SECRETS of Home Theater and High Fidelity review

Bryston BP-26DA Stereo Preamplifier with Built-in DAC - December 2007

"... an ideal choice for anyone who wants to have ultra-high-end sound ..."

BY JOHN E. JOHNSON, JR.

"... a superb preamplifier (...) neutral, with very, very low distortion"

INTRODUCTION

Media Servers are exploding in sales, and wireless distribution throughout the house is the way to go.

Most of our music is on conventional two-channel (stereo) CDs, rather than surround sound, and wireless music servers reflect this by being two-channel in design, having Toslink and coaxial digital outputs, as well as two channel analog (RCA) outputs.

The problem with these wireless servers (so far), is that they are not audiophile-grade quality. There is nothing wrong with them, but the high end has just not caught up with wireless music serving yet.

Squeezebox is a typical example. For $299 (USA) you get a box that receives music wirelessly from the media server, converts it to analog with a built-in DAC, or forwards the digital bitstream on to your own DAC. It also has a display screen to show you a list of music files to choose from.

At this price, it is really a good product, but you can imagine that it does not have top of the line DAC chips or discrete output stages running in Class A.

Of course, you could just send the digital stream to your receiver, but those are 5.1 systems. What if you want to play CDs through a high quality two-channel system in another room?

In general, high end stereo preamplifiers don't have DACs. Rather, they just have analog stereo inputs.

So, what can you do to insure that the highest quality signal goes through that two-channel system, receiving the signal from the wireless music server?

BRYSTON BP-26DA

Bryston, Ltd., a Canadian manufacturer of considerable renown, comes to the rescue here. The BP-26 is a high end solid state stereo preamplifier that has an option of including a stereo DAC, making it the BP-26DA. So, you can connect the coaxial output on the wireless music receiver, such as the Squeeze-

box, to the coaxial digital input on the preamplifier. There are two other versions, the BP-26P and BP-26MC, which have phono stages.

The BP-26DA preamplifier itself has a control chassis that is separate from the power supply (called the MPS-2). They are priced separately, but the BP-26 can't operate without the power supply. It is just that the MPS-2 can be used with several other Bryston products, so it is also sold with those products. Also, if you have the older BP-20 or BP-25, the MPS-2 could be purchased as an upgrade. The power supply has 68,000 µF of capacitance and is designed for high current output.

In the photo below, you can see the control unit sitting on top of the power supply. There are toggle switches to select from two coaxial digital inputs that feed the DAC. There is also a mute switch and phase reversal switch. A balance control lets you tweak the left and right channel volume. The power on/off toggle is on the power supply chassis.

The rear panels have a large array of XLR as well as RCA connectors for inputs and outputs, as well as the power supply jack (top left corner of the control chassis and bottom right corner of the power supply chassis). There are actually four power supply outputs, so you could, in practice, connect four Bryston products to this one power supply at the same time.

The two chassis together are heavy, which is a reflection of the large power supply. This is very important for delivering voltage peaks during transient demands that exist in many musical passages. In my opinion, you need at least 10 volts RMS analog output capability from a preamplifier before clipping, via unbalanced connections, to get the full transients, and that is a feature of high end products, not inexpensive mass market receivers. The BP-26 is capable of delivering 15 volts through RCA and 30 volts through XLR outputs.

The BP-26 comes with a very nice remote control that is typical of the current trend in the high end: all metal and quite heavy. It has buttons for volume, mute, and phase. Simple.

"Kudos to Bryston here ..."

IN USE

For the listening tests, I used a McIntosh MCD201 SACD player, Lamm M2.2 power amplifiers, and Carver Amazing Mark IV ribbon speakers. A Squeezebox wireless music server was used for the DAC music tests, receiving music files (*.wma) from a server located in another building. A coaxial cable was connected to the Squeezebox coaxial digital output and the DAC-1 coaxial input on the Bryston preamplifier. Cables were Legenburg and Nordost.

This Telarc SACD (SACD-60595) has a newer version of my favorite Telarc recording of Copland's Fanfare for the Common Man. It is not as thunderous as the original one that I love, but it still is a real test for any hi-fi component.

The BP-26DA delivered all of the bass in the music, and one of the power amplifiers shut down for a second (when it senses clipping, it disconnects the speaker output to prevent damage to the speaker). Of course, I had the volume up too loud anyway, but I wanted to see if the Bryston could put out high current demands in strong bass passages. Obviously, it did.

This Telarc (SACD-60636) recording of the Mozart Requiem makes me think of the

fabulous movie Amadeus. The orchestra, chorus, and soloists were blasting away full tilt, but everything (instruments and voices) remained distinct. This is a testimony to low IMD, which you will see in the On the Bench section of this review.

I don't normally like classical music that has been adapted in jazz fashion, but this Telarc disc (SACD-63590) is excellent.

As a percussionist myself, I always look for clarity in the way the cymbals are played, and they had a sheen in the recording that I really enjoyed.

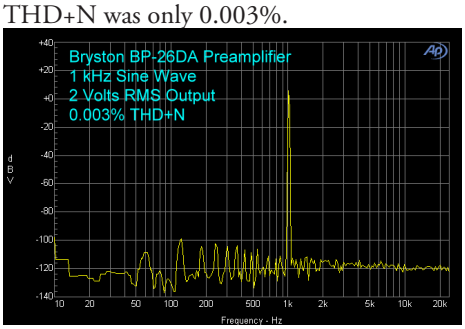
If you look at the cover of this Telarc SACD (SACD-60630), you might think these guys are playing chamber music. However, the rear listing of the tracks tells you that it is jazz.

What I listened for was the detail of each instrument across the soundstage, and I don't see how it could get any better than this.

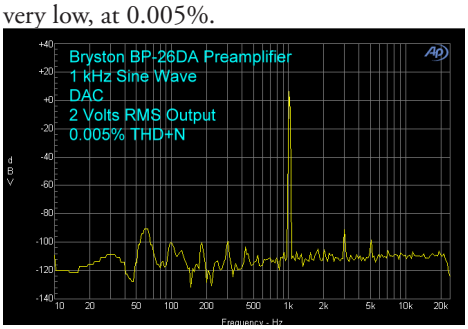
ON THE BENCH

For the bench tests, I used an XLR input and XLR output. Bandwidth for THD+N tests was 80 kHz. The input impedance of our Audio Precision was set to 100 kOhms.

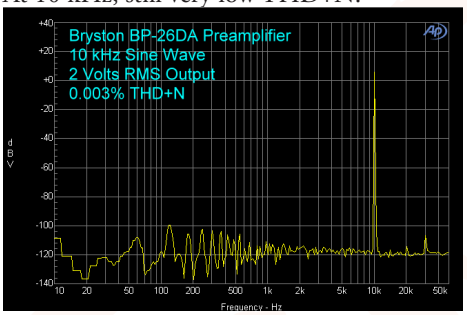
Bryston states that they have lowered the distortion in the latest version of this product, and it shows. At 1 kHz and 2 volts output, THD+N was only 0.003%.



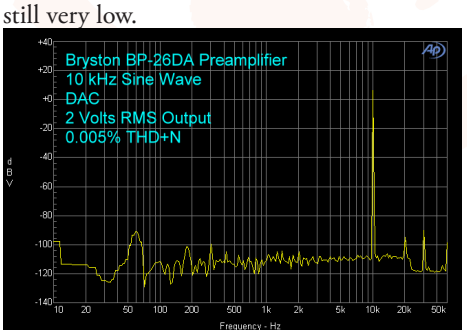
When the 1 kHz was input as a digital signal (16/44), THD+N went up a bit, but was still very low, at 0.005%.



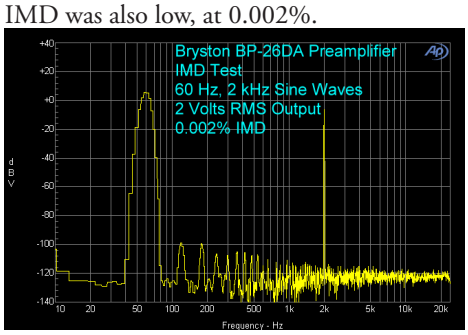
At 10 kHz, still very low THD+N.



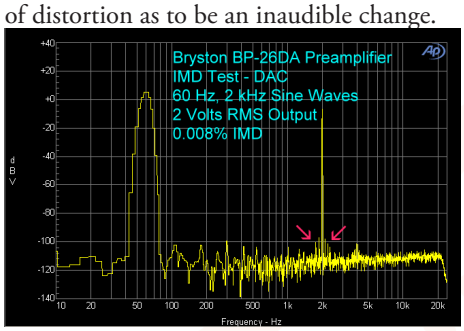
And using the DAC, although up a bit again, still very low.



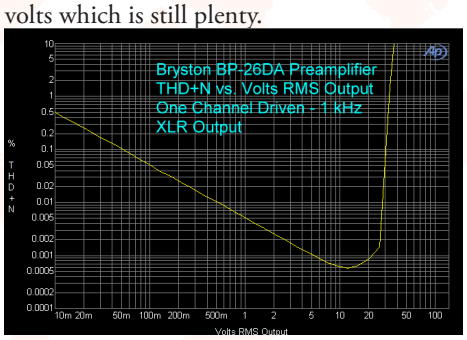
IMD was also low, at 0.002%.



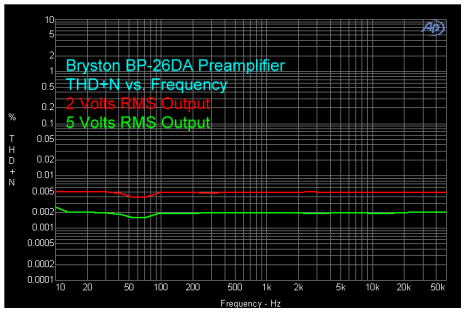
Inputting the signal via the DAC, IMD went up to 0.008%, but that is still very low. You can see the IMD peaks (red arrows) compared to no visible peaks in the graph above. So, using the DAC does add some distortion, but it is, in my opinion, such a low amount of distortion as to be an inaudible change.



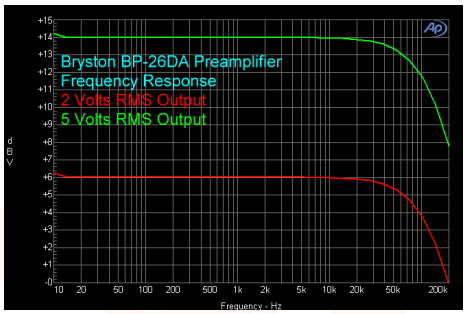
Output through XLR clipped (1% THD+N) at 34 volts, using one channel. It is specified to be 30 volts output maximum with both channels operating, so this is right on the spec. Via unbalanced output, it will be 15 volts which is still plenty.



Below is what I consider to be one of the most important graphs for bench tests: THD+N vs. Frequency. You can see that distortion is just about a flat line across all frequencies for both 2 volts and 5 volts output. This means absolute neutrality in sound. If the graph goes up in the higher audible frequencies, it will add an "edge", and perhaps a little brightness, to the sound. Not necessarily bad (as long as the distortion is a low figure), since many consumers enjoy this, but it is not neutral. Kudos to Bryston here, as getting a flat response like this is difficult.



The measured frequency response was 20 Hz to 20 kHz, - 0.1 dB.



CONCLUSIONS

The Bryston BP-26DA is a superb preamplifier. The sound is neutral, with very, very low distortion. It is a reference quality product, and an ideal choice for anyone who wants to have ultra-high-end sound in their two-channel wireless media server setup (and even if you don't have a media server . . . yet).

Specifications:

- Design: Solid State, Two Channels, Separate Power Supply
- Maximum Output: 30 Volts RMS Balanced; 15 Volts Unbalanced
- Inputs: Two Pairs XLR Analog, Six Pairs RCA Analog, Two RCA Coaxial Digital, One Tape Loop
- Outputs: One Pair XLR, Two Pairs RCA
- MFR: 20 Hz - 20 kHz ± 0.5 dB
- THD+N: 0.0015% at 3 Volts
- DAC: Crystal Semiconductor; One Per Channel; 24 Bit/108 kHz Maximum Sampling Rate
- Dimensions: 6" H x 19" W x 11" D (Both Units Stacked Together)
- Weight: 30 Pounds Total
- MSRP: $5,095 USA as Reviewed

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