

Wadia 121 Decoding Computer

Far Beyond Expectation

By Jeff Dorgay



FEATURE

With a number of stratospherically priced DACs on the market, it's exciting to see DACs priced between \$1,000 and \$1,500 offering so much performance. Reminiscent of the horsepower wars of the 1960s, it seems that every time a new standard of DAC performance is reached the bar is raised even higher. This time, Wadia—a company known for decades for its innovations in the realm of digital audio and, more recently, for its game-changing 170i iPod dock—delivers world-class sound at a very affordable price tag with its new 121 Decoding Computer.

Much like phonostages, you can purchase an outboard DAC for a couple hundred dollars and it's a great way to embrace computer audio. Outboard DACs can also serve as an upgrade to a budget CD transport. Jumping to the \$500 level brings more musicality and the ability to play high-res files, but going to the next level (the aforementioned \$1,000-to-\$1,500 range) is very exciting and, in the opinion of this reviewer, where the game gets seriously intriguing. Combining a computer source and a great \$1,500 DAC with your choice of high-performance playback software (like Pure Music, Amarra or one of the other current favorites) puts you in close proximity to what would have cost \$10,000 two years ago.

Having used Wadia gear as a personal reference for years, I was excited to hear the company's new S7i digital player during a recent visit to Sumiko's sound room in Berkeley, California. Immersed in the sound of the \$200,000-per-pair "The Sonus faber" speakers and two towers of six REL G-1 subwoofers, driven by Pass Labs monoblocks, I felt in familiar territory. Yet, when I

commented on how great the S7i sounded, I was instantly corrected. "That's the new 121," a Sumiko representative informed me. So, in the context of a major six-figure system, the 121 playing 16-bit/44.1-kHz files via a computer sounded *damn* good.

Imagine an S7i with no disc drawer, shrunk down to Barbie-Dream-House size. That's the 121—in general. It does use an external wall-wart supply, but that's the only place Wadia really scrimped on the design. I'm sure making a super-high-zoot external supply would wring more performance out of the 121, but then it would probably cost twice as much. (Mod-crazed audiophiles take note: Sumiko's John Paul Lizars made it very clear to me that the series 1 Wadia products would not be receiving upgraded external power supplies.)

Expensive power supply or not, the 121 is a serious DAC—or, as Wadia calls it, a digital decoding computer—which quickly becomes apparent when perusing its front and back panels. Rather than work with the same chipsets used in many other DACs, the 121 uses Wadia's patented DigiMaster circuitry to upsample the incoming digital data to a 32-bit, 1.40-MHz bitstream.



All inputs accommodate up to 24-bit/192-kHz data and the USB input is asynchronous.

Wadia also built a headphone amplifier into the 121, with a 1/4-inch jack on the front panel. Running the gamut of headphones at my disposal from Grado, AKG, Sennheiser and Audeze proved enjoyable. The 121 easily passes muster as a first-rate headphone amplifier. It also makes a perfect system for playing music from portable devices when paired with Wadia's 170i or 171i iPod dock. The 121's small footprint makes it an easy fit on a desktop next to your computer or on a nightstand for after hours listening.

But what really separates the 121 from the rest of the comparably priced herd is its 32-bit digital volume control, making this a true digital preamplifier, not just a DAC with an attenuator slapped on the end of the output stage. Wadia includes a full-function remote to complete the package.

The 121 is a perfect example of the dividends reaped when a company building top-shelf products applies its expertise to something at this level. "We incorporated as much functionality as we could into the 121," notes Wadia CEO John Schaffer. "We didn't want to just put a few DAC chips on the board and slap a Wadia badge on the front."

Back at the Mothership

It's tough to argue with the performance heard at Sumiko, as the system was one of the best I've heard, but it's always good to audition gear in familiar surroundings. Plugged into my main reference system, comparing it directly to the Wadia 381i that I've owned for some time now, reveals the difference between the big box and the 121.

While it is unfair to compare the 121 to the \$10K 381i, it's fascinating to witness how much performance Wadia *has* been able to squeeze into this diminutive box, which is the exact same size as the 170i and 171i iPod docks. *(continued)*

FEATURE



When listening closely to the finger snaps in Giant Giant Sand’s “Ready or Not” (from the *Tucson* album) it is clear that the 381i delivers greater amounts of air and a longer-lasting decay, but the 121 handles the tonality amazingly well, while also presenting a big soundstage. When listening casually to less-than-stellar program material, and not directly in the sweet spot, it’s easy to confuse the 121 for something much more expensive.

The 121 validates itself instantly when listening to how it delivers classical or acoustic music. Spinning Itzhak Perlman’s *Live in the Fiddler’s House* instantly reveals this DAC’s ability to convincingly render the violin. You can hear Perlman gently fingering the violin, with way more texture than you would expect at this price point and with ample air and decay. It’s easy to forget what you are missing until switching to the 381i. Yet, once switching back from the big-bucks DAC, the 121 continues to satisfy. And this is in the context of a

six-figure system, made up of all Audio Research reference components.

Placing the 121 in a system comprised of appropriately priced components—a PrimaLuna ProLogue Premium integrated amplifier and a pair of Vienna Acoustics Mozart speakers—is the right move. High-resolution digital files via a MacBook Air and Amarra software meet or exceed the musicality delivered by similarly priced turntables on hand.

Blasting through a series of Blue Note XRCDs uncovers the same level of tonality: Drums have the proper amount of attack and the standup bass is weighty as well as defined. Wynton Kelly’s piano on Hank Mobley’s *Soul Station* floats in between the speakers, defined in it’s own space. It’s not so much the jump between the \$10K DAC and the 121 that’s tough to swallow; it’s going back to a budget DAC after listening to the 121 that proves there’s just no music in the inexpensive stuff—no life, no air, etc. *(continued)*



Compare and Contrast

The fairest comparisons for the 121 are the amazing Rega DAC for \$995 and the Benchmark DAC1 USB at \$1,195, especially given that the Benchmark can be used as a preamplifier. It features a volume control (albeit an analog volume control, where the 121's volume control operates in the digital domain) and headphone output. All three DACs can handle 24-bit/192-kHz files. Although neither DAC adds romance or sterility to the sound, the Rega has a slightly warmer, more romantic sound, while the Benchmark is straight-up—it's a great "just the facts, ma'am" kind of DAC.

The 121 is closer to the Benchmark in tonality than the Rega, and each will appeal to a certain listener, but the Wadia's edge is three-fold: It has the widest dynamic range, more low-level-detail retrieval and more weight in the LF spectrum than the other two—again, very similar to my 381i. Having lived with Wadia digital players for many years, I can tell you that the big, dynamic, weighty feel that Wadia DACs produce is easily recognizable—which is also the case with the 121.

In terms of connectivity, the TOSLINK input provided a slightly less-resolving presentation than the others, though it was still impressive and handy, should you have an older CD player that you would like to perk up. A vintage Sony ES player, only having a TOSLINK output, showed a marked improvement via the digital output and the 121. Comparing USB, SPDIF and the AES/EBU connections via 24/192 tracks, courtesy of the Aurenander S10 server, revealed no anomalies between connections. This plethora of inputs makes it easy to switch

between a transport, music server and digital files on an iPod/iPhone via a Wadia dock—which makes the 121 perfect for the digital music lover with multiple sources.

All You Need

As great as the 121 performs in DAC mode, it's the perfect hub for your music system. The DigiMaster volume control is effective and sonically transparent, all the way down to the lowest range. If there was some degradation of the original signal, we weren't hearing it when I assembled the troops for a listening session.

Thanks to TOSLINK, BNC, RCA, AES/EBU and an asynchronous USB input, there are no limitations to what the 121 can use as a source. We achieved excellent results using a Mac mini and MacBook Air, both running the latest version of Amarra; Wadia's own 171i dock with an iPhone 4S; and an old Pioneer CD player as a transport. The only thing keeping the 121 from appealing universally is its lack of a single analog input, which Benchmark incorporated into its highest-end version of the DAC1 PRE. Including a single analog input gives someone wanting to integrate analog into their system the option to use the 121 as a full-function preamplifier. For now, the 121 performs this task perfectly in an all-digital system.

The 121 does have fully balanced analog outputs that handle long cable lengths admirably. The 121 has no problem with a 20-foot length of AVID SCT cable running from the rack to a bevy of awaiting power amplifiers. Even terminating the amplifier end of the cable, with a Cardas balanced-to-RCA adaptor, was no problem. *(continued)*



We paired the 121 with at least a dozen amplifiers, including tube, solid-state and class-D, and they all work equally well in terms of frequency range and drive. However, this tube-lover favors the 121 with a number of low-power vacuum-tube amplifiers when using it strictly as a preamplifier. Personal bias admitted, a touch of tubeyness goes a long way with digital sources.

Paired with the 121, the updated Conrad-Johnson MV50 tube power amplifier and Dynaudio Confidence C1 II speakers make for a fantastic, all-digital system, with more than enough resolution to easily discern between Red Book and high-resolution digital files, and compare various Amarra settings. The 121 was no slouch driving the mighty Burmester 911 power amplifier directly; though, at this level, I did prefer having an active preamplifier in the signal path. The bottom line: With the 121, we have a \$1,295 DAC that can hang with some pretty expensive company.

This is why we've determined that the Wadia 121 is more than worthy of one of our Exceptional Value Awards for 2012. Whether seeking a high performance DAC or a fully functioning digital preamplifier to build your system around, your search is over.

The Wadia 121
MSRP: \$1,295
www.wadia.com