The Rega Dac

A New $1,000 Benchmark

By Jeff Dorgay

Analog audio is similar to analog photography in the sense that there haven't been many game-changing technological advances in the past 20 years. Most of the improvements have been the result of refining existing technology, upgrading materials and paying careful attention to the smallest details in assembly. The big, high-dollar turntables still spin a platter with a motor (often with a belt between the two) and that's about it. Granted, the world's best turntable manufacturers are masters at refining this process, and even in the year 2010, continue to produce better turntables. But in order to get $20,000 turntable performance, you still have to *spend* $20,000.

Digital audio is a completely different ballgame. Just like your favorite personal computer, much of processing a digital signal is about computing horsepower and is directly related to the chipset under the hood. There are a few manufacturers such as Wadia and dCS that take care of decoding and filtration in software, but for the most part, it's the DAC chips and whatever tweaks in the analog circuitry combined with the power supply that determine the sound.

As with high-dollar turntables, the world's best digital sound is still expensive because of the amount of parts and labor required. However, the $1,000 DAC category is improving by leaps and bounds – Rega's $995 DAC is a perfect example of this.

A Quick Overview

Like every other Rega product, the Rega DAC is simple, functional and offers high performance in its price category. Rega principal Roy Gandy is not a man to jump on the latest trend. True to his engineering background, he studies a product and builds it the way he thinks it should be done. Rega's website proudly mentions that they are "the last hifi manufacturer to produce a CD player," and it could very well be the last high-end company to produce a DAC as well. But it is a damn good one.

Rega uses a straightforward approach with no upsampling. Terry Bateman, Rega's digital designer, said, "I wanted to keep the signal path to a minimum. We didn't use upsampling with the Saturn or the ISIS, and I wanted to follow the same spirit of these units." Those users with a high-quality sound card can upsample there if they prefer. The Wolfson WM8805 and WM8742 chips running at the incoming sample rates do a great job on their own, along with a nice drop of "old school audio mojo." The Rega DAC also shares its buffer circuitry with the Rega CD players, which has been one of the aspects of their design that has been overbuilt from the beginning. Rega's CD players have a much larger buffering capacity than most, adding to the natural sound.

Around back, there is just a simple three-prong IEC socket due to a lack of space for a standard IEC. There is a high-quality power cord supplied, but an audiophile who wants an upgraded power cord can purchase an adaptor from Music Direct at:

www.musicdirect.com/product/73370

This will allow you to use the aftermarket cord of your choice, and should you desire keeping your DAC all Rega, the power cord that is standard issue on its flagship Isis CD player is available from Rega dealers for an additional $175. *(continued)*

Following the trend of a few other manufacturers, Rega has chosen to ignore a high-resolution USB input, sticking with 16/48 as the maximum data rate their DAC will process. Bateman mentions that when they first started development on the DAC about two years ago, their vision for it was as more of an audiophile component, and they felt that the computer user was looking more for convenience. With computer audio gaining a lot of ground recently, this may be a deal breaker for some. But before you freak out, how many high-res files *do* you have on your computer?

Another unique feature of the Rega DAC is the choice between five filter characteristics for each of the sample frequencies. Bateman mentioned that he considers the "standard" settings to be position No.1 for 32/44.1/48k sample rates and position No. 3 for the higher sample rates. For those wanting a highly in-depth explanation of the filter characteristics, click here to go to the Wolfson site:

http://www.wolfsonmicro.com/documents/uploads/misc/en/Ultra_High_Performance_DAC_whitepaper.pdf

Spectacular Sound

At turn on, the Rega DAC sounded a bit grainy and somewhat thin in the lower register, but after being powered for 48 hours, this deficit was gone. None of the Rega components I've used over the past 10 years have ever required an extended break-in time, and though this unit arrived with some hours on the clock, I don't suspect the DAC is any different than any of Rega's other hardware. After it's been on for two days, the Rega DAC really grabs you – in a good way.

I tried the Rega DAC with a number of digital sources. First, for the customer with an older CD player just looking for a better DAC, I took advantage of my stock Denon 3910. A Mac Mini running iTunes was thrown into the mix for the average computer listener's perspective, and on the high end, I ran a digital cable from the SPDIF output of the dCS Paganini PTT transport. A fair amount of music was played through the SPDIF output of the Sooloos Control 10 as well.

The Rega DAC really excels at tone and timbre. Acoustic instruments sound natural and quite honestly, way better than even a digital snob such as myself ever expected a $1,000 DAC to sound. The recent HD Tracks 24/96 download of Keith Jarrett's *The Koln Concert* revealed a healthy dose of texture and hall ambience, with plenty of Mr. Jarrett's signature groaning in the background. One of my favorite 24/96 warhorses is that 70s classic from Chicago, *Chicago V*. The cymbals at the beginning of "Hit by Varese" had a healthy decay. When switching back and forth between the 24/96 file ripped from DVD-A and the standard 16/44 file, it was instantly apparent that the high-res file had considerably more air between the notes.

Most of the 24/192 files on the Naim HDX music server have been digitized from LPs in my collection and a handful originated on the Rega P9/Shelter 501II combination through the Audio Research REF Phono 2. So it was interesting to compare playback at the DAC's highest resolution. Again, I was amazed at how much of the essence of what was essentially a $20k analog front end could be reproduced without serious compromise. The Rega DAC is an excellent choice for anyone thinking about archiving vinyl, provided you have an excellent-quality analog setup with which to capture it. *(continued)*

Playing high-resolution files is not limited to the RCA inputs, but according to Bateman, "24/192 is pushing the limit of the Toslink interface. A high-quality cable will be required." That in mind, I had no problem playing 24/96 files from my Power Book Pro, with a four-meter Monster optical cable. (About $50 at Radio Shack.)

Though the Rega DAC did an excellent job with high-resolution files and provides a compelling reason for downloading them, I still couldn't help thinking that this DAC was something special with standard 16/44 files, whether played from USB or SPDIF. If you are an audiophile who has merely ripped your CDs to a computer and doesn't see high-res files in your immediate future, the USB performance is very good at 16/44.

A Few Comparisons

With the internet boards abuzz about whether the Rega DAC "sounds better or worse" than the bloggers' existing CD players, I don't think it is really a fair comparison because the DAC offers the ability to play high-resolution files. I suspect that the CD player will appeal to one type of customer and the DAC will appeal more to the computer/music server audiophile. So comparing the two directly is a moot point.

On many levels, I found the sound of the Rega DAC more akin to that of its flagship turntable, the P9 (which has been a long-term component in my reference system). It shares the P9's quick and open presentation with a healthy dose of pace and timing. If this is the kind of sound that appeals to you, I think you will enjoy auditioning this DAC.

My theory on the rapid advancement of digital technology was confirmed when I compared the sound of the Rega DAC to my original Meridian 808, purchased about four years ago. When using the 808's digital SPDIF input, the difference between what was a $15,000 player four years ago was minimal. Of course, Meridian is up to the 808.3 now, but it is amazing to see this ramp up in performance for the dollar. I guarantee that there are *no* $1,000 turntables today that sound like a $15,000 turntable from four years ago.

Forget about the "bits is bits" theory; there are still plenty of ways to handle filtering, digital processing, power supply design and the output stage. DAC's are just like phono cartridges: each has its own unique sound. Where the Benchmark and Ayre DACs tend to be slightly on the analytical side of neutral and the Neko Audio DAC ($1,195, and *no* USB input) is slightly on the romantic side of neutral, the Rega is very close to dead center. Interestingly enough, the Rega is one of my favorite budget DACs, much like the Simaudio DAC300 that also forgoes a high-resolution USB port to maximize the audio performance on the SPDIF side.

In the end, digital can drive you just as crazy as analog if you let it. However, the Rega DACs strengths far outweigh the lack of a high-res USB input for most users.

Musical to the Core

While there are definitely some other DACs at this price point that offer more functionality, the Rega's strength is offering truly *great* sound from its SPDIF input, regardless of resolution. Personally, I'd still rather have outstanding 16/44 through the SPDIF input than multiple input options with mediocre performance. If this is your philosophy as well, I think the Rega DAC would find a very good home on your equipment rack.

And digital audio is much like the weather here in the Pacific Northwest; if you don't like it, it will change shortly. Though the digital game is one that is constantly improving, the Rega DAC is certainly a great place to hang your hat for now and just enjoy your music collection. ●

The Rega DAC
MSRP: $995

MANUFACTURER
www.rega.co.uk
www.soundorg.com (US)

PERIPHERALS

Digital Sources Denon 3910, Mac Mini, Naim HDX, Sooloos Control 10, dCS Paganini PTT

Preamplifier McIntosh C500

Power Amplifier McIntosh MC1.2KW's

Speakers B&W 805D with JL Audio Gotham

Cable AudioQuest Wild Blue Yonder, I/C and Speaker

Power Running Springs Dmitri and Maxim, RSA Mongoose and Shunyata Python CX power cords