

M2Tech Young Digital-to-Audio Converter

Digital-to-analog converters that will play computer audio files through USB with bit depths of 24 and sample rates of 192kHz are now fairly common; however, some recordings are mastered at even higher sampling rates: 352.8 and 384kHz, and with a 32-bit word length. Although I know of no commercially available recordings at 32/352.8 or 32/384, I can envision a numbers race that would make them available. The Norwegian recording company 2L has made some sample 24-bit/352.8kHz files available for download, if you want to hear what they sound like. "But," you may ask, "how could I play those files? My DAC can play only up to 24/192!" One answer is the M2Tech Young DAC.



The Young DAC (\$1800 USD) is made in Italy by M2Tech and imported by TEAC's Esoteric division. The first M2Tech product I heard of was their hiFace USB-to-S/PDIF converter, one of the first devices that allowed a computer to play files up to 24/192 from its USB output jack by converting the signal to S/PDIF. Because the S/PDIF inputs of most recent DACs can handle 24/192 files, using a converter was one way to play high-resolution files. And at \$150 (\$180 with BNC output jack), the hiFace's price was certainly right. M2Tech then introduced an upgrade, the hiFace Evo (\$479), which has a separate power supply and more output options than the basic model's S/PDIF. The next logical step up was a complete DAC with built-in hi-res USB capability: the Young DAC.

The Young DAC measures 7.9"W x 2"H x 7.9"D -- just a bit smaller than a Benchmark DAC1 -- and a bit bigger than Apple's new Mac Mini computer (7.7"W x 7.7"D), which fits neatly atop the Young. The Young's case of thick, silvery brushed aluminum should have no trouble supporting the silver Mac Mini's 2.7 pounds, and I suspect that's no coincidence. The Young itself weighs only 2.2 pounds and is powered by a wall wart.

With two S/PDIF inputs (RCA and BNC jacks), one AES/EBU (XLR jack), one optical S/PDIF (TosLink), and one Type B USB jack, the Young can serve as a complete digital switching center for your audio system, though its lack of a remote control makes switching a manual operation -- not a problem if you have only one digital source. The asynchronous USB input supports files with resolutions up to 32-bit/384kHz, the S/PDIF coaxial and AES/EBU inputs support up to 24/192, and the optical S/PDIF input supports up to 24/96. Analog output is available on two RCA jacks (there's no balanced output). You must install computer drivers to support the high-speed USB input; Windows and OS X drivers are available.

Refreshingly, the Young's front panel is not the usual slab of thick aluminum; rather, it's a convex sheet of perforated black metal. Behind the panel is a large matrix of LEDs that displays first the input selected, then the sampling rate of the file playing through that input. With characters 1.25" high, this is one display that's easy to read from across the room -- something that's all too rare. Two silver pushbuttons flank the display. The left button toggles the Young between standby and on, while the right button cycles through the inputs.

M2Tech's website tells us that "A high performance oversampling filter, custom-made on a programmable logic device (FPGA) implements minimum-phase filters optimized for sound quality which allow for a very low noise floor." While I would like to have been able to hear the Young without oversampling, that feature doesn't appear to be user-adjustable.



Setting up

The Young slid easily into my equipment rack under my Auraliti PK100 file player, which I connected to the Young with a Wireworld Gold Starlight 6 S/PDIF cable. Into the Young's USB input went an AudioQuest Diamond USB cable, connected to my laptop computer server. Purist Audio Design Venustas unbalanced interconnects connected the Young to my preamp. I plugged the Young's power wart directly into the wall. A paragraph in the manual acknowledges that a better power supply could produce better sound, but cautions that using a

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nonstandard power supply will void the Young's warranty. That's not unreasonable, but it makes me wonder why M2Tech even brings up the subject of trying a better power supply.

The Young isn't shipped with the manual, or the Mac or Windows drivers (a driver is needed in order to use Windows to play files with sampling frequencies higher than 96kHz). I visited the [M2Tech website](#) and downloaded the manual and the latest the drivers for 64-bit Windows 7, which I installed on my laptop computer/server. After installing the drivers, I launched my music-server program, foobar2000 v.1.1.1.7, and set the output device as the WASAPI engine for the Young DAC. The manual offers good suggestions for installing the drivers and setting up some playback software to use the Young.

Because the Young was young -- er, *new* -- I had to break it in. M2Tech recommends at least 200 hours of break-in, so I used the DAC's USB input for that long. Then I broke in the S/PDIF input for 150 hours. I know that some audiophiles deny that break-in makes an audible difference, but if the manufacturer recommends it, a reviewer who omits this admittedly tedious process won't necessarily know what the component might sound like at its very best.

The manual cautions that the Young should be placed where it will have good ventilation. I set it on a shelf in my equipment rack and placed the Auraliti PK100 file player atop its sturdy case. Neither device has any moving parts, so neither produces any vibration that might smear the sound. And the Young ran entirely cool.

To evaluate the highest sample rates the Young could handle, I downloaded three 24/352.8 WAV files from 2L's website. Each file was one movement of a classical work from the 2L catalog and about 1GB in size; downloading each via my slow Internet connection took nearly 30 minutes. I then copied the files to my laptop computer/server. Even with a USB 2.0 connection, the copying took quite some time.

Sound

Unless otherwise mentioned, the Young's USB and S/PDIF inputs produced essentially identical sounds. The M2Tech's frequency balance was pretty neutral. The drum in "Folia Rodrigo Martinez," from Jordi Savall's *La Folia 1490-1701* (16/44.1 FLAC, Alia Vox), reaches down to the mid-20Hz area; it was audible but not especially powerful. I could hear upper-bass harmonics, but many lower frequencies weren't audible. The USB input's bass was more powerful, but only by a smidgen. On the other hand, "The Panther," from Jennifer Warnes' *The Well* (CD, SDR SD8960), displayed ample high-frequency content; it sounded neither edgy nor rolled off through the S/PDIF or USB input. I was able to get more high-frequency information by switching to a Crystal Cable Piccolo interconnect, though then the bass was less prominent.

The midrange was gorgeous. When I cued up my new favorite Eva Cassidy album, *Simply Eva* (16/44.1 FLAC, Blix Street/HDtracks), I heard fully developed harmonics and detail -- though not hi-rez, this is a beautiful "Red Book" recording. I thought the S/PDIF input sounded just perceptibly more open; the USB input sounded just a smidge glassy in comparison. The differences were at the threshold of audibility. Does that mean that the S/PDIF input sounded better? Not really; keep in mind that I was using different sources and cables, which could have been the reason for any sonic differences.

When I switched to *Miserere*, a Tallis Scholars disc of works by Allegri (24/96 FLAC, Gimell), the near-holographic soundstage I normally hear from this recording was incomplete. The sound was spacious, and there were some cues as to the depth of the soundstage, but this recording's precisely defined soundstage was just not there.

Orchestral music was full and dynamic. When I played Iván Fischer and the Budapest Festival Orchestra's recording of Dvorák's Symphony No.7 (24/192 FLAC, Channel Classics/Linn Records), I heard the accustomed orchestral sonorities, with plenty of subtle dynamic tracking.

Since the USB input handles sampling rates up to 384kHz, I made a point of trying some of 2L's 24/352.8 files: the *Maestoso* of Beethoven's Piano Sonata No.32, performed by Tor Espen Aspaas; a movement from Mozart's Violin Concerto No.4, K.218, performed by Marianne Thorsen, accompanied by the Trondheimsolistene under the leadership of Øyvind Gimse; and a recitative and aria from Vivaldi's Cantata RV 679, "Che giova il sospirar, povero core," performed by soprano Tone Wik accompanied by the Barokkanerne. I compared the 192 and 352.8kHz versions of each selection. (The 192kHz files were in FLAC format, the 352.8kHz in WAV.) Although I sometimes thought I could hear more openness and more accurate leading-edge transients with the higher sampling rate, I doubt I'd have been able to distinguish between the two had the Young not displayed the sampling rates; the two were *very* close, if not identical. Still, my inner geek was impressed when the Young's display read "352."

Comparison

My [Audio Research DAC8](#) cost \$4995, so comparing it to the \$1800 Young may seem unfair. Still, it was interesting to see how close the M2Tech came to the AR. It had been some time since I'd listened to the DAC8, and I looked forward to hearing it again. I wasn't disappointed: It produced a sweeter, more relaxed sound than the M2Tech, with more tonal color and detail. I used the ARC's superior-sounding USB input for comparison.

Playing Allegri's *Miserere*, the DAC8 displayed the vividly precise locations in space that I remembered from this disc. Each singer occupied his or her own space, and the solo group was clearly placed far back in the recording space. Other recordings I played just for fun also showed more precisely defined spatial location with the DAC8, and the bass drum in "Folia Rodrigo Martinez" was reproduced with considerably deeper extension and more impact. Even with my subwoofers disconnected, it was easy to hear that the Young had rolled off the bass somewhat. I wondered if the difference in interconnects had caused the difference in bass response, but then I remembered that my Purist Audio Design Venustas interconnects have sterling bass response. The DAC8's midrange also had more clarity and detail.

You may well think, "Big deal. A DAC costing nearly three times as much as the Young doggone well *should* sound better!" A fairer match might be with the [Wyred 4 Sound DAC-2](#) (\$1500), which I reviewed in our December 2010 edition. Unfortunately, my review sample had long p

since been sent back to the factory, and since then my aural memories of it have been overwritten by the sounds of several other DACs (including the revelatory MSB Signature DAC IV). However, the DAC-2 has the advantage of having a physical volume control and a remote control that allows it to be used as a system volume control, eliminating the need for a separate preamp. And it has both balanced and unbalanced outputs, which might be important if your power amp has balanced inputs.

Summary

A couple of years ago, almost *no* DAC was capable of playing high-resolution computer audio files through a USB input. Today, a good selection of them can, and the M2Tech Young is a worthy entry at its price. Unlike most of its competition, it can play up to 32-bit/384kHz files, which should future-proof its design. Though *you* may find the sound of super-hi-rez recordings superior to 24/192 files, I can't say I heard any improvement. Of more interest to me was how the Young sounded playing the computer audio files available today: rips of CDs and hi-rez downloads. With those, it sounded delightful, with a smooth response, beautiful tonal reproduction, and lots of detail. And its importation by TEAC should ensure good support in the US. Highly recommended.

. . . *Vade Forrester*

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Associated Equipment

- **Speakers** -- Affirm Audio Lumination speakers, JL Audio Fathom f110 subwoofers
- **Amplifiers** -- Audio Research VS115, Atma-Sphere S-30 Mk.III, Art Audio PX-25
- **Preamplifiers** -- Audio Research PH5, Audio Research LS26
- **Sources** -- Linn LP12 turntable on custom isolation base, Graham Engineering 2.2 tonearm, van den Hul Platinum Frog cartridge; Meridian 500 CD transport, Sony SCD-XA5400ES SACD player; Hewlett-Packard dv7-3188cl laptop computer running 64-bit Windows 7 Home Premium and foobar2000 music server v.1.1.1.7; Auraliti PK100 music player; all servers and digital players connected to a Benchmark DAC1 Pre DAC or Audio Research DAC8 D/A converter
- **Interconnects** -- Crystal Cable Piccolo unbalanced interconnects, TG Audio High Purity Revised interconnects, Clarity Cables Organic interconnects, Audience Au24 e balanced interconnects, Purist Audio Design Venustas unbalanced interconnects
- **Speaker cables** -- Purist Audio Design Venustas speaker cables, Blue Marble Audio speaker cables, Crystal Cables CrystalSpeak Micro speaker cables, Audience Au24 e speaker cables, Clarity Cables Organic loudspeaker cables
- **Power cords** -- Purist Audio Design Venustas power cords, Blue Marble Audio Blue Lightning power cords, Clarity Cables Vortex power cords, Audience powerChord e power cords
- **Digital** -- Wireworld Starlight 5² USB cable, Gold Starlight 6 S/PDIF cable, Gold Starlight 5 AES/EBU cable; AudioQuest Diamond USB
- **Power conditioners and distribution** -- Audience aR6-T, IsoTek EVO3 Sirius

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Price: \$1800 USD.

Warranty: Two years parts and labor (three years with return of product registration form).

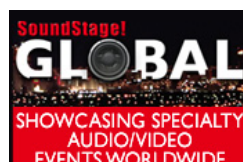
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