Simaudio Moon 280D Streaming DAC Review

Simaudio, an audio manufacturer located in Quebec, Canada is well-known for both the build quality of its products and the whopping ten-year warranty it offers. Many of the company's wares are decidedly high-end—the 230-pound Moon 888 monoblock amplifier ($118,888 per pair), which is rated to output a massive 888 watts at 8 ohms and double that down to 1,776 watts at 4 ohms, for example. In this review, however, we're sizing up Simaudio's Moon 280D DAC, which features its MiND 2 (Moon intelligent Network Device) wireless-capable music streaming module. With a $3,000 price tag, the 280D falls squarely within the mid-level price tier for the streaming DAC category. Given the intense competition in that space, I was curious to see what, if anything, would cause the 280D to stand out from the pack.

Features
The Moon 280D is not a completely new product for the company. It was first introduced in 2015 and has been continually updated, with the MiND 2 module added in 2018. The most recent updates bring Spotify Connect and Apple AirPlay 2 support. A fully asynchronous DAC, the Moon 280D's ESS Technology Sabre ES9018K2M chipset is capable of processing PCM signals up to 32-bit/384kHz (including DXD) and native DSD64, double DSD (DSD128), and quad DSD (DSD256) signals, which are supported only through the USB and network (LAN/Ethernet or Wi-Fi) inputs. The 280D also fully unfolds Master Quality Authenticated (MQA) files arriving via its network inputs.

Signals streamed over a wired or wireless connection from local UPnP servers and internet-based music services are handled by the MiND 2 module, which is controlled via the Moon MiND 2 iOS or Android controller app. A separate module in the Moon 280D handles aptX Bluetooth wireless streaming.

The MiND 2 module is Roon Ready and supports Tidal, Deezer, Qobuz, and internet radio streaming, while Spotify is supported via its native app and the Spotify Connect function. Apple AirPlay 2 allows other music services to be streamed via their native apps. Lastly, the MiND 2 module permits synchronized multi-room playback on multiple MiND 2-equipped devices, with zones grouped together or run separately. On the analog side, the Moon 280D features fully balanced differential circuitry and four-layer printed circuit boards with pure copper tracings. Careful attention has been paid to the 280D's circuitry layout. For example, the clock has been closely positioned to the DAC chipset, while separate voltage regulators are used for the digital and analog sections.

The Moon 280D's front panel consists of a 1/4-inch-thick aluminum plate flanked by a pair of side "cheeks." Color options include black, silver, or two-tone (e.g., a black center piece with silver cheeks). Simaudio's treble clef logo is positioned in the middle, above a blue LED power indicator and a standby button. On the left side are buttons for Bluetooth activation and input selection, along with a group of red LED indicators that show the active input, while the right side holds a second group of red LED indicators showing PCM sampling and DSD data rates.

There's no front-panel display, as Simaudio feels the listener will typically be sitting a good distance away and have album art and track information available via the Moon MiND controller app. There's also no volume control, though both features can be found on Simaudio's upper-level streamers, including the 280D's big brother, the $5,900 Moon 390 network streamer/preamplifier.

The Moon 280D's rear panel features a generous selection of digital inputs: one AES-EBU, two each coaxial and optical digital, and one USB-type-B for a direct computer connection. Analog outputs

include stereo RCA and balanced XLR. Videophiles and gamers will note the absence of HDMI ports, which is a feature reserved for Simaudio's more expensive components.

Rounding out the rear panel are a Wi-Fi antenna connector, buttons to restore the 280D's factory settings and force a manual software update, and an Ethernet port. There's also an RS-232 port for integration with advanced home control systems, proprietary SimLink controller ports for automatic syncing with other Moon components, IR in/out ports, and an IEC power connector and master on/off switch.

A stylish plastic remote control operates both the 280D and other Moon components and includes buttons to change inputs, mute volume, and select standby mode. Also in the box was a 1/8-inch mini-jack terminated SimLink cable, a Wi-Fi antenna for the MiND 2 streaming module, a printed owner's manual, and a voucher for a free DSD music file sampler from the Native DSD website.

Simaudio regularly updates the Moon 280D, so owners have no need to fear it will become a digital boat anchor in the future. Depending on the nature, upgrades are performed either by the customer over a network connection, by a Simaudio dealer, or on-site at the company' factory.

Setup
The Moon 280D's owner's manual states that it features a "rigid" chassis construction to minimize the effect of external vibrations. Whoever wrote that wasn't at all kidding. Examining the review sample, the aluminum chassis panels were unexpectedly thick, and it seemed to weigh more than its advertised 16 pounds. It's also undergirded by Simaudio's proprietary feet, which are constructed of aluminum, plastic, and foam.

Pawing the Moon 280D, I also noticed that its front panel's cheeks, which at first appeared to be made of aluminum like the rest of the chassis, were in fact made of a polycarbonate plastic. But considering the 280D's price, I can't blame Simaudio for cutting a corner or two. Plastic cheeks or not, how the company produces a component of such high build quality in its Canadian factory for $3,000 is a mystery to me.

Preparing the Moon 280D for blastoff, I downloaded the USB HD DSD driver to my Microsoft Windows-based laptop. (This step is unnecessary if connecting a Mac computer and, in any event, is only required to use the 280D's USB input.) I also downloaded the robust and well-designed Moon MiND controller app to my iPhone and iPad mini.
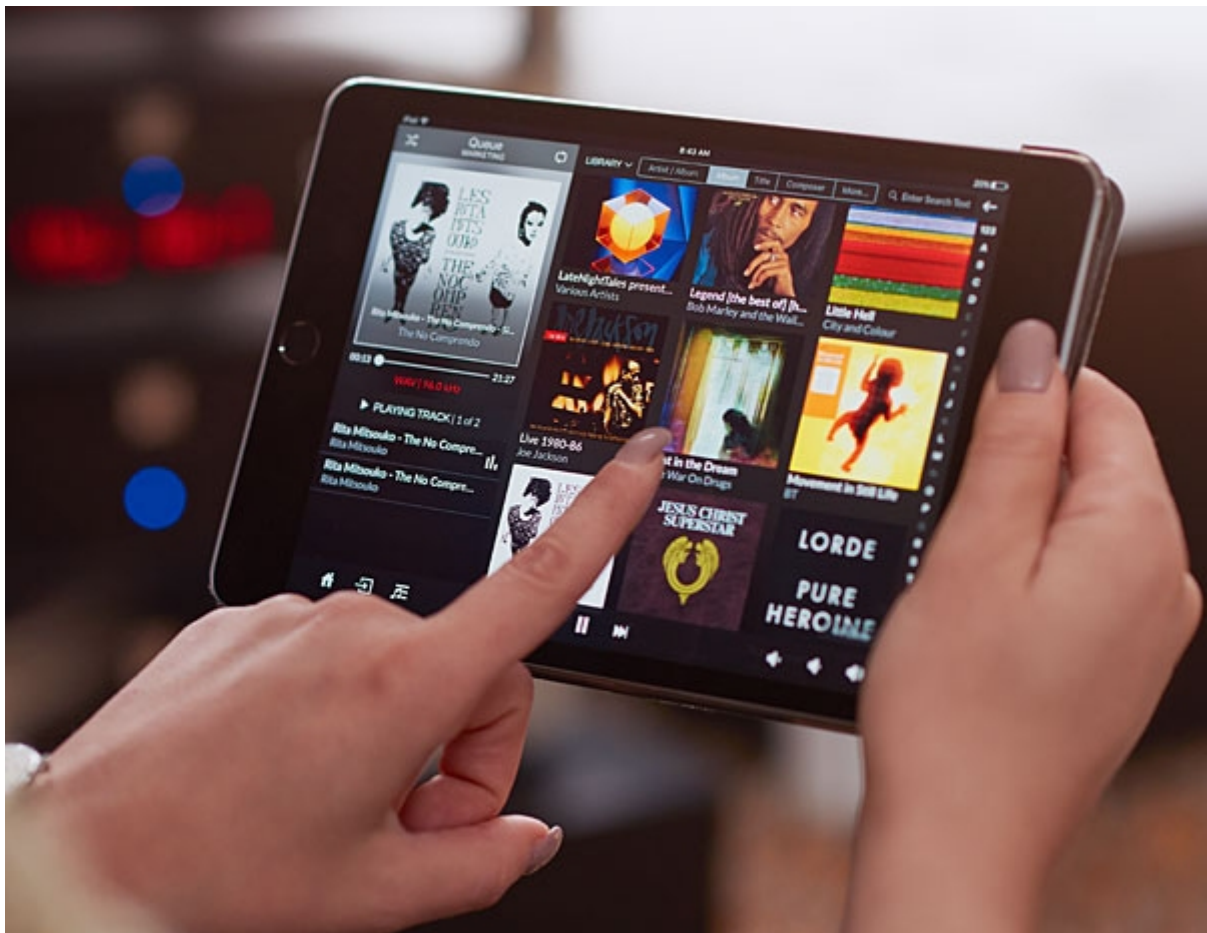
Next, I screwed in the 280D's Wi-Fi antenna and connected an Ethernet cable to it from my router. I then ran a pair of interconnect cables from the 280D to System Audio Saxo 5 powered bookshelf speakers, which in turn passed the audio signal to a JL Audio Dominion d110 subwoofer. (Simaudio recommends using the 280D's balanced XLR outputs, but I used single-ended RCA since that's the only connection type the Saxo 5 speakers accept.) From there, I powered up the Moon 280D and opened the Moon MiND controller app, which among other things, asked me to enter my Wi-Fi password and Qobuz account info. Overall, I encountered no setup issues and the 280D operated flawlessly during my time with it.

While I briefly tried each of the Moon 280D's inputs, I primarily used the USB port to play digital music files stored on my laptop, the network connection to stream Qobuz an internet radio stations, and a coaxial input for a Sony UBP-X800 Blu-ray disc player (set up to convert movie soundtracks to 2.0 PCM format).

Performance
Alternating between the Moon 280D's USB and network inputs, I started my listening with "Willow Weeps for Me," from Ben Webster Plays Ballads (24-bit/96kHz FLAC, Qobuz). Webster's tenor saxophone came across as rich, warm, and mellow. Dynamic swings also sounded smooth and liquid rather than coarse and stepped.

Listening next to "Dream Gypsy," from Bill Evans and Jim Hall's Undercurrent (16/44.1 FLAC), Evans' piano notes displayed excellent weight and density. Similarly, on "Oxygene 2 (JMJ Rework of Kosinki Remix)," from Jean Michel Jarre's Welcome to the Other Side (24/48 FLAC, Qobuz), the synthesized riffs

were solidly formed, and bass beats had excellent punch and transient snap. In fact, no matter what I played, leading edges sounded clear and crisp without being overly sharp.

The Moon 280D's dense sound was accompanied by an exceptional bass foundation. When I played Stravinsky's sensational "Sacrificial Dance," from Stravinsky, Stokowski, the Rite of Spring/Bach Transcriptions, with Yannick Nezet-Seguin conducting the Philadelphia Orchestra, (16/44.1 FLAC, Qobuz), the subtle variations in rumbling timpani sounds were cleanly reproduced. Bass drum attacks sounded extended and powerful, with the 280D delivering a dynamic presentation of percussive strikes.

The Moon 280D also produced a deep soundstage with solidly rooted aural images. Listening to Muddy Waters' "Tiger in Your Tank," from Muddy Waters at Newport 1960 (16/44.1 FLAC, Qobuz), the guitarist's half-brother and pianist Otis Spann was clearly positioned on the stage's far left, somewhat directly in front of drummer Francis Clay. To the right was Waters, who was noticeably in front of electric guitarist Pat Hare and bass player Andrews Stephens.

With "I Got My Brand on You," from the same Muddy Waters album, the Moon 280D presented a layered front- to-back image of audience handclaps, with some sounding very much near the stage. Also on this track, the sound of Hare's guitar as he walked to the stage's far right seemed to emanate from a foot or more beyond the right speaker. To wrap things up, I watched the action-thriller Extraction and could feel the sound of machine gun rounds being fired in my chest. The 280D also delivered the goods in a high-speed car chase, clearly reproducing the sonic details of a car being overturned and gunmen shooting out the windows of a bus.

Competition

Does the Moon 280D slay its competitors on every criterion? An Auralic Altair G1 digital audio streamer ($2,889) I recently listened to impressed me with its timbral delineation, a factor that will be particularly important to classical music fans. And spending more on Lumin's T2 network music player ($4,500), will get you a bit more of every- thing in terms of overall sound quality and features. Still, the 280D in my estimation easily rubs shoulders with the very best network music players at its price level.

Conclusion

Simaudio's Moon 280D wasn't designed with a kitchen-sink approach. If you're looking for a network music player with a front panel display, volume control, onboard room correction, HDMI switching, phono preamp, headphone output, and maybe a Star Trek-like transporter that beams people and objects to far-off galaxies, I'd suggest you look elsewhere. What the 280D does do is convert digital sources to analog and stream music from local sources and online music services with a high level of fidelity. Add to that its tank-like build quality, made in North America boasting rights, and lengthy ten-year warranty, and it's any easy recommendation for anyone who values quality over quantity.
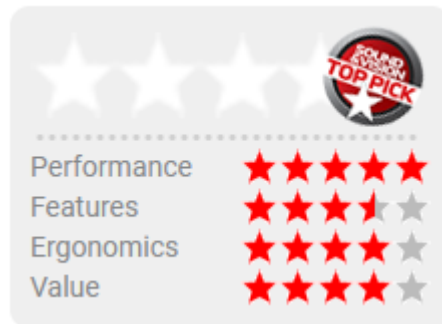
AT A GLANCE

Plus
Outstanding performance and build quality
Wireless multiroom streaming-capable
Roon Ready and AirPlay 2-compatible
Minus
Lacks front panel display
No HDMI input

THE VERDICT

Simaudio's Moon 280D is a bit light on features when compared with its wireless network music streamer/DAC competition, but it offers exceptional build quality and audiophile-grade sound.