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bel canto

3.5VB DAC

as reviewed by Robert Learner



Backstory

Like the bartender I was smitten with at my regular joint of years past, I'd been intrigued by Bel Canto products from afar for a long time and for several reasons. Of course, it all began with looks. In an industry where size, stylistic excess and quality often get equated, for years now Bel Canto has stuck with a small, elegant chassis.

They've stuck with sane prices too. Nothing over four figures—there's an impression of value in the line rather than the stupidly random pricing often seen in high-end audio. A contributor to this value is likely that small chassis. Requiring less material, it should cost less than a full size box. Smaller is easier to make rigid too which can help sonics, and that chassis is standard across the line—one size fits all. That's smart, cost-efficient production as well as making for a nice looking stack.



The components are also efficient as in 'green'. No one buys audio equipment based on watts saved, so environmental responsibility appears to be a core company value. Bel Canto has been producing digital amps for years (90%+ efficient), and their components are designed to consume very little power in standby.

Finally, I'd always heard Bel Canto made good sounding stuff, but never actually *heard* one of their components in a familiar system.

Net of all of the above was the impression of an engineering-driven company that arrived at its own vision of what components can and should be. Net *net*, I requested some review samples from Bel Canto.

Now that I've finally logged some time with Bel Canto components including the DAC 3.5VB (\$4990) on review here, I can confirm: they are sane, smart and high-performance pieces. Finally got some time with the bartender too, though with her, had to live with just two of those traits.

Story

The 3.5VB sits atop the 1.5 and 2.5 in Bel Canto's DAC lineup. All feature the same single dial volume/source selection interface. The 3.5 will display the chosen source and volume, as well as the incoming sampling rate. As one who throws 44.1, 48, 88.2, 96, 176.4 and 192kHz files (we used to call them songs, no?) at a DAC, I appreciate the confirmation. A remote controls all front panel functions as well as balance, phase and display dimming. Inputs can be renamed or shut off if unused. Nice to see a high-end company not afraid to embrace the convenience and compactness of 'lifestyle' components.



The VB refers to the Virtual Battery, an extremely low noise power supply in a separate chassis that can juice up to three compatible Bel Canto components. The 3.5VB has both single-ended and balanced outs, and five digital inputs: ST fiber, AES/EBU, Toslink and two S/PDIFs, one of which requires a BNC connector. There is also a single analog input—a great feature if you're looking to use the 3.5VB as your preamp and have turntable or home theater you want to integrate it into. Note that the analog signal is digitized.



Note too that there's no USB input. To run music from your computer via USB, you'll need a USB to S/PDIF converter. Bel Canto makes one as well a version that outputs to ST fiber cable; recommended for longer runs.

Finally, the unit can be set for variable output and used as a preamp to directly drive an amp or the output can be fixed and run into a preamp. Further details on the design of the DAC can be found in my [Q&A with designer John Stronczer](#) elsewhere on the site.

Setup

As per the instructions, I ran the DAC 3.5VB for a hundred hours before digging in. I listened to it on its own, then in comparison to the Berkeley (\$5000), Ayre QB-9 (\$2500), and original Benchmark (\$1295) DACs. Cost-wise, I consider the Berkeley and Ayre to be on the same price plane as the Bel Canto. The Berkeley offers similar functionality to the Bel Canto including volume control. The Ayre is nearly \$2500 cheaper than the Bel Canto, but can't operate as a preamp and has only a USB input.

The Benchmark, while less than a third of the price of the Bel Canto, sets a high price/performance bar with similar functionality. Is the 3.5VB worth the extra cash?

For the Berkeley (and Benchmark) comparison, I ran the S/PDIF output of two sync'd Squeezebox Touch streamers to each unit. Both DACs were hooked via balanced connections to an Audio Research Ref 5 preamp, and using the preamp's remote to switch inputs, I could easily flip between the two DACs within a song without losing a beat. Thousands of songs, two high performance DACs to sample, and I never had to get up from the sofa. I can feel your envy! Perhaps we all (or just me) need to get out more.

A Macbook Pro using iTunes fed the Ayre, which was hooked to the Ref 5 by balanced connections. Here was the vaunted asynchronous USB connection scheme by which

the DAC controls the timing of the computer's output to eliminate timing errors. For many, this is the hookup method of choice.

As a final test, I hooked the B3.5VB directly to my amps using it as a preamp. This was compared to having the Ref 5 preamp in the chain.

All files were either Apple Lossless rips from CDs or 24/96 and 24/88.2 flac or aiff files. None of the DACs had a problem with any of these files, though using iTunes to feed the Ayre required switching the bit/sample rate output of the Macbook to match the particulars of the file playing. A pain, but audiophiles represent about .0001% of the iTunes market, so despite rumors, I'm not holding my breath for automatic sample rate switching from Apple anytime soon. The Squeezebox Server does this for you. Programs like Pure and Amarra will too, and might be reason alone to buy them if you run your music directly from iTunes.

Finally, all the DACs were level matched before comparison. On with it.

Sound

There are DACs that advertise themselves as 'analog-like' or its corollary, 'warm'. *The warmth of analog restored to digital!* Disclosure: that ain't my cup of tea at all, and I'm a huge vinyl fan. It strikes as a wrong-headed way to design. Instead of making digital the best it can be, let's try to shape it into something else. Try that with your spouse.

Further, everything's a trade-off. While the above approach might help bad recordings, it will almost certainly diminish the thrill of your best recordings by watering or *warming* them down. I'd rather not raise the average height if it means lowering the summit.

The point I'm laboring toward: the Bel Canto 3.5VB strikes as a fundamentally honest DAC. Which is to say that while no doubt a lot of listening went into the design, this isn't a DAC that sounds *voiced*. It's more about fidelity to the source. I'll guess it measures very well, and that's a good thing, especially for a DAC.

The 3.5VB has a super-clean, upfront presentation—this should not be confused with 'sterile'. It sounds full-blooded, yet not afraid to let the sharp, edgy attack of Lou Reed's opening guitar hits on "Turn to Me" from the underrated *New Sensations*, be sharp and edgy. This increases the jump factor which I value highly, but may not be the top choice for those who prefer a more laid back, mellow sound. Which, by the way, is often the result of subtle compression.

I believe two factors are at work here. First is the utter lack of noise present in the unit. What's meant by super-clean is a lack of *muffling* on either a macro or micro level. What's there is heard. Great detail with no slurring anywhere in the frequency spectrum.

Second is the lack of roll-off at high frequencies which was apparent compared to some of the aforementioned DACs. Low noise plus high frequency purity and extension yielded the best sense of attack of the bunch.

The high resolution/low noise also likely contributes to the superb handling of decays through the Bel Canto. They never seemed foreshortened. The Celeste (a piano-like instrument where the hammers strike steel plates sitting on wooden resonators) hits on Aimee Mann's "You Do" on the Mobile Fidelity remastered CD *Bachelor #2*, had a beautiful, clean and sustained glow. Among other things, well-handled decays contribute to image density—longer lasting notes yield more overlap among instruments at a given point in time.

Ayre vs. Bel Canto

Flopping back and forth within a song between these DACs yielded no obvious tonal shift. In fact, it took *work* to distinguish them. Most apparent was that the Ayre sounds subtly rolled off at high frequencies vs. the Bel Canto. It took the right track and the right notes to reveal this—but it was a consistent observation. The Ayre also has the slightest bit more ambience and delicacy around voices. Running "Boogie Street" on *Leonard Cohen Live*, Sharon Robinson's voice had a touch more glow around it—accurate I don't know, but attractive, yes. I found the same on the XX's "Nighttime" on their self-titled debut. In sum, the Ayre has a bit of magic in the mids that the Bel Canto lacks, but overall it is a less direct and exciting listen. To wit, the 3.5VB was a touch

more transparent on the Aimee Mann cut.

Berkeley vs. Bel Canto

Again, flopping back and forth revealed no overall tonal shift—as with the Ayre, these two DACs sound more alike than different. Where the Berkeley excels is in separation of instruments in space. It provided a deeper soundstage than the Bel Canto. However, though not as much as the Ayre, the highs also sounded subtly rolled off vs. the Bel Canto. In fact, the whole presentation was very slightly softer. For those who find even the best digital too harsh, the Berkeley would be the choice here.

Benchmark vs. Bel Canto

It was relatively easy to distinguish these DACs from each other. While I'm a huge fan of the Benchmark at its price point and find it to outperform several more expensive DACs, the Bel Canto is the clear winner here. First off, the Benchmark sounds a bit lean in comparison. On the great Dave's True Story's self-titled album, Kelly Flint's vocals on "Marisa" had a nicer ambience around them via the Bel Canto—she sounded bigger and more lifelike. Another great recording, 'St. James Infirmary' by Hans Theessink on *Songs From the Southland*, made clear the greater resolving power of the Bel Canto. I would be curious to hear how the latest Benchmark with upgraded output stages compares the DACs discussed here.

Bypassing the Ref 5 and driving my amps directly with the Bel Canto was a surprise. Though the sound was excellent, I expected a bump up in detail that I did not detect. Putting the Ref 5 back in yielded a more 3D presentation and a sense of notes emerging from the void as if in a darker room. The 'darker room' phenomenon helped sustain the dramatic tension on such tracks as the Cowboy Junkies' cover of "State Trooper" on *White's Off Earth Now*. The above is less a knock on the Bel Canto than an endorsement of the \$12,000 Ref 5. Sometimes there is addition by addition.

Conclusion

Slightly, subtly, a touch more—I don't want to overstate the differences between these DACs. They are three marginally different flavors, and swapping them in your system will not result in transformation.

A broad hunch from a non-engineer: where the Ayre and Berkeley use a lot of DSP 'math' for their sound and, to wit, give you selectable filters to play through, the sound of the Bel Canto 3.5VB is what you get when you eliminate jitter and noise with extreme skill and religious zeal, and combine that with a great output stage.

I'm an audiophile because of the music I grew up on in Chicago blues bars. Those bands, those venues were not about ambience and delicacy. The music was direct drive of the soul. I wanted that feeling in my house... that uplift. And while my taste in music and the reproduction of it has broadened and gained in sophistication—I still value an upfront, direct communicator above all. I'd sacrifice the subtle, beguiling midrange glow of the Ayre, and the slightly deeper, more 3D presentation of the Berkeley for the direct feed quality of the Bel Canto. **Robert Learner**

3.5VB DAC

Retail: \$2995, VBS power supply \$1495

Bel Canto Design

web address: www.belcantodesign.com

Addendum

My review of a complete Bel Canto system including the 3.5VB review here, 1000M monoblock amps and phonostage 2 will be up next month.

At CES this year, I heard the new Bel Canto C5i DAC/integrated amp. At \$1995, it's a killer piece that is exactly what the high-end should be doing.

While finishing this review, I received the \$12,000 EERA Tentation CD player for evaluation. In a brief listen, it's a unique sounding piece.