. I personally am not familiar with this particular model by Sabre, but have used several other DACs built around other Sabre chipsets with excellent results. Besides the digital-to-analog conversion, the other function of the DacMagic XS is providing amplification to headphones. The headphone amplifier inside the



HTR Product Rating



DacMagic XS is capable of putting out 150 mW of power into a minimum impedance of 12 ohms.

The DacMagic XS provided a greatly improved listening experience, compared to plugging headphones directly into my MacBook. I did my listening through a variety of headphones, including the Westone Adventure, Monster Turbine Pro Copper, V-Moda Crossfade M-100, and SOL Tracks. The DacMagic XS was able to drive any of these headphones without a problem. The amplification supplied by the DacMagic XS provided significantly better dynamics and bass response than my computer alone was able to provide. It was only in comparison with a desktop headphone amplifier, such as a Grado or HeadRoom amplifier, that I could hear that





there was even more dynamic range to be had. In comparison with the MacBook's onboard headphone capabilities and those of the Grado RA1 amplifier, the DacMagic XS was much closer in performance to the Grado. The Grado is able to drive the headphones with even more control and greater dynamics, but the DacMagic XS gets you most of the way there.

The amplification section of the DacMagic XS does more than just provide more power for dynamic musical passages; it reproduces detailed musical passages with much more detail and clarity and with less background noise than the MacBook's output. Some credit for this increased performance must go to the DAC circuit, as the amplifier can only work with the signal it is fed. Not being able to take a digital signal out of the DacMagic XS, it is difficult to ascertain what part of the improved performance is due to the amplification, as opposed to the DAC. That said, the ability to accept high-resolution digital files asynchronously greatly increases the detail that can be provided to the listener. In the end, it does not really matter if it is the DAC or the headphone amplifier section of the DacMagic XS, as they work together to offer great performance.

High Points

The DacMagic XS provides plenty of power to drive all but the most demanding of headphones to more than reasonable volume levels. It has the ability to handle audio files of all resolutions up to 24/192.



The sound quality of the DacMagic XS is clearly superior to that of my MacBook's built-in headphone jack.

Low Points

I cannot really think of anything I did not like about the DacMagic XS. At times, I wished it had a bit more power or detail, but it was always noticeably better than the output it was replacing.

Competition and Comparison

The Audioquest Dragonfly (\$249) and HRT Microstreamer (\$189) are two well-respected competing products, but these are limited to 24-bit/96-kHz audio files. The Meridian Explorer (\$299) can accept files up to 24/192 and has the benefit of having a digital output, which will allow it to also act as an interface between your computer and a non-USB DAC.

Conclusion

The Cambridge Audio DacMagic XS allowed me to enjoy really great computer audio through my headphones. It's a small, affordable device that virtually anyone will find to be easy to use, and it can drive all but the most demanding of headphones. If you're ready to take your computer audio experience to the next level, you have to check out the DacMagic XS.