

Debussy DAC

Digital-to-Analogue Converter



The Debussy DAC is the future hub of your digital playback system. Debussy combines the legendary *dCS* Ring DAC™ and our award winning asynchronous USB technology in one box to deliver a DAC that will extract amazing performance from any digital source.

Built to the highest specifications, Debussy features a sleek solid aluminium fascia, high grade aluminium casing, all metal buttons and is powered by *dCS* electronics. Whether you use CD or a computer as your source, Debussy will extract every last bit of detail from your music collection, bringing a realism to your music that you have never heard before.

In common with our flagship Scarlatti, Paganini and Puccini ranges, Debussy uses our proprietary *dCS* Ring DAC™, which oversamples all incoming data to 5 bits at 2.822 or 3.07MS/s.

Debussy DAC features standard AES3, Dual AES and SPDIF inputs in addition to the USB 2.0 interface. The digital volume control allows direct connection to a power amplifier, thus in most cases removing the need for a preamplifier.

Maximum output can be either two or six volts to suit different amp/speaker combinations. Two filters are provided offering listeners the choice of linear phase with pre-ringing or non-linear phase without pre-ringing.

When connecting a computer source Debussy DAC operates in 'asynchronous' USB mode (NOT to be confused with asynchronous rate conversion), in which the Debussy DAC synchronises the audio by providing a feedback pipe to the computer. The computer is then effectively locked to the audio device, which provides a much more accurate clock and much lower jitter.

The PCM inputs on all our DACs are industry standard AES and SPDIF interfaces. There should be no difficulty using them with other manufacturers' equipment, provided it also complies with industry standards.

Debussy can be locked to an external Word Clock signal generated by a *dCS* Master Clock and this produces a substantial performance improvement.

Debussy also benefits from our 'soft' approach to programmable logic, allowing new software to be loaded from a *dCS* update disc or connected computer in order to add new features and adapt to future changes in digital formats.

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Digital-to-Analogue Converter

dCS
ONLY THE MUSIC

TECHNICAL SPECIFICATIONS

Type	Digital-to-Analogue Converter.
Colour	Silver or Black.
Dimensions (WxDxH)	445mm/17.6" x 392mm/15.5" x 65mm/2.6". Allow extra depth for cable connectors.
Weight	8.8kg/19.4lbs.
Analogue Outputs	Output Levels: 2V rms or 6V rms on all outputs, set by the Output Level switch on the rear panel. Balanced Outputs: 1 stereo pair on 2x 3-pin male XLR connectors (pin 2 = hot, pin 3 = cold). These outputs are electronically balanced and floating, the signal balance ratio at 1kHz is better than 40dB. Output impedance is 3Ω, maximum load is 600Ω (a 10kΩ load is recommended). Unbalanced Outputs: 1 stereo pair on 2x RCA Phono connectors. Output impedance is 52Ω, maximum load is 600Ω (a 10kΩ load is recommended).
Digital Inputs	USB interface on a B-type connector will accept up to 24 bit PCM at 44.1, 88.2, 96, 176.4 & 192 kS/s or DSD in DOP format. Operates in asynchronous mode. 2x AES/EBU on 3-pin female XLR connectors. Each will accept 24 bit PCM data at 32, 44.1, 48, 88.2, 96, 176.4 & 192 kS/s or DSD in DOP format. OR as a Dual AES pair at 88.2, 96, 176.4 & 192kS/s or DSD in DoP format. 2x SPDIF on 1x RCA Phono and 1x BNC connectors. Each will accept 24 bit PCM data at 32, 44.1, 48, 88.2, 96, 176.4 & 192 kS/s or DSD in DOP format.
Word Clock I/O	Word Clock input on 1x BNC connector. Accepts standard Word Clock at 32, 44.1, 88.2, 96, 176.4 & 192kS/s.
Residual Noise	Less than 110dB0 @ 20Hz-20kHz unweighted (6V Setting).
Spurious Responses	Better than -100dB0 @ 20Hz-20kHz.
Filters	2 filters on Debussy give different trade-offs between the Nyquist image rejection and the phase response. Filter 1 is a classic sharp filter, with linear phase and pre-ringing. Filter 2 is an alternative filter, which has non-linear phase and no pre-ringing.
Software Updates	Loaded from CD or Computer via USB.
Local Control	IR (RC5) or RS232. A <i>dCS</i> Premium remote control is supplied as standard.
Operating Systems	Tested on Windows XP/Vista/7 and Mac OSX. Operates in 'Audio Class' mode. Class 1 mode (limited to 96kS/s) does not require special drivers to be installed. Class 2 mode requires the <i>dCS</i> drivers (supplied) to be installed on Windows PCs. Not required for OSX 10.6.3 or later.
Power Supply	Factory set for 100, 115, 220 or 230V AC, 49-62Hz.
Power Consumption	22 Watts typical/30 Watts maximum.

KEY FEATURES

- Debussy DAC uses the proprietary *dCS* Ring DAC™, which incorporates several detail improvements over earlier versions.
- The *dCS* Ring DAC™ is a discrete balanced design which does not use any off-the-shelf DAC chips commonly found in other manufacturers' products.
- Our proprietary Ring DAC and oversampling topology produces exceptional linearity across the dynamic range.
- All *dCS* products use a sophisticated multi-mode Phase-Locked-Loop (PLL) which significantly reduces clock jitter.
- Faster, 100% accurate DSPs (within the bounds of their resolution) give improved filters revealing yet more fine detail.
- Higher capacity FPGAs (Field Programmable Gate Arrays) give more logic capacity and increase the scope for additional features and enhancements.
- Asynchronous USB mode prevents the computer source injecting jitter into DAC.
- Improved power supplies give lower running temperature and increased tolerance to AC supply variations.
- Our 'soft' approach to programmable logic allows *dCS* products to adapt to changes in digital formats and add new features by loading new software from a CD or a computer.
- High grade aluminum chassis and laminated acoustic damping panels reduce magnetic effects and vibration.

ABOUT *dCS*

Since 1987 *dCS* has been at the forefront of digital audio – creating world beating, life-enhancing products that are a unique synthesis of exact science and creative imagination. Each of our award winning product ranges sets the standard within its class for technical excellence and musical performance. As a result our digital playback systems are unrivalled in their ability to make great music.

All *dCS* products are designed and manufactured in the UK using only materials and components that are of the highest quality. A carefully judged balance of our unique heritage and world class engineering ensures there is a rich history of groundbreaking innovation inside every *dCS* system.

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