



PRESS RELEASE

Bryston High Performance Outboard DAC Ideal for Multiple Applications

Peterborough, Ontario Sept, 2008 —Bryston, LTD has announced that the state-of-the-art BDA-1 digital to analog converter (DAC) is now shipping to authorized dealers. The Bryston BDA-1 is an external stereo DAC using fully discrete Class-A proprietary Bryston analog circuits, two independent linear power supplies and dual Crystal CS-4398 DAC chips. The BDA-1 has an MSRP of \$1995 US.

The key to the BDA-1's inherent flexibility is an impressive array of inputs for USB, COAX, OPTICAL, AES-EBU and BNC equipped digital devices. For audio outputs, the BDA-1 offers both balanced XLR as well as unbalanced RCA stereo connectors on the rear panel. The BDA-1 is RS-232 software upgradeable, making it the most user-friendly high performance DAC on the market.

Power Supplies: The BDA-1 power supply employs two independent power transformers—one each for the digital and analog sections of the device. In the BDA-1, each stage in the digital chain is also independently regulated to prevent any unwanted interactions and to provide rock solid power delivery for any up-sampling/over-sampling process.



Crystal DAC Chips: The BDA-1 incorporates dual Crystal CS-4398 DAC chips, some of the finest available on the market today. The CS-4398 is a hybrid multi-bit delta-sigma DAC, which is an advanced generation chip that uses several methods to optimize the conversion process. The CS-4398 operates in one of three oversampling modes based on the input sample rate: Single-speed mode supports input sample rates up to 50 kHz and uses a 128x oversampling ratio, double-speed mode supports input sample rates up to 100 kHz and uses an oversampling ratio of 64x, and quad-speed mode supports input sample rates up to 200 kHz and uses an oversampling ratio of 32x. This allows the CS-4398 DAC to utilize filters that work beyond the audible range.

Jitter Reduction: The input signal to the Bryston BDA-1 is re-clocked and re-sampled to reduce any possibility of jitter (jitter is a mistiming of the data being moved from point A to point B in any synchronous digital system) affecting the sound quality. Additionally, the BDA-1's input receiver and sample rate converter have both been engineered to further reduce jitter.

Digital Input Matching Devices: The BDA-1 employs high quality devices call impedance matching transformers providing the optimal interface to virtually any incoming source under all sorts of signal conditions. Lesser quality terminations will degrade the signal and could cause increased jitter.

Discrete Class-A analog stage: The Bryston BDA-1's analog circuits are constructed carefully sorted and selected discrete devices (individual transistors, resistors, and capacitors) instead of the commonly used integrated circuits. The use of discrete devices has enabled Bryston to design a circuit that exactly matches the needs of the BDA-1, resulting in superior sound quality.

Hand Assembled: Bryston applies techniques and employs custom materials in our everyday construction of electronic equipment that are more typically utilized by military and aerospace industries. Such techniques prevent unit-to-unit variability that is inevitably the result of mass production. Bryston's adherence to the use of proprietary parts, sophisticated construction, and refined testing techniques guarantee superb performance and overall product longevity.

BDA-1 Features:

- Dual 192K/24Bit Crystal DAC's
- Independent dual power Supplies
- Discrete Class A analog output stage
- Synchronous upsampling (176.4K/192K)
- Independent analog and digital signal paths
- USB (1), COAX (2), OPTICAL (2), AES-EBU (1) BNC (2) inputs
- 32, 44.1, 48, 88.2, 96, 176.4, 192K sampling
- 16-24Bit PCM, 16Bit 32K-48K USB
- Fully differential balanced XLR and unbalanced RCA stereo outputs
- Transformer coupled SPDIF and AES EBU digital inputs
- SPDIF COAX bypass loop output
- RS-232 software upgrade
- Optional remote control
- Remote 12 Volt Trigger
- Compatible with CD drives, sound cards, computers, music servers
- Cosmetically matches C-Series BP26/MPS2/BCD-1

About Bryston: *Bryston (www.bryston.ca) first opened for business in 1962 as a manufacturer of blood analysis equipment, and was named (as an acronym) for its three founders, Tony Bauer, Stan Rybb, and John Stonborough. In 1968, NASA engineer John Russell, Sr. relocated himself and his family to Canada from the US and bought the company, where his son Chris set to work designing the first Bryston amplifier. The Pro 3 made its debut in 1973, and since that time, Bryston components have become legendary for their hand-assembled build quality, performance and reliability in both the pro audio and consumer audio market segments. Bryston amplifiers are utilized in some of the world's most renowned recording studios and owned by many discerning music industry professionals. Bryston applies manufacturing techniques and materials in the everyday assembly of their electronic equipment that are more typically utilized by the military and aerospace industries. Bryston is now based in Peterborough, Ontario Canada, just northeast of Toronto, and sold through over 150 dealers in North America and 60 countries worldwide.*

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