

**SPECIAL
PRODUCTS OF THE YEAR
REPORT**

THE 60 BEST PRODUCTS OF 2011

DECEMBER 2011

stereophile

The CEntrance DACmini

**AFFORDABLE
DIGITAL
EXCELLENCE**



56

**PAGES—
COUNT 'EM!**

of in-depth audio
component coverage

AMPS OF ALL SORTS

from Rega, Conrad-Johnson,
Music Reference, Harman Kardon

HIGH-VALUE BOOKSHELF SPEAKERS

from Epos and ProAc

HIGH-PERFORMANCE DIGITAL

from Arcam, Empirical, Grace, Emotiva

**GET
THE BEST
FROM YOUR LPS**
with gear from Rega and Denon

Plus

**GUITARIST
BILL FRISELL
CHANNELS JOHN LENNON**

Online authority: www.stereophile.com

\$6.99



A SOURCE INTERLINK MEDIA PUBLICATION

dCS Debussy D/A processor

(\$11,499; reviewed by Michael Fremer, Vol.34 No.1 WWW)

Last year, dCS's Puccini SACD player dazzled the competition, garnering more first-place votes than any other product in any of our component categories. You'd think the revered British company might give someone else a shot at the crown. But dCS remains committed to advancing the state of the digital art, and it comes as no surprise that their Debussy D/A processor, which graced the cover of our January 2011 issue, should take this year's prize. Like the Puccini before it, the dCS Debussy distinguished itself from a strong group of contenders to win our Digital Product of the Year award.

Slim, sleek, and easy to use, the Debussy has a digital volume control, offers a full range of digital inputs including a true asynchronous USB port, and employs the latest version of dCS's Ring DAC. While its USB, AES, and two S/PDIF inputs accept

resolutions up to 24-bit/96kHz, the Debussy's dual-AES input can handle 24-bit data at 176.4 and 192kHz sample rates, so you can enjoy the latest high-resolution releases from your favorite audiophile labels. (An update to the USB input to handle 192kHz data will be available by the time this issue is published.)

Playing tracks from Soundkeeper Recordings, Reference Recordings, and HDtracks, vinyl lover Mikey Fremer was quickly transported from "Analog Corner" to digital heaven. The Debussy produced a delicate, sophisticated, and involving sound marked by deep, well-textured bass, fast attacks, and dramatically solid, three-dimensional images.

Surrounded by music yet freed from physical media, Mikey happily acknowl-



edged that "I don't see how even the most committed analog diehard would not enjoy the sound of high-resolution digital files decoded by the Debussy." John Atkinson was similarly charmed: "It was a pleasure to test such a superbly engineered product." Indeed, with its great looks, ease of use, complete complement of digital inputs, exceptional sound, and excellent measured performance, the Debussy is an easy recommendation and an obvious winner.



dCS Debussy D/A processor

By Michael Fremer • Posted: Jan 21, 2011



Don't have \$80,000 to drop on dCS's four-component Scarlatti SACD stack that I [reviewed in August 2009](#), or \$17,999 for their Puccini SACD/CD player that [John Atkinson raved about](#) in December 2009? Even if you do, the new Debussy D/A processor (\$10,999) might be a better fit for your 21st-century audio system. Sure, you don't get an SACD transport—or any kind of disc play, for that matter—but the odds today are that you already have a player you like that's got an S/PDIF output that can feed the Debussy.

On the other hand, if you're already moving toward server-based digital playback, you just need to add something like an inexpensive Mac mini computer, a 1-terabyte hard drive, a small LCD screen, and some iTunes bypass software—Pure Music or the more expensive Amarra—and with the 24/96-capable Debussy's USB input, you're in business.

Description

The remote-controlled dCS Debussy is slim, sleekly shaped, and surprisingly compact for a component weighing 20 lbs. It has a full range of digital inputs: two S/PDIF (one RCA, one BNC), two AES/EBU that can be used individually or as a dual AES pair, and a true asynchronous USB

port. The Debussy's USB, single AES, and S/PDIF inputs accept up to 24-bit PCM at 32, 44.1, 48, 88.2, or 96kHz sample rates. Its dual-AES input can handle 176.4 and 192kHz rates. There's also a BNC word-clock input, should you wish to add an outboard clock generator. The fully balanced design offers both XLR balanced and RCA single-ended outputs, adjustable level with a digital-domain volume-control. In a system with only digital sources, you can use the Debussy as a preamplifier.

Inside is the latest version of dCS's software-updatable "Ring DAC." This is a five-bit design, operating at 2.822 or 3.07MHz and handling the audio data in a proprietary five-bit format at DSD's sample frequency. All incoming digital data are oversampled to this format before being converted to analog.

According to John Quick of Tempo Sales & Marketing, dCS's US distributor, the Debussy's DAC and discrete balanced analog output sections are similar in basic architecture to what's inside the Scarlatti and other, less expensive dCS models. The singled-ended outputs follow the discrete stage with an op-amp buffer, however.

Setup and Use

Unlike the Scarlatti, the single-box Debussy is easy to set up, and even easier to use. Included is a luxurious remote control; its operation is intuitive, its feel slightly rubbery. It's not backlit, and it controls some features not found on the Debussy, so it has some extra buttons. The only aspect of the system remote that's less than ideal is having to scroll through the inputs; there's no direct selection of source from either the remote control or the front-panel pushbuttons.

Pressing the On button on the front panel once puts the Debussy in sleep mode, which mutes the analog outputs and leaves the DAC close to operating temperature. Press On for longer than three seconds and then release it to turn the dCS off. Via the remote, you can put the Debussy to sleep, wake it up, or turn it fully off, but you can't turn it on from full off. You'll probably just turn it on once and leave it on thereafter.



The digital volume control has a range of -60 to 0 dB, in increments of 0.5 dB. Although the manual assures the owner that the Debussy's Ring DAC "has linearity to spare," dCS recommends setting the control between -20 and 0 dB. A rear-panel level switch sets the full-scale outputs to either $2V$ or $6V$ RMS so that any setting between -20 and 0 dB produces a reasonable volume level in the owner's system, whether or not he uses a preamp. The sample-rate indicator, a stack of seven LEDs, doubles as an approximate volume-control indicator, in 10 dB steps.

The front panel also has buttons for Phase (absolute polarity) and Filter. The latter toggles between two filters of similar amplitude response but different time-domain behavior. Which you prefer is a matter of taste. While you can select a filter via the remote, the arguably more important choice of

polarity is selectable only from the front panel. Those who obsess over polarity (I know many who do) will get a lot of exercise.

I was able to connect the Debussy, via S/PDIF, to both my [Sooloos music server](#) and a vintage Audio Alchemy DDS•Pro transport (based on Pioneer's upside-down disc drive); via a single AES jack, to my [Alesis Masterlink](#) hard-disk A/D converter and 24-bit/96kHz recorder; and, via USB, to a MacBook Pro laptop. I also had on hand a Playback Designs MPS-5 SACD/CD player and Ayre Acoustics' DX-5 universal player, which I reviewed in [February 2010](#) and [December 2010](#), respectively. And you thought I was only "that analog guy."

Sound

The dCS produced bass that was powerful, deep, taut, and well textured. Its overall attack was equally fast and certain, as in the bass, but it didn't sound hard or etched. Instead, image contours were ideally carved in space, producing, with hi-rez files, dramatically solid, three-dimensional images that appeared out of the pitch black one normally associates only with good analog playback.

The Debussy's top-to-bottom transient performance was equally satisfying: fast, yet delicate enough to avoid hard edges and harshness. Macrodynamics were seemingly unlimited; more noticeable were microdynamics, and the Debussy's ability to reveal small dynamic shifts that further extended instrumental decay than what I'd become accustomed to from familiar recordings—even CDs. Not surprisingly, then, the Debussy's rhythmic drive and ability to induce musical involvement were sensational, particularly with hi-rez recordings. While it may not have the Scarlatti's graceful sophistication and delicacy, the Debussy more than made up for it in exuberance and musical vibrancy.

Files ripped from CDs to either of my storage systems, or direct from a transport, or even upsampled to 96kHz via Pure Music, still sounded like CDs, with a relatively constricted, cardboardy quality that, in my opinion, is to hi-rez files what MP3 is to CD. The best CDs, from either the transport or the Sooloos, did sound very good, however—as long as I didn't compare them to hi-rez PCM or SACD versions of the same material.

Mastering and recording engineer Barry Diament sent me 24-bit/96kHz WAV files of *Equinox*, the latest purist recording on his Soundkeeper Recordings label. This recording is available in multiple formats and resolutions (see www.soundkeeperrecordings.com) and features percussionist Markus Schwartz and three Haitian musicians on trumpet, electric guitar, and acoustic bass, among other instruments recorded live. I can't imagine the spacious three-dimensionality of this recording surviving a CD transfer intact. The hi-rez files of this tuneful, percussive music produced an enormous, airy space in which the instruments were clearly located and layered.

In the catchy "Yanvalloux," written in 1956 by Haitian guitarist Frantz Casseus, musical timbres were rich and warm where appropriate—for instance, on Jean Caze's flugelhorn, and on the finger-tapped, conga-like Haitian drums—while Monvelyno Alexis's hollow-bodied electric guitar had an appropriately fast attack and warm sustain. "Seremoni Tiga" features vocals and a tinkly, tambourine-like instrument, as well as trumpet and bowed bass. The Debussy's ability to produce both warmth and body and fast, icy cool, where each of those qualities was appropriate, reminded me of the best, most neutral phono cartridges. In short, whatever preconceptions digiphobes might have about digital sound would be quickly erased by listening to these superb-sounding hi-rez files.



Reference Recordings' HRx DVD-R disc of Eiji Oue conducting the Minnesota Orchestra in Rachmaninoff's *Symphonic Dances*, a 24-bit/176.4kHz recording downsampled to 24/96, produced a sensationally wide and especially deep soundstage in engineer Keith O. Johnson's traditional style: front-row width married to a back-row perspective of the reverberant field. Such a sound may not exist in nature, but it sure keeps me tuned in; instrumental timbres were, as usual, luxurious, yet images were exceedingly well defined by clean, well-articulated attack. While the strings were rich and satiny, the percussion was sharply, naturally drawn, and well defined deep into the recesses of the generous acoustic. It was even possible to ignore the fact that it "got stuck in the groove" at the end (11:55) of the first movement and had to be digitally "nudged" into the next "band." No format is perfect!

Reference's HRx disc of overtures by Malcolm Arnold, with the composer conducting the London Philharmonic, was equally spectacular, but I also have the AAA vinyl edition of this, and . . . well, you probably know where this is going. Particularly in the way the big drum *thwacks* pressurized my listening room and the airy expansiveness of the soundstage— trust me: You don't want to compare the DDD CD version with either the HRx or the vinyl edition (LP, Reference RR-48; CD, Reference RR-48 CD; HRx DVD-R, Reference RR-48 HrX).

Herbie Hancock's *River: The Joni Letters* (CD, Verve B0010063-02), downloaded at 24/96 from HDtracks.com, was equally enticing, though far more intimately rendered. The Debussy could sound hard and cold when the recording was, or warm and somewhat soft when it was that—as the Hancock recording is.

Compared to what?

After a few weeks' worth of listening to dozens of files of various resolutions, I'd decided that the combination of the dCS Debussy's honest portrayal of instrumental timbres, fast, clean attacks, and its precision in carving out solid three-dimensional images with edge definition that was not artificially sharp or etched, was right up my sonic alley. I then switched to the Ayre Acoustics DX-5 universal player and was happy to hear corroboration of what I reported in [that review](#).

There was no doubt that the Ayre was warmer and more saturated in the midrange, and it definitely had somewhat slower instrumental attacks overall. It sounded almost as if I'd inserted a tube amp into the system. Bells, cymbals, and other percussion instruments that should produce icy-cool, metallic textures were somewhat softened and muted. Double bass, too, sounded somewhat softer, warmer, and slower, with more emphasis on the wood textures and less on the string transient, all helping to create, overall, that relaxing "golden glow" I'd described in last month's review of the Ayre.

The Debussy sounded definitely leaner in the mids, had a faster attack from top to bottom, produced an airier, more expansive soundstage with greater three-dimensionality, and more solid, better-carved images. The Debussy bristled with energy and produced better image definition; the Ayre was more laid-back and mellow, producing less sharply drawn images. A system with a lean

midband would probably benefit from the Ayre's sound, which might make a system already rich in that range sound too thick.

Tastes vary, but when I played the 24-bit remasterings of the Beatles albums via USB, copied to my computer from the USB dongle version of the set, the Ayre and the dCS produced completely different pictures—same words, but with different syllables accented (metaphorically speaking, of course). The Debussy produced faster attacks and showed greater finesse in delineating images, with more metal to the sound of percussion and greater emphasis on "snap and crackle," plus deeply felt, full-bodied, but taut bass. The Ayre's thicker, midband-rich sound, ripe in bass, produced versions of familiar songs that emphasized such elements of the mix as the Moog synthesizer parts, which are usually less prominent. The difference was what you might expect to hear from switching out cartridges, or by going from a solid-state to a tubed DAC.

The differences in sound between the Debussy into a preamplifier and the Debussy directly driving a power amplifier will depend on the preamp's transparency, dynamic capabilities, and overall quality. Sending signals directly to my [Musical Fidelity Titan](#) amp from the Debussy or through my reference preamp, a [darTZeel NHB-18NS](#), I heard minimal differences. Given the darTZeel's price of \$29,500, that's what you should expect.

I also compared the dCS Debussy to [Playback Designs' MPS-5](#) SACD player and found them sonically more similar to each other with the Debussy driven via S/PDIF than either was to the Ayre DX-5. There certainly are big audible differences among various DACs, but which will best fit your system can't necessarily be determined by reading a review.

S/PDIF vs USB

Ayre Acoustics' designer, Charlie Hansen, has little good to say about S/PDIF. He claims that asynchronous USB performs far better, which is one reason he omitted an S/PDIF input from the DX-5. I could hear no differences between CDs played on the Audio Alchemy transport and fed to the Debussy via S/PDIF, and the same CDs ripped to and played by the Sooloos music server and connected to the Debussy via S/PDIF. I could also hear no differences between CDs played via S/PDIF, and the same CDs ripped and played via USB.

However, the 24-bit/96kHz files of Markus Schwartz's *Equinox*, transferred to the Sooloos and then fed via S/PDIF to the Debussy, sounded quite different from the same files decoded via the Debussy's USB port. The USB playback was noticeably airier and more spacious; the S/PDIF version sounded flatter and somewhat thicker, but also had more bass, which could have accounted for the thickness.

This was disturbing—I would have preferred to have heard no difference at all. It made me wonder: Since the Sooloos server is essentially a computer, why doesn't it have a USB output? That said, I heard no differences between the 24-bit Beatles files decoded via S/PDIF–Sooloos and MacBook Pro–USB, so perhaps something else was involved in the different sounds of the *Equinox* files.

Conclusion

You can't really fight it, nor should you: The Blu-ray disc excepted, the future of digital storage and playback is not any sort of silver optical disc. Rather, it will be hi-rez files downloaded from the Internet, stored on a hard drive, and decoded by an outboard, multi-input D/A converter such as the dCS Debussy. I don't see how even the most committed analog diehard would not enjoy the sound of high-resolution digital files decoded by the Debussy, fed via S/PDIF from either a dedicated music server like the Sooloos or via USB from a computer hard drive.

The dCS Debussy is a flexible, well-made, physically attractive multi-input DAC-preamp that makes use of dCS's highly regarded Ring DAC technology and discrete analog output circuitry. The Debussy's digital sound mirrors my general preferences for analog playback: fast, taut, extended, and dynamic, with no cover-ups: If the recording is bad, that's what I want to hear. If the recording is superb, I want to hear it in all its glory.

The dCS Debussy did both. My only complaint: you can't directly choose an input without scrolling. That makes for a very easy and enthusiastic recommendation.

Specifications

Description: Multi-input D/A processor with digital volume control and upsampling of CD data to proprietary Ring-DAC format. Digital inputs: 2 S/PDIF, (1 RCA, 1 BNC), 2 AES/EBU, USB. Word clock in on 75-ohm BNC jack. Analog outputs: balanced (XLR), unbalanced (RCA). Maximum output level: 2V or 6V (selectable). Output impedance: 3 ohms balanced, 52 ohms unbalanced. Frequency responses (Sharp filter): 10Hz–20kHz, ± 0.1 dB (Fs: 44.1 or 48kHz); 10Hz–20kHz, ± 0.1 dB, -3 dB at >38 kHz (Fs: 88.2 or 96kHz). Channel separation: >80 dB, 20Hz–20kHz. Noise: below -110 dB, 20Hz–20kHz. Power consumption: 19W typical, 25W maximum.

Dimensions: 17.6" (445mm) W by 2.6" (65mm) H by 15.5" (392mm) D. Weight: 19.4 lbs (8.8kg).

Finish: Silver.

Serial Number Of Unit Reviewed: DDC7237.

Manufacturer: Data Conversion Systems Limited, Unit 1, Buckingway Business Park, Anderson Road, Swavesey, Cambridge CB24 4AE, England, UK. Tel: (44) (0)1954-233950. Web: www.dcsltd.co.uk.