

Wyred 4 Sound DAC-2 Digital to Analog Converter Reviewed

By Andrew Robinson

Digital to analog converters, or DACs, are becoming increasingly important in our growing digital music world. I can think of no other category, save maybe soundbars, that has seen such a surge in recent memory. Seemingly everyone is jumping on the DAC bandwagon and, while that may bode well for variety, that doesn't necessarily mean it bodes well for quality. Thankfully, there's Wyred 4 Sound, an Internet-direct company that makes, you guessed it, several different DACs. However, unlike many of their counterparts, Wyred 4 Sound's DAC offerings have managed to ruffle a few feathers and have gotten under the noses of some high-priced competition, which is why I had to have a listen and hear for myself.

The DAC-2 is Wyred 4 Sound's flagship effort, though it sells direct for a very un-reference price of \$1,499. Available in your choice of black or silver, the DAC-2 is a handsomely unassuming piece that looks far better in person than it does in photographs. It's also larger in person than it seems in photographs, measuring eight-and-a-half inches wide by a little over four inches tall and 13.5 inches deep. It isn't light, either, tipping the scales at 16 pounds, which for a DAC might as well be 100. Still, its construction is solid, its connection options, which I'll get to in a second, are of a high quality and its feature set is more akin to what you'd expect from a preamp than your run of the mill DAC. There's a reason for this, of course: it's because the DAC-2 is also a preamp.

Performance: ★★★★★

Value: ★★★★★

Overall: ★★★★★



As for input/output options, the DAC-2 has two coaxial digital inputs, two optical audio inputs, one AES/EBU input, one I S2 input (via non-standard HDMI cable) and a 24-bit, 192kHz Asynchronous USB input. A word on the DAC-2's digital and USB inputs: the coaxial digital inputs are capable of accepting signals up to 32 bits in length and 200 kHz in frequency, whereas the optical inputs can only handle up to 176.4 kHz due to the limitations of the format's transmission properties. The DAC-2's USB input can handle 24-bit, 192 kHz signals. Outputs include a pair of unbalanced and balanced (true balanced design) audio outs. There's even a home theater bypass via a pair of unbalanced inputs. A detachable power cord and a 12-volt trigger round out the DAC-2's connection options.

Under the hood, the DAC-2 employs an ESS Reference Audio (ES9018) 32-bit DAC chip. The ESS chip is an eight-channel design, utilizing four differential D-A conversion circuits per channel, making it a quad-differential design. This allows the DAC-2 a lower signal to noise ratio, as well as increased output drive capability. Wyred 4 Sound uses proprietary output stages for improved sonic capability, along with an ESS Time Domain Jitter Eliminator. The DAC-2 automatically oversamples all incoming signals and its digital, output and USB boards are all upgradeable in the future should technology improve or change. The DAC-2 has an oversized torrodial transformer, over 115,000uF of capacitance, as well as 88,000uF of filtering via the Wyred 4 Sound low ESR "super-cap." The analog output stages are separate from the digital ones to ensure sonic purity and optimal performance.

All of the DAC-2's various functions and features can be controlled via its hard controls or via the remote. The included remote has controls for power, balance, home theater pass-through, volume, display brightness, input selection, phase and mute. While unassuming and non-backlit, the DAC-2 remote is nothing if not functional and a welcome addition for a DAC of this magnitude.

The Hookup

Installing the DAC-2 into one's system is easy enough if you plan on using it for a single source or function, for instance, connecting it between your CD player and preamp either via an optical or coaxial digital connection. However, for the purposes of this review, I chose to install the DAC-2 in a myriad of different ways, beginning with connecting it to my AppleTV via an optical cable connected to the DAC-2's optical 1 input.

From there, I connected my Cambridge Audio Azur 751BD universal Blu-ray player to the DAC-2 via both optical and coaxial inputs, optical 2 and coaxial 1, to be exact. Now, the Azur 751BD has its own internal DACs (which are bypassed when using the player as a transport), but I wanted to see if there was a sonic improvement by having the DAC-2 in the chain, as opposed to out.

*“...I wrote the note *makes iTunes not suck box...to describe the DAC-2's performance when fed low-resolution music, such as the MP3 I had created for it to choke on.*”*

For comparison's sake, I connected my Azur 751BD directly to my Integra DHC 80.2 preamp via its analog audio outputs with the Integra set to direct, so as not to affect the sound in any way, or at least affect it as little as possible. As many of you may or may not know already, the 751BD uses the same DAC setup as Cambridge Audio's DacMagic, which has served as my affordable reference for well over a year, so it too was on hand for comparison's sake, though it should also be noted that the DACMagic is a third of the price of the DAC-2. Lastly, I connected my wife's MacBook laptop to the DAC-2 via its USB input and the included Wyred 4 Sound cable.

For the majority of my review period with the DAC-2, I used it as a DAC only, meaning I ran it unbalanced to my Integra's CD input with the DAC-2's volume set to "fixed."

When I did use the DAC-2 as a preamp, I connected it via its unbalanced outputs to my Pass Labs X250.5 amplifier, which was powering my reference Bowers & Wilkins 800 Series Diamond loudspeakers. To ensure a level playing field, all inputs, whether they were on the DAC-2 or my Integra AV preamp, were level-matched using a Radio Shack digital SPL meter. All digital cables were generic in brand and the same across the board. The analog interconnects were from Crystal Cable, as were the speaker cables. The only cable I had on hand that I couldn't duplicate was the USB cable, for I only had one that was compatible and it came from Wyred 4 Sound.

I let the DAC-2 settle in for the better part of a week before doing any critical listening.

Performance

I tackled my evaluation of the DAC-2 with Barenaked Ladies' album *Gordon* and the track "The King of Bedside Manor," which is an up-tempo, raucous song that, despite its early '90s pop roots, is surprisingly well-recorded. Setting a benchmark via my Cambridge Audio 751BD player, the track was lifelike in its scale, with a soundstage that was as deep as it was wide, with tremendous detail and focus throughout. Lead vocals from front men Steven Page and Ed Robertson were grounded firmly on either side of center and played off one another brilliantly, with the remaining musicians and instruments existing several feet behind them. Tonally, the 751BD was a touch warm, or shall I say rich, thanks to a slight fullness in the lower mid-bass and a smoothing of the high frequencies. Overall, the presentation was still energetic and engrossing and among one of the best demos of the track I'd heard in a long while.

Switching things over to the DAC-2 and using the 751BD as a transport, the differences were not what I would describe as night and day. However, they were still apparent. Gone was the lower mid-bass bloat, as well as the artificially smooth highs. The DAC-2 didn't transform the sound into something completely different, it didn't make the highs shrill or harsh, nor did it result in an anemic midrange - it just livened things up a bit. The DAC-2 kept the meat on the bones, but made it so there was a touch less fat. This weight loss, if you will, gave the entire presentation a bit more focus, resulting in every breath and note arriving a touch sooner and lasting a bit longer. The difference was subtle, but noticeable. The DAC-2 did not rob the track of any of its rhythm, nor did it alter the soundstage in any way. The changes were welcome and consistent throughout the rest of the album but, if I'm honest, it wasn't as if the presentation afforded to me by the 751BD on its own was horrid and the DAC-2 somehow made it not. It was just a little bit better.

Now, using the same track, only this time ripped to iTunes in both MP3 and AIFF format and played back via my AppleTV and my wife's MacBook, things became more interesting. iTunes has taken its fair share of flack for favoring convenience over quality, which is why most audiophiles cringe at the very thought of listening to downloaded music or any ripped music that isn't a bit-for-bit copy. Playing back the MP3 version of "The King of Bedside Manor" via my AppleTV into the DAC-2 wasn't an altogether awful experience. In fact, I wrote the note "makes iTunes not suck box" in the margins of my audio journal when trying to think of a way to describe the DAC-2's performance when fed lower-resolution music, such as the MP3 I had created for it to choke on.

I'm not suggesting the DAC-2 somehow managed to make a 256K file sound every bit as good as the original, but it did clean it up quite a bit. There was some audible compression in some of the high frequencies, resulting in a bit of sibilance that wasn't present in the original, and the three-dimensionality that existed in the CD's performance was flattened a bit. Still, had you not heard the original prior to the DAC-2's MP3 demo I'm not sure you would've picked up on the changes as quickly. I'm confident many would've written the track off as being but a part of a less than audiophile-grade recording, which was typical of the time period in which Gordon was recorded. Switching back to the CD, via the 751BD transport, brought about new levels of clarity, but again, the MP3's performance via the DAC-2 was still enjoyable.

“...an affordable alternative to a true cost-no-object digital front end...as good as costlier players, such as Mark Levinson’s No.512...”

Playing back the AIFF file of the same track via my wife's MacBook proved to sound virtually indistinguishable from the original. Even the MP3 track via the DAC-2's USB input proved to be enjoyable and even a touch better, especially in the higher frequencies, than my demo with the same file as played through my AppleTV. My DacMagic DAC has a USB input not unlike the DAC-2, though I've found it to be the weakest link in its choice of connection options, which is not the case when talking about the DAC-2's USB input.

Granted, one has to install Wyred 4 Sound's proprietary driver on their computer before being able to enjoy the DAC-2's USB capabilities, but it's still remarkable how well it performs.

Back to the 751BD/DAC-2 combo for a moment, as an affordable alternative to a true cost-no-object digital front end, the pairing proved to be every bit as good as costlier players, such as Mark Levinson's No. 512 SACD player, which I've spent considerable time with, for it served as my reference CD/SACD player until recently. As the No. 512 costs \$15,000 the 751BD/DAC-2 combo will set you back \$2,748, that's a big jump in price, which leads me to believe that unless you're willing to spend EMM Labs kind of money, you should mate whatever you want to the DAC-2 and move on with your life, for it's that good. Adding a DAC-2 to the 751BD didn't result in night and day differences. Even so, the combo, plus the added benefits the DAC-2 affords you, especially its deft touch with lower resolution files, makes it a worthy investment and one that will only cement the quality of your digital front end.

But wait, what about the DAC-2 as a preamp?

As a digital preamp, the DAC-2 is a knockout. It's the epitome of one hand clapping in that it has no real sound of its own - it's dead nuts silent. Compared to my Integra DHC 80.2 AV preamp, the DAC-2 serving as a preamp sounds positively pristine and as transparent as a pane of glass. Truthfully, if it had a subwoofer output and an analog input or two, Wyred 4 Sound would not only have a world-class DAC on their hands, but a preamp as well. Still, if you can get away with its digital-only inputs and single pair of analog audio outs, the DAC-2 might be all you and your two-channel system require.

The Downside

As a standalone DAC, the DAC-2 is hard to fault. Hell, it's difficult to fault it even as a DAC/preamp, for it's not like it necessarily does anything wrong, especially when you consider its \$1,499 asking price.

Those of you who utilize rack systems, such as those from Middle Atlantic or Sanus, will probably be annoyed by the DAC-2's half-width form factor, but it's hardly what I'd call a deal breaker.

I suppose the thought of an all-digital system is a bit limiting. Then again, even turntables are beginning to ship with digital or USB output options, so perhaps that argument is quickly becoming moot. You can't add a subwoofer to the DAC-2, which means that unless your speakers are full-range, using it as a preamp does have some limitations. However, I have to imagine that, in the not too distant future, the only preamp one will be able to buy will be a digital DAC of some sort, for we seem to be drifting further away from our analog roots with each passing year. Even AV preamps these days are little more than multi-channel DACs, for few of us even use, let alone need, the copious amount of legacy connection options that most AV preamps give us.

At present, you can't stream music directly to the DAC-2 which is about the only real downside I can think of, though I'm sure future iterations will no doubt include this feature. In the meantime, you can add a \$99 AppleTV or the like and stream music to the DAC-2 to your heart's content, as I did.

Competition and Comparisons

The most obvious comparison to the DAC-2 has to be Bel Canto's lineup of DACs, or, as Bel Canto calls them, "processors." Bel Canto's DACs start at \$1,395 on their way up to \$3,495. It's the \$3,495 DAC3.5VB that most closely resembles the DAC-2 in terms of performance, though I have to imagine the added \$1,996 is there to cover dealer margins and its gussied-up faceplate, to which I say, keep it, for the DAC-2 is good enough for me.

On the slightly more affordable side, there's Cambridge Audio's DacMagic, which at \$450 is nearly a full grand cheaper than the DAC-2, though it isn't as full-featured. The DacMagic cannot serve as a digital preamp, nor does it have remote capabilities. Furthermore, its USB input isn't as good as the one found on the DAC-2, but still, for \$450, it's a solid piece and a worthwhile investment, but the DAC-2 is clearly superior.

Cambridge Audio recently announced their DacMagic Plus. I have not yet tested this, though on paper it appears to stack up well against the DAC-2. The DacMagic Plus has a suggested retail price of \$650 and, like the DAC-2, it has the ability to connect to multiple digital and USB-enabled devices. It can also serve as a preamp in an all-digital system, though, like the DAC-2, the DacMagic Plus requires the use of an outboard device to accept streaming music files.

Lastly, there's Benchmark's DAC1 HDR, which competes favorably with the DAC-2, though it costs a bit more at \$1,895, despite being sold direct via the Internet. The Benchmark does have one up on the DAC-2 in that it offers a built-in headphone amp.

For more on these DACs and others like them, please visit Home Theater Review's Source Component Review page.
multi-channel music system without having to add additional amplifiers to the mix.

Conclusion

I hate products like the Wyred 4 Sound DAC-2, because they inevitably make my job difficult in that I have a hard time finding fault with them. The aforementioned praise that I've heaped upon the DAC-2 will no doubt provoke the ire of some readers, who will claim that I am somehow in Wyred 4 Sound's pocket - for no product, no matter how special, is without fault. True. The DAC-2 has its faults. It's not perfect. But unless you own a digital front end in league with the absolute best, I challenge you to tell me what the DAC-2's faults are. At \$1,499 retail, the DAC-2 is about as perfect a product as I've encountered, in that it does nothing, and I mean nothing, to harm the incoming signal - it only makes it better.

The truth of the matter is, if you're truly serious about getting the most from your digital music collection, in whatever format that may be, I can see no argument against buying the DAC-2, save maybe its price, which may be a bit much for some. If it is, I urge you to be patient and save your money, for purchasing anything less will undoubtedly grant you less. On the flip side, spending more may not result in more, at least not in the ways I'm confident those who drop tens of thousands of dollars on gear like DACs wish it would.

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Lastly, and this will be my final point (check out my Jerry Springer reference), I don't listen to a lot of CDs, mainly because I've since ripped my entire music collection to a bank of hard drives that I access through Ethernet cable-connected AppleTVs throughout my house. I also don't listen to a lot of CDs because I find the act of grabbing a disc, putting it in a tray, pressing play and being limited to the dozen or so tracks on it an antiquated idea. That being said, the DAC-2 has made CDs special again. While I may have reveled in the DAC-2's low-res music performance, it was its magic that it brought to bear upon CDs that impressed me most, so much so that I actually went out and bought a few new CDs - something I hadn't done in a long, long time. Highly recommended? You betcha.



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