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Hardware Review

Moon North 791/761 deliver the goods and then some



Moon 791 preamplifier/streamer/DAC and 761 power amp

As the owner of a Moon integrated amplifier and streaming DAC, I have been looking forward to trying this combination since news of its launch surfaced earlier this year. Even for those new to this most prominent Canadian audio brand, we at The Ear feel that the launch of Moon's North Collection is big news. Having been fortunate enough to spend time with Moon at the recent Ascot Show, I was even more impressed than anticipated. I got to listen to both the 681 Streaming DAC (£12,000) feeding the 641 integrated (£11,000) which replaces the v2 version of my 600i amp, and the combination reviewed here albeit with two 761s in mono configuration.

The 681, 641 and 791 feature high-resolution displays, replacing the large red LEDs of Moon's older products. In the case of the 681 and 791, they can now show artwork for the track being played. What struck me in particular with both systems was their musical coherence and unfatiguing yet detailed presentation, an often rare quality at shows. It was clear during the presentations at Ascot that Moon were particularly proud of the new BRM-1 Bluetooth remote, which features a knob that replicates Moon's well-loved large rotary volume control. The volume control circuitry is entirely new on all the North Collection amplifiers. Components from this new range, including integrated and power amplifiers, can all be connected to your network, where their operation is synchronised, and they can receive product updates.



Anyone familiar with the upper echelons of Moon products, previously known as the Evolution range, will be familiar with the flawless build quality. For the time being at least, the North Collection is only available with the well-loved two-tone black and silver facias. Many other Moon products are available in all-black or all-silver, but I've always felt that the two-tone looks are far superior. The feet of both components are newly designed and are said to offer better isolation than those fitted to previous models.

AC or DC

I will start by discussing the features of the 761 power amplifier, which is priced at £14,000 and weighs in at 35kg. The 761 is a dual mono design featuring two custom, low-noise 700 VA transformers. The standard rated power output is 200 watts per channel into 8 Ohms, which significantly doubles to 400 watts into 4 Ohms. In mono form, activated by a toggle switch on the back panel, the 761 can provide up to 600w per channel into 8 Ohms. In addition to the mono/stereo switch, there is another to select between AC and DC modes. According to the manual, the former may be chosen if the 761 is used with a preamp suspected of outputting DC due to either age or design.

Earlier Moon components are renowned for their long run-in and warm-up times. The 761 and the other amplifiers in the North Collection are zero feedback designs and feature Moon's proprietary MDCA (Moon distortion-cancelling amplifier) technology. Operating outside of the audio path, it uses what they call 'comparative technology', which measures input and output voltages to ensure that close to maximum performance is available from cold. Although the performance of this amplifier did improve over the first 24 hours or so after arrival it remained extremely consistent thereafter. Being a true balanced design, it features XLR input sockets, although a single-ended pair of RCA sockets are also present. Additionally, there is an ethernet socket, which, as mentioned before, allows this power amp to be controlled by the partnering preamp over Moonlink. For owners who have older or preamps from another brand, there is also a 3.5mm 12v trigger input. An LED on the front panel changes colour when the amplifier is running a software update, something that all items in the North Collection can do when connected to your network.



The 791, priced at £16,000, may well be unique at its price point in that it contains both a high end DAC, streaming stage and a high end analogue preamp with phono stage. Considering the 791 is priced at only £500 more than the outgoing 780D v2, I think that makes it great value. I will start by discussing the DAC section, which Moon calls the MDE-2 (Moon DAC engine-2), and features re-clocking via FPGA to picosecond accuracy. The FPGA controls the ES-9038Pro chip and utilises all eight available channels in Hyperstream mode, these are then clocked and summed by the FPGA. The DAC stage of the 791 can be set up for either fixed or variable output. While the former may

seem like a waste of a good preamp, I can see this being of benefit to someone who already has a top notch preamplifier. For those of us using the variable outputs, the DAC's analogue stage outputs directly to the preamp stage of the unit, where it will no doubt benefit from the short signal path. Moon does not list the DAC chip in their literature, perhaps as such knowledge may lead to assumptions of certain sonic characteristics. I am of the opinion that the power supply and engineering have more influence on performance than the type of chip used, so I completely understand why such a decision may have been made.



The 791's Mind 2 streaming stage will be familiar to Moon users and worked as flawlessly here as it does in my 780D. Services such as Qobuz, Highresolutionaudio, Deezer, Spotify and Tidal are all present and correct, as are various internet radio stations, notably Radio Paradise. Both DAC and streamer process MQA and the unit is ready for Tidal Max as soon as Tidal complete the necessary coding on their side. The 791 is Roon ready although currently I am not, but a previous trial with another Moon network player worked flawlessly with Roon. Speaking of things I could not try, the absence of a turntable in my system meant that the phono stage was left idle, but I should mention that it's configurable for a large range of MM and MC cartridges. I did test the HDMI ARC input with a feed from my TV and i worked without issue. Video and audio were perfectly in synch, which is not always the case. Unsurprisingly, this input would not play the DSD layer from SACDs nor the audio soundtrack from Blu-Ray discs, which is legally only available over HDMI output to a multichannel processor. There is a host of other digital inputs on offer including coax, optical, AES and USB. There is a socket labelled 'USB Host' designed for direct playback from a USB stick or hard drive. I did try playing from two separate 'sticks', both loaded with files that played fine in my car, but the 791 did not recognise them. The manual explained that this facility is only compatible with certain drive and file types and that a UPnP server is preferable in terms of reliability and performance, so users will still need a good server. Analogue line-in is catered for by way of two phono inputs and a pair of Balanced XLRs. All inputs can be labelled as desired and users can even apply volume levelling to avoid nasty shocks when switching between sources. My kids appreciated the compatibility of Bluetooth and Apple Airplay 2, which again worked as expected.



The BRM-1 remote is a work of genius, I loved the rotary volume control which offers 0.5db steps across the bulk of the volume range, as does the volume dial on the 791 itself. The volume control pot, named M-Vol3, is an entirely new in-house design. I preferred the 0.5db steps of the 791's volume control over the 0.1db steps of my 600i's dial. The soon-to-be-launched 891 will allow users to toggle between the two. Being Bluetooth, it can be used without having line of sight with the unit it is controlling. There is even a 'spillage channel' around the OLED screen, which allows liquid to flow harmlessly away from the sensitive electronics within the unit. Interestingly, my Moon 600i's FRM-3 remote, could operate the 791, suggesting IR compatibility. I found the OLED screen really useful, especially as I prefer to defeat the display screens on electronics for sonic reasons.

Let's play some music

Following setup and allowing the system to warm up, this combination redefined the performance that my Totem Forest Signature speakers are capable of in my room. Immediately, I was greeted with a much larger soundstage than I had previously experienced, backed by a tremendous sense of weight, dynamics and scale, which was delivered in an organic manner. This system proved unfatiguing, even at party volumes, yet there was no lack of bite when the music demanded; in fact, the delivery of transients could be frightening when called for. I would describe the tonal balance as fruity and colourful, as in the antithesis of the somewhat grey and lifeless sounds one often experiences when a system does not gel.



My Totem Forest Signature speakers have always been great at throwing a soundstage away from the confines of the cabinets, but here, they delivered this trick on another level. With suitable recordings, the soundstage expanded well beyond the walls of my room and well forward when that was how the engineers mixed the recording. Occasionally the bass can get a little uncontrolled on my system with certain recordings, such as John Martyn's The Church With One Bell. The 791/761 showed that the issue did not lie with my speakers, or room because the bass was better controlled, even though it had more depth and weight. The additional control was accompanied by a more natural sense of phrasing and texture. Despite the beautiful way this system presents the music, it can really boogie with the right material. I have been using a 24/96 Qobuz stream of Tony Allen and Hugh Masekela's Rejoice album for review purposes since its release. I purposely did not purchase the album as a download for comparative reasons. Here, the music's speed, timing and life were off the scale, yet the lead brass instruments possessed a delicious tone and brilliance.



To summarise the presentation of this combination, firstly, it sounds attractive and colourful, even at low volumes. Sure, there is more excitement to be had from turning up the volume, but the character does not change. You can follow bass lines and appreciate the weight of the sound when listening at remarkably low levels. There is a natural sense of immediacy and focus here that is new to Moon's products. Yet, despite this, the results are far from overly analytical. Only the very worst recordings were anything less than enjoyable, with the best you get lost in their beauty. An early 90s CD rip of Ozric Tentacle's Erpland often sounds thin and lifeless, but not here, where the 791/761 brought out the dynamics and drama of the music and made it a thrilling listen. Roger Water's masterpiece, Amused To Death in

DSD, sounded mesmerising on this system. As anyone who has heard this album on a decent system knows, it has massive dynamic range, and the 'Q Sound' engineering should produce a huge, holographic soundstage. Via the Moon duo, the image extended well beyond the extremities of my room, and spatial effects such as the barking dog, could, at times, appear behind my head. Speaking of DSD, DSD 256 files could sometimes trip up Moon's previous-generation DACs. The 791 played them flawlessly via both USB and the Mind 2 ethernet input.



Live recordings, such as 4-Way Street from CSN&Y (CD rip), took me to the live event and allowed me to appreciate these great musicians at their peak. The more recently released live album, Wheels Turn Beneath My Feet from Fink (24/44 download), is often used at demos. Here, it sounded the best I have experienced by some margin. The engineers have made this album sound a little larger than life, but ignoring that, I could have been at the gig.

Towards the end of my time with this system, I replaced the near entry-level Melco server I'd been using when listening to stored files with the flagship N1-S38 model. Interestingly, with the latter, I got better results using the CAD USB II-R cable. However, with the older unit, my Network Acoustics Eno ethernet cable via Mind2 would generally give a fuller presentation with more ambience. So, it is worth experimenting with different connections, depending on your setup and preferences.

Wrapping up

I am writing this paragraph after packing up these memorable components and making my final listening notes. I would love to keep them, but currently they must remain an aspiration. Their combination of fantastic looks, ergonomics, flexibility, and big, weighty, colourful, attractive, and thoroughly musical performance will take a lot of beating, even at their elevated price. I give them my highest recommendation for anyone considering this kind of system. They do not put a foot wrong musically or hi-fi wise and are a pleasure to use; dammit, they even look great. Although their time with me was all too brief, the memory of their performance will be long-lasting. The entry fee is not low, but I can think of far worse ways of spending such funds that wouldn't bring the degree of musical satisfaction that the Moon North 791/761 combo can deliver.