

# CANADA HiFi Magazine

## Rega DAC Exclusive Review

*April 29th, 2011, In DACs (Digital to Analog Converters), Reviews, by Phil Gold*



Roy Gandy's Rega Research has a stellar record of producing fine source components, often combining high performance with innovative physical design at a relatively modest price point. Many readers will be familiar with the pioneering Rega Planar 2 and Planar 3 turntables from the 1970's (now supplanted by a whole range of turntables), the ubiquitous Rega tonearms and cartridges, and in the digital sphere, the Apollo, Saturn and Isis CD players. Now joining this army of source components, and building on technology from the current range of CD players, comes the smart looking new Rega DAC, priced at an affordable \$1095.

A DAC is pretty much a set-it-and-forget component, unless you are feeding it from multiple sources. There's no volume control, remote control, start/stop or any of that nonsense. It's usually a fairly small component and you don't need much by way of status panels. What you do need is a set of suitable inputs and outputs on the back panel, compatibility with the digital sources at your disposal, the ability to reject signal born jitter, a good mechanism for converting digital signals to analog and a good analog output section. There's lots of competition so you'll need to excel in some special way to make much of a dent in this market. Does the Rega DAC have what it takes?

The Rega DAC comes with three controls – one to select the active input and one to select the filter, plus the obligatory on/off switch. Generously Rega offers five digital inputs and five filter options. It will accept a signal fed through its isolated USB input (FLAC, WAV, ALAC), two Toslink SPDIF inputs or two 75 ohm Coaxial inputs. When the input is locked an LED indicator lights up, otherwise the output is muted. There are four LEDs to indicate the frequency of the digital input signal – 32 kHz, 44.1-48 kHz, 88.2-96 kHz and 176.4-192 kHz. Unbalanced RCA outputs are offered, but there are no balanced or headphone outputs. The filter selections depend on whether the signal is low frequency (up to 48 kHz) or high (88.2 kHz and up). The settings are shown in the table below.

Filter Setting	Low frequency input	High input
1	Linear phase half-band	Linear phase
soft-knee		
2	Minimum phase soft-knee	Minimum phase
soft-knee		
3	Minimum phase half-band	Linear phase
brickwall		
4	Linear phase apodising	Minimum
phase		apodising
5	Minimum phase apodising	Linear phase
apodising		

The observed differences between these options are quite small, and for most of my listening I preferred the apodising minimum phase setting, with linear phase soft-knee being a close second. These settings seemed to be a little more musically satisfying than the others. This is not an up-sampling DAC. It works at whatever frequency the input signal dictates, and the sound improves with higher input frequencies, as you would expect. Opinion is sharply divided on the issue of up-sampling – some believe it makes a significant difference, other say that cannot possibly be so. Rega is firmly in the no sample rate conversion camp, throughout its range of digital products.

This DAC does not offer an asynchronous input, a popular feature on many new DACs trickling down from higher-end DACs into the mid-price DAC sweet spot. Perhaps more significantly, the USB input is limited to 32, 44.1 or 48 kHz/16-bit, unlike the other four inputs that can take up to a full 192/24 signal. I am disappointed (not just with Rega but with the industry in general) that there is such a mishmash of connection standards for DAC inputs. I would prefer to see USB inputs matching the range of frequencies from the SPDIF inputs, and I'd like to see the option of BNC connectors and AES/EBU inputs so I could feed in digital signals from the NAIM and EMM Labs source components I have in my component rack. At this price I would also like to see balanced outputs.

So, some care is needed when you buy a DAC to make sure it will be plug compatible with the digital source you are planning to use to feed it. Rega has clearly made the choice here to limit the flexibility of its new DAC (extra flexibility would cost more) and to concentrate its efforts instead on getting the best sonic performance for the price. They have selected very fine components and designed very stiff power supplies to optimize performance. We're talking dual Wolfson DACs (WM8742), high speed rectifier diodes and high audio grade capacitors. The USB section, receiver, Phase Locked Loop and high performance clock each have their own power supplies, all fed by a heavy duty low noise toroidal transformer.

The power connector uses a C5 clover leaf (or Mickey Mouse) connector, so I was not able to try the Rega DAC with the various high-end power cords at my disposal. More and more components are switching to this connector which is considerably smaller than the standard power input. Completing the picture there is also a coax and optical digital output on the back panel. The DAC is available in two different colour schemes, black satin or silver satin, and both feature a glass panel over the front face. On my black pre-production sample it was tough reading the settings due to low contrast, and from the pictures I've seen, the silver unit is much more legible.

Let me jump ahead of myself and tell you that based purely on sonics, Rega's design team knows exactly what they're doing, and if this DAC has the specifications you need, you'll be very happy with the performance, as you would expect from Rega's excellent reputation. I was very hard pressed to differentiate the performance of this DAC fed by the excellent Meridian G08 CD player from the stellar analog output of the G08 itself. The G08.2, today's equivalent, retails for over \$5000 in Canada. Yes the Meridian does throw a bigger soundstage, has slightly more definition in the bass and detail in the treble and is more coherent when there are a lot of different things going on, but the Rega is close on all counts, as if the Meridian had been the reference Rega's designers set out to match. When listening to vocals it was a bit of a mixed bag. Sometimes the Rega pulled ahead, as it did with Joan Baez in Diamonds and Rust, where the Meridian sounded more etched and ultimately less realistic than the Rega. But the Meridian turned the tables on The Northwest Passage where Stan Rogers was less chesty and Garnet Rogers, David Alan Eadie and Chris Crilley were better located and differentiated in tone.

So if the Rega DAC is nipping on the Meridian's heels, where does that place it on an absolute level? Well, streets ahead of almost all comers in the sub \$3000 CD player market and also in comparison to other DACs in the \$750 to \$1200 range. It throws big images, away from the physical dimensions of the speakers, and it has a warm and yet very dynamic sound, with bold leading edges and delicate patterns of musical decay. Distortion is never a factor, while the level of detail is quite high. Above all it passes the smell test of being fully musical. No digititis here. It is only when you compare it with far more expensive components such as the Chord QBD76 DAC (\$6495 US) or the EMM Labs DAC2 (\$9500 US) that its limitations

become apparent. These devices reveal much greater depth in the soundstage, greater precision in locating voices and instruments, more accurate instrumental tone, subterranean bass and open treble, and effortless dynamics. When you put all these things together you get a much more relaxing yet immersive experience, more like the real thing. But not only are such components much more expensive, they will require partnering equipment of equivalent sonic performance in order to strut their stuff effectively. Unless you are into megabuck systems, the Rega DAC will do very nicely thank you.

Rega Research Limited

[www.rega.co.uk](http://www.rega.co.uk)

Distributed in Canada by Plurison

[www.plurison.com](http://www.plurison.com)

1-866-271-5689

Rega DAC

Price: \$1095 CAD

Specifications

Inputs: 32 kHz to 192 kHz at 16/24/32 bits

Digital filter: 5 user selectable options

Jitter reduction: Synchronous clocking the digital data with receiver Phased Lock Loop

DAC chips: Twin Wolfson WM8742 driven by a buffer stage

Case: Custom steel and aluminum

Finish: Black satin or silver satin

Weight: 4 kg

Size: 21.5 cm x 27 cm x 8 cm (wdh)