

Xciter DAC White Papers

Today's audio playback trends are moving toward the computer and various music server systems. Be it a desktop, a laptop or a networked server, much of today's audio is streaming from the computer and enjoyed through everything from a great desktop system to a higher quality home system using the best separate components. In response to today's expanding playback choices, we have introduced an entirely new product line targeted to these rapidly expanding uses, the Xciter Series.

The key to digital audio quality is the way in which the digital signal is converted back to analog before it is played through speakers. Even the highest quality digital recording can sound lifeless, unrealistic and one dimensional if played on a computer or CD player with a low quality digital-to-analog converter (DAC). On the other hand, a recording that was not recorded to the highest of standards can be played back through a digital-to-analog converter of high quality and come out sounding much better than anticipated. This improvement is a direct result of how the files are handled and the quality of the conversion.

With the Cary Audio Design Xciter DAC, your CDs and digital audio files will sound better than you would have ever thought possible. Using the new AKM 32 bit digital-to-analog converter chip, each digital audio signal input to the Xciter DAC is accepted by the receiver chip, then immediately upconverted to 32 bit / 192 kHz. This is the highest bit depth and sampling rate available from any stand-alone digital-to-analog converter within thousands of dollars of the affordable price of the Xciter DAC.

This process provides audio files that have greater depth and detail than anything you have previously heard. As an example, CDs are recorded at 16 bit/ 44.1 kHz and when played using an Xciter DAC are converted directly to 32 bit/ 192 kHz then passed to the AKM DAC chip to be converted back to the original analog wave form. The resolution is uncanny and the difference will be immediately noticeable.

The playback of digital files from your computer including MP3s is one place where the Xciter DAC truly shines. As you may know, MP3 files are saved in a lossy format which is noticeably lower quality than standard CD audio.

In order to facilitate speedy audio downloads these files are compressed to make them smaller, sacrificing part of the actual audio file and causing the quality of the audio to suffer greatly. While you cannot put elements back into an audio file that were taken away during compression, you can work with what is available to make it sound as good as possible. When sending a digital audio file to the Xciter DAC over USB, the signal bypasses the receiver chip removing one more step from the audio path, thus cleaning up the signal flow that much more.

Why is this preferable and sonically superior? The USB output from the PC has noise. When the signal is input over USB into the DAC, it bypasses the receiver chip and is sent directly to the CM-108 device. The digital stream is stripped as the device separates the clock and data signals. It then re-clocks the digital stream which basically means it has reduced any jitter and/or noise to extremely low levels. The re-clocked stream is then directed to the main AKM processor chip where it is up converted to 32 bit / 192kHz and then outputted to the analog jacks on the rear panel of the DAC.

What the Xciter DAC does to MP3 files is similar to what the CD did for the music industry in the 80's. It takes your favorite music and audio and transforms them into the highest quality reproductions possible.

What about Apple Lossless or other uncompressed files or the new higher resolution formats some firms are selling on the internet? The Xciter DAC is able to bring significant improvement to these formats as well. The benefits derived from up conversion and re-clocking are even more pronounced with high resolution files than they are with lower quality MP3s. Greater depth and detail are immediately apparent and the overall sound quality is just amazing.

Cary Audio Design has a long history of producing award- winning CD products such as the CD-303 and the CD 306 which have excellent DACs. The superior characteristics of the components and the design excellence on which Cary has built its reputation for 20 years are demonstrated in the Xciter DAC. You can see, feel, and hear the excellent materials and workmanship used to create this product compared to anything else you may have experienced.

The combination of high quality digital-to-analog conversion coupled with the superior analog output section of the Xciter DAC make for one of the most exciting and impressive musical performances available from a digital device today. Come relearn how your music is supposed to sound with the Cary Audio Design Xciter DAC.