YBA Design WD202 Digital-to-Analog Converter

Written by Doug Blackburn



In 1981, after working at Goldmund, Pierre Lurné, and Vecteur, Yves-Bernard Andre founded YBA, a French company dedicated to making high-quality audiophile products. There are three YBA product lines -- Design, Passion, and Signature -- and the WD202 DAC is a member of the Design series.

Entry-level DACs with USB capability generally sell for \$200-\$500 USD. The WD202's price of \$879 puts it a step higher than that, and allows YBA to equip it with features not found in more basic DACs: a headphone jack, variable or fixed volume levels for the headphone and line-level outputs, and switching among as many as four digital inputs.

The WD202's front panel has a 1/4" headphone jack, four blue source LEDs, an IR receiver window, and buttons for source selection, volume up/down, and power. The source LEDs also indicate the volume level, if you're using the WD202's preamp or headphone function. Volume is adjusted in the digital domain, leaving the potential for loss of resolution as the level is decreased -- but in that case you lose resolution to ambient noise and dynamic-range compression anyway. Presumably, the volume control happens within 24-bit space, where's there's plenty of extra resolution for volume adjustments to be made in the digital domain without audible compromises. The source button cycles through the four inputs: coax, USB, optical (TosLink), and AES/EBU.

The rear panel has a 15-amp IEC power-cord inlet, the four input connectors just listed, a coax (RCA) digital output, RCA analog stereo outputs, and XLR balanced analog stereo outputs. The WD202 displays no information about the signal format it's receiving, so knowing your input bit depth and sample rate is handy when you're setting up a computer and software for music playback. However, it's possible to set up everything correctly without this information. With the input switching and variable volume control, the WD202 could function as a preamp in an all-digital system; it's quite versatile.



The chassis is made of thick aluminum plate, giving the WD202 a feeling of substance and weight. The corners and edges are extremely crisp. While the WD202 is smaller than the typical full-size preamp or disc player, it's

relatively large for a DAC at 12.6"W x 2.4"H x 11"D. The exterior is anodized in black, except for a single line of mirror-finish silver trim near the bottom of the front panel. The bottom edges of the front and side panels are cut away to leave only three points where the chassis touches the shelf. A heavy remote control of aluminum is provided.

Inside, a Texas Instruments PCM1796 DAC chip supports bit depths of 16, 18, 20, or 24, at all common sampling frequencies from 32 to 192kHz. The WD202 upsamples and interpolates every input signal to 24-bit/192kHz before converting it to analog. YBA says the WD202 incorporates ultra-low-jitter features and high-precision reclocking.

This was my first experience with a USB DAC after a lot of time spent playing digital files via Ethernet connections -- and, of course, decades of listening to discs, disc players, DACs, and transports. It took some study to get the best out of a laptop computer running Windows 7. I used ASIO with foobar2000 software (free download), or WASAPI-Event Style with Media Center 15 (\$50 from J River, and generally accepted as the best-sounding Windows playback software). I would have used WASAPI with foobar2000, but it was not implemented correctly in the latest version available during the review period, so I was limited to the second-best ASIO output mode when using foobar2000. I never experienced any interruptions, delays, or skips with either of these combinations of software with the WD202, so long as Exclusive mode was selected in the WD202's audio device profile, which is accessible only when the WD202 is connected to a computer. Sound quality via the USB port matched the playback of the physical discs, though I sometimes thought USB sounded better -- more direct and pure. The USB port was the primary input used during the review period, though I occasionally used coax from a disc transport to confirm that sound qualities of the S/PDIF and USB inputs were very similar.

Using a computer opens a new world of high-resolution files that can be played through many products. I say "many" because some have USB inputs that are limited: even if the DAC is a 24-bit/192kHz device, its USB port may not accept sample rates of 192, 176.4, 96, or even 88.2kHz, or any more than 16 bits. The WD202 is one of these: via USB, it won't accept any resolution higher than 16 bits and 48kHz. Feeding it a 24-bit file or a sample rate higher than 48kHz produces only a message of "incompatible hardware" and a refusal to accept the data. The Wavelength Proton USB DAC (see "Comparison") accepts everything up to 24 bits and sample rates up to 96kHz, using the same software and setup options I used with the WD202. Does that mean there's no way to get 88.2kHz or higher, and 20- or 24-bit data, into the WD202? No. The digital coax and optical (TosLink) interfaces use S/PDIF protocol to move data. S/PDIF used to be a slow interface that would accept no more than 16-bit/48kHz stereo, or lossily compressed multichannel Dolby Digital or DTS. Over the years, S/PDIF has stayed alive by, with little fanfare, continually upping the bandwidth. If you have a newish computer that has coax or TosLink connections, you should be able to send hi-rez music files via these. My Toshiba laptop lacks those outputs, however.

Playing 16/44.1 CD tracks via USB produced a sound that was commendably if not perfectly neutral. The highs were silky smooth, with no grain or roughness or anything that sounded remotely "digital." Using a disc transport to play, via coax out, a 24/96 recording of Mussorgsky's *Pictures at an Exhibition* and Holst's *The Planets*, performed by the St. Louis Symphony (CD, Classic DAD1027), ran the gamut from pleasingly pretty to menacingly aggressive, just as required by these two works. There was lightness and clarity for the pretty bits, dynamic power and drive for the more menacing moments. There was nothing in the timing and pace to cause me to think the WD202 sounded slow, fast, or anything other than ideal. There was a light frosting of tape hiss from the mid-'70s Vox Turnabout analog master tapes, but it was neither emphasized nor glossed over. The xylophone and tubular bell were rich and resonant, leaning just slightly toward the rich, romantic sound preferred by many listeners. Little variations in the quaver of the women's chorus in *Neptune, the Mystic*, from *The Planets*, were clearly there, and could be heard almost on the level of individual voices (if you want to listen to a chorus that way). Alternatively, I could take a mental step back and take in the overall effect of the mystical chorus without focusing on the details. While the WD202 definitely sounded neutral, it leaned just a tiny bit toward the warm, romantic side. Many people like that sort of sound, and it doesn't hurt the enjoyment of music unless it becomes too obvious -- which wasn't the case here.

The piano and strings that open the title track of Smashing Pumpkins' *Mellon Collie and the Infinite Sadness* (CD, Virgin 40861) are decidedly lo-fi compared to typical audiophile recordings. But the flat, opaque sound is

not fluffed up into an unlistenable mess, as can happen with some products immortalized for their warmth or golden tone. With the WD202 I heard what had been committed to the disc -- in this case, that characteristic flat, opaque, lo-fi sound -- but the music shone right through, despite the lo-fi character of the recording. Track 2, "Tonight Tonight," is a masterpiece of compression and creativity that can sound a mess in all too many systems with "high-end" pretensions. Here, you get that thick, dirty, compressed sound, but the music soars anyway, transcending the questionable recording techniques and ultimate sound quality. That's one hallmark of a musical component worthy of being in a music-lover's system, and it's what you get from the WD202. Nothing was hidden or glossed over any more than anything was overemphasized or overdone. The WD202 nailed the musicality without creating problems caused by overt colorations or distortions.

Bypassing my Belles preamp and using the variable-volume analog outputs of the WD202 connected directly to a stereo amplifier produced a slightly more immediate sound. Changing the volume level with the internal digital volume control made no obvious change in sound quality or resolution -- the overall neutrality was just as steadfast as it was through the fixed line-level outputs. Used as a preamp, the WD202 produced a cleanly detailed sound with just a bit less body and heft than my reference preamp and the fixed line-level outputs. Other amps could be driven differently by the WD202; you really need to try before you buy.

Comparison

A broken-in Wavelength Proton 24/96 DAC arrived near the end of the review period. The Proton's \$1000 price, tiny size, and few features made it at first seem outclassed by the YBA WD202. It has no AC power supply or power cord, but operates on an internal lithium-ion battery. It has only a USB input, variable-level analog stereo outputs (RCA only), and a 1/8" headphone jack. The Proton DAC's output levels were 10dB lower than the WD202's, so I used the 315Hz test tone on the *XLO/Reference Recordings Test & Burn-In CD* and my preamp's stepless analog volume control to precisely match the DACs' levels.

On first hearing, the two DACs sounded tonally similar. But after just a couple of listens to "One Night in Paris" ("Une Nuit a Paris"), from 10cc's *The Definitive Collection* (CD, Universal 069 548-2), it was clear that the Proton produced more detail, and more of a sense of three-dimensional space. The opening street sounds were alive in an apparently real space through the Proton, while the WD202 presented the street scene with little sense of depth. The YBA's slightly "prettier" sound worked well with this track; the Proton sounded more objective, like an extremely lucid playback of the original events. The Proton was better for zooming in on fine vocal or instrumental details, when I wanted to listen that way.

When I listened to "Hotel California," from the live Eagles album *Hell Freezes Over* (CD, JVC XRCD2 CJVC4908362), the two DACs' tonalities were, again, very similar. There was a difference in the character of the throbbing kick drums: the Proton's reproduction of the frequency spectrum was more tightly focused, while the YBA sounded as if it was producing a bit more of the lowest frequencies of each kick. The Proton had a little more sharpness in the attack of acoustic guitar strings, while the YBA had just slightly softer transient attacks and a slightly prettier tone. There's no real depth to this recording, and neither DAC injected any sense of space that wasn't already there: the reproduced sound remained true to the original.

"Bein' Green," from Daboa's *From the Gekko* (CD, Triple Earth trecd115), is loaded with space, despite being a studio recording with lots of great synthesizer work. It has many pretty sounds, including the rich voice of Maria Marquez. This track was a surprise: The YBA's slight beautification of most music should have been a great mach for this lush track, but it wasn't. In fact, the entire track sounded kind of ordinary through the WD202. Not that the sound was bad, there just wasn't anything that sucked me in the way "Bein' Green" usually does. But with the Proton DAC, the huge sense of space returned -- every sound was clean, clear, and precisely located in the soundscape. The attractive, lush sound was just as it should be, no more, no less.

The DACs' headphone outputs shared the basic characteristics of their analog, line-level outputs. The Proton produced far-left and far-right images that seemed to originate outside my head. Centrally placed sounds, though, maintained headphones' characteristic middle-of-the-head perspective. The WD202's far-left and far-right sounds, however, remained inside my head as well. The Proton had a bit more fine detail in complex sounds, and a quieter noise floor. The WD202 produced a musically enjoyable sound, though it didn't as clearly

reveal fine differences in the tones of voices or strings. For example, Dee Carstensen's amazing cover of Jimi Hendrix's "Angel," from her *Regarding the Soul* (CD, Exit Nine 9001 2), with Carstensen singing and accompanying herself on harp, revealed more subtle changes in vocal intonation. The Proton did a better job of revealing details, making it very clear whether a string was plucked closer to its center, for a fuller, richer, more resonant tone; or nearer the end of the string, for a leaner, more percussive sound. This shouldn't be taken as a condemnation of the WD202's headphone output, which in fact was quite enjoyable, primarily for its consistently musical presentation -- either product will satisfy the casual user. But those more serious about headphone sound quality will find the Proton's extra cost easily justified. Both DACs were capable of driving 62-ohm AKG K702 headphones louder than I'd ever want to listen to them.

Conclusion

While not perfect in every way, the YBA Design WD202 DAC is a good performer in a growing group of digital-toanalog converters in the \$800-\$1000 range. Its sound was articulate, enjoyable, and musical, with a slight bias toward a little extra romance, beauty, and warmth, and its input switching and variable volume control mean that it can be used as a DAC-preamp in an all-digital system. If you rely on USB to feed your DAC with 24-bit or higher-than-48kHz files, the WD202 isn't the DAC you want -- but if you can send hi-rez files via digital coaxial or TosLink, the YBA will work fine with your downloads. And if you need all its features, the WD202's \$879 price makes it well worth considering.

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Associated Equipment

- Speakers -- Vandersteen 3A Signature, Vandersteen 2Wq subwoofers (2)
- Amplifier -- Belles/Power Modules 350A Reference, Jaton Operetta AV-AP2300AXU
- Preamplifier -- Belles/Power Modules 28A
- Sources -- Modified Pioneer DV-525 disc transport; Perpetual Technologies P1-A/P3-A upconversiondejitter-DAC combo with Monolithic power supply; Roksan Xerxes turntable, rewired SME-V tonearm, Cardas Heart low-output MC cartridge
- Speaker cables -- Audience Au24 e
- Interconnects -- Audience Au24 e, Nordost Quattro Fil
- Power cords -- Audience powerChord e, Audience Au24 e
- Power conditioner -- ExactPower EP15A, Audience aR6-TS
- Computer (music playback) -- Toshiba Qosmio F45 Laptop running Windows 7
- Headphones -- AKG K702

YBA Design WD202 Digital-to-Analog Converter Price: \$879 USD. Warranty: Three years parts and labor (service and repairs provided by Audio Plus Services).

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