

## Brinkmann Audio Nyquist Mk II Streaming DAC review



**Introduction:** The long running battle of analog versus digital is not showing any signs of stopping any time soon. Proponents of either side have been going at it for many years, but personally I don't see why we cannot enjoy both without sacrificing the sound quality and the enjoyment of our beloved music regardless of the format. Those who are against digital often say that it sounds cold and sterile compared to vinyl, but is it actually true in every single case? The answer is, of course, no. Brinkmann Audio Nyquist Mk II Streaming DAC is a prime example of how to properly handle digital formats without sacrificing sound quality and presenting music with a natural uncoloured sound that would appeal even to the most zealous analog proponent.

Built by hand in Germany by Helmut Brinkmann and his team of engineers, the Nyquist, now in its second incarnation, follows Brinkmann's long-standing philosophy that everything has an effect on sound and that these influences are real, even if all of them cannot be explained scientifically. Which is why all Brinkmann components are built using specifically chosen materials, carefully inspected by Helmut Brinkmann himself to make sure everything functions exactly as intended to provide the most enjoyable audio experience. The Nyquist Mk II is no exception.

### DESIGN

Fairly compact in design, the Nyquist Mk II has a distinct look similar to other Brinkmann components, such as Marconi Line Preamplifier, with transparent glass top, heat sinks on both sides, two large knobs, 3 buttons and a small display in the middle.



In order to eliminate unwanted vibrations and completely isolate the unit, it comes with 12 kg granite base, which has the exact same width and depth as the DAC and fits perfectly underneath it. Brinkmann recommends not to have anything else between the DAC and the granite base as both of them are tuned as a single unit. The granite base can of course be placed on other isolation devices.



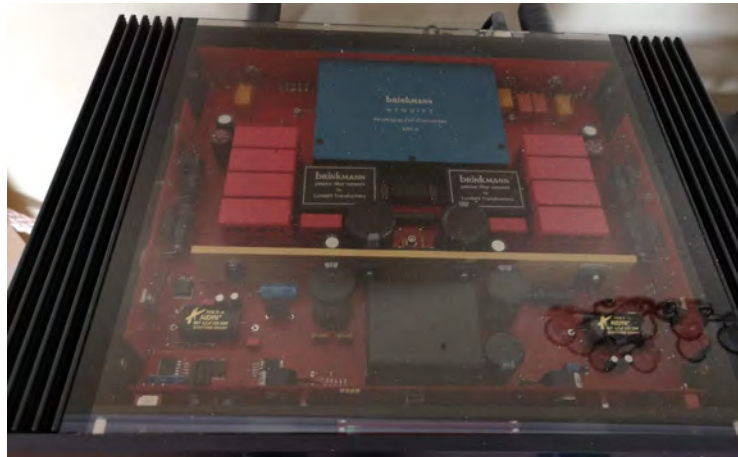
Since its first incarnation back in 2016, the Nyquist DAC has been designed to be easily upgradeable. The digital module is removable and can be replaced with an upgraded one. Which is exactly what Brinkmann offered to the original Nyquist owners when Nyquist Mk II was released last year.

Nyquist Mk II achieves its extraordinary warmth and musicality thanks to the utilization of NOS Telefunken tubes in the output stage, just like in Marconi Line Preamp and Edison Phono Preamp.



Nyquist Mk II uses an external power supply. Brinkmann employed their proprietary high voltage power supply technology, which is unique among digital source components. This manifests in a better digital circuit performance. The original Nyquist had only one power regulator, whereas in Mk II 6 of the 12 regulators benefit from this technology. The new digital module includes a completely upgraded power supply section, incorporating 12 power regulators compared to the 11 found in the first generation Nyquist. The additional power regulator achieves an even better decoupling of the DAC clock from the rest of the circuit resulting in lower jitter, especially with USB and Ethernet playback. This results in even higher resolution without any kind of compromise of the amazing musicality of the original Nyquist.

To address the current needs of modern audiophiles, Nyquist Mk II offers numerous connectivity options, including USB 2.0 (Type B), Ethernet, SPDIF, Optical, and AES-EBU. Output options are Balanced (XLR) and single ended (RCA) as well as balanced headphone output. Unfortunately, the absence of a USB Type A input prevents the convenience of directly connecting a USB thumb drive or an external hard drive. But given all other connectivity options, it's not a major issue.



Supported audio formats include PCM up to 384 kHz (including DXD), DSD 64, DSD128 via DoP, and DSD256 native, as well as MQA. As for protocols, Nyquist Mk II supports DLNA/UPnP and is Roon ready. Streaming services support includes TIDAL, Quobuz, Deezer and vTuner.

Supplied remote controls volume, phase inversion, input switching as well as mute function.

#### SETUP AND CONNECTIVITY

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The first thing I connected to the DAC was an Ethernet cable from my router. Brinkmann recommends using mconnect's control app for streaming, but I much prefer the more powerful and versatile BubbleUPnP app for Android. I liked using it so much over the past year, I obtained a licensed paid version. I quickly fired it up on my Android phone and it immediately found the Nyquist as one of the available renderers. Within a minute, I was streaming music from TIDAL using my TIDAL HIFI subscription including MQA.

Using the same BubbleUPnP app, I easily accessed my own Synology NAS running MinimServer, browsed my library of FLAC, MP3 and DSF (DSD) tracks and added some to the playlist. One limitation that Brinkmann list in the manual is that DSD streaming is only supported for single rate DSD (DSD64). I guess it has to do with large file sizes of higher DSD rates requiring bandwidth higher than what an Ethernet cable can provide. Which brought me to USB connectivity.



The DAC came with Windows 10 drivers on a USB thumb drive. I installed them on my HP Pavilion 15 laptop and connected it to the Nyquist with a USB cable. I don't use Roon for a variety of reasons. In my opinion, Roon is not suitable for expert computer users such as myself. It does not support folder access, which is essential to me.

Plus, why would I pay a subscription fee to access metadata that I can easily look up myself for free if and when needed? But I digress. On my Windows laptop my audio player of choice is foobar2000. It's a free open-source software with a ton of features and add-ons to handle any kind of format playback (including DSD) and any kind of output, such as bit-perfect ASIO drivers required for MQA playback for example. I spent some time downloading and configuring DSD/SACD add-ons, but finally managed to set it up correctly and played a number of DSD128 tracks stored on an external USB hard drive connected to my laptop.

Using a Toslink cable, I connected my Oppo BDP-95 Universal Player and played some of my CDs as well as a few DVD-Audio discs from my collection.

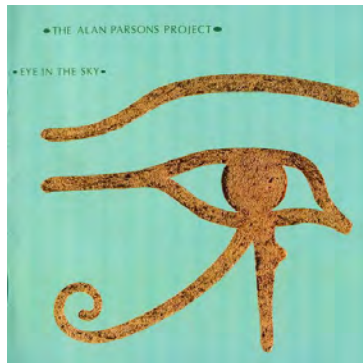
So how did it all sound?

## SONIC PERFORMANCE

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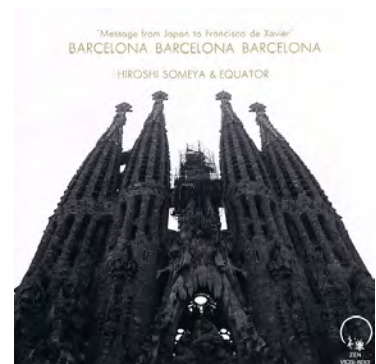
My critical listening began with playing Chris Botti's live CD "Chris Botti in Boston" (Columbia – 88697 38735 2). It's an extremely well recorded live album that immediately gives you the sense of realism, the feeling of "being there" and perfectly conveys the ambiance of the concert hall where this album was recorded. Even though I love the whole album, a few standout tracks for me were "Broken Vow", a Lara Fabian cover by Josh Groban, as well as Morricone's "Cinema Paradiso" featuring the amazing Yo-Yo Ma on cello.

Both tracks sounded clear and detailed, yet very natural. Josh Groban's voice was warm yet powerful, with a focused image within the expansive soundstage. The sound of Chris Botti's trumpet was never piercing or distorted even in the highest frequencies. Having seen him live in concert late last year, allowed me to compare the live sound with reproduction by the Nyquist. While it's nearly impossible to completely recreate the live sound, the Nyquist manages to get as close as possible to it, at least with this album.



My next optical media listening choice was The Alan Parsons Project "Eye In The Sky" (Classic Records – HDAD 2011), a double sided DVD-V / DVD-A disc with the DVD-Audio side encoded in 24-bit/192kHz. And once again it did not sound harsh or cold, but warm and natural, as if I was listening to a vinyl record. Eric Woolfson's vocals on the title track conveyed the emotional impact of this song in perfect clarity without being analytical. Same for every instrument on this and other tracks.

My good friend and a fellow Mono & Stereo contributor Richard H. Mak is my enabler when it comes to obscure and very hard to find musical releases. One such release is a Japanese tribute to Barcelona and its culture by Hiroshi Someya and Equator called "Barcelona Barcelona Barcelona" (Message from Japan to Francisco de Xavier)" - (JVC ZEN VICG-8013) released in 1991. The music is flamenco, but played by Japanese musicians, It is extremely well recorded and features amazing performances by guitarist Hiroshi Someya and other musicians with some occasional male and female vocals. Again an amazing sense of presence of all the instruments right in my room as well as absolute clarity without any harshness. Lots of air around the acoustic guitars and percussion instruments. Absolutely precise imaging for all elements involved.



Of course, my listening would not be complete without playing something from my big collection of hard rock and heavy metal CDs. Not something most audiophiles listen to, but I am an exception. The disc of my choice

was 2006 album “Before The Bleeding Sun” by Finnish melodic death metal band Eternal Tears Of Sorrow (Spinefarm Records –987151-3). Not only are the songs drenched with beautiful melodies, but this album benefits from an amazing production by metal standards, thanks to expert mixing and mastering at Finnvox Studios by Mikko Karmila and Minerva Pappi respectively. Epic tracks “Red Dawn Rising” and “Angelheart, Ravenheart (Act I: Before The Bleeding Sun)” featuring choir are my favorite on this album. I appreciated how Nyquist managed to reproduce these challenging tracks, with every instrument heard clearly and distinctly, despite the compressed nature of this music. That satisfying guitar crunch, galloping double bass drums and sweeping keyboard and guitar solos, clean male and female vocals as well as harsh vocals were excellent. Easily the best sound from this CD I have ever heard, despite hearing it many times over 13 years.

Streaming some files from my Synology NAS, I played a compilation given to me by a friend, which allegedly contains tracks used by YG Acoustics during their demos. Even though each track is in AIFF format with 16-bit/44.1kHz resolution, the sound was amazing. Which once again confirms my firm belief that in digital world, format is far less important than the quality of the original recording. One of the tracks is by Japanese taiko drum band Ondekoza.



While playing various records using Nyquist over the course of 3 months, I had not experienced such rich, textured and powerful bass that literally shook the walls. Having powerful and capable amplifier and adequate speakers played its role, of course, but Nyquist as the source, was definitely a star performer here. Quality and amount of bass was simply astonishing and I played this track over and over again to savour every moment, every drum beat and amazing decay.



My next choice was the OST from the Chinese movie “Three Kingdoms: Resurrection of the Dragon” by Henry Lai.Wan-man. It’s an epic with explosive dynamics employing Japanese taiko drums,

various Chinese traditional instruments as well as a full symphony orchestra. Many tracks on this album can be quite challenging for a system, but Nyquist DAC was on top of the game once again faithfully reproducing the quiet moments as well as full blown orchestra attacks and massive drum sounds.

I still keep old MP3s of various bitrates in my library and when I played some of them through the Nyquist I was pleasantly surprised how good the sound. I realise they are compressed, but somehow the Nyquist made them sound better.

Streaming from TIDAL in CD quality FLAC was just as enjoyable as playing CDs. Tracks that stood out were:

- *Bardo* by GoGoPenguin from the album “A Humdrum Star”
- *Che Vuole Questa Musica Stasera* by Peppino Gagliardi from the OST “The Man from U.N.C.L.E.”
- *You Only Live Twice* by Mark Lanegan from the album “Imitations”
- *Alive - Part II* by Darkwater from the album “Human”

I intentionally played music from completely different genres to see how Nyquist would handle each. As you might have guessed by now, the results were excellent in each instance.

MQA is a controversial subject. Personally, I do hear the difference on some albums, but in my opinion it could be due to remastering of the source material, the origins of which cannot be reliably determined. Suffice to say, if you like MQA, the Nyquist supports it with a full hardware unfold for you to enjoy.

My listening tests concluded by using the headphone output with two pairs of my headphones - HFIMAN HE400i (open back) and Sennheiser 280Pro (closed back). The headphone output of the Nyquist is rated at 30 -

600 Ohms, so it can easily drive pretty much any headphones on the market. My HIFIMAN headphones are 35 Ohms, while the Sennheisers are 64 Ohms. In both cases the Nyquist performed admirably. I enjoyed the open back HE400i for their spacious sound and the 280Pro for their precision.



## CONCLUSION

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Over the past 3 months, having the Brinkmann Nyquist DAC and streamer in my system has been an extremely enjoyable experience. With its natural uncolored sound it lets the listener truly appreciate and even rediscover their favorite music of any genre and in any digital format. Its ease of use and easy upgradeability make it an obvious choice for those looking to upgrade their digital source or get into the digital side without the fear of losing that warm sound of the analog world. I highly recommend it for the analog lovers as they will for sure be pleasantly surprised.

**Alex Gorouvein** - Mono and Stereo contributing writer

## TECHNICAL SPECIFICATIONS

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- Features digital module upgradable, separate converters for PCM and DSD, remote control
- Inputs USB 2.0, SPDIF, AES-EBU, TOSLINK, RJ45 ETHERNET
- Streaming support DLNA, Tidal, Deezer, Qobuz, vTuner and Roon
- Formats MQA™ and PCM up to 384 kHz (DXD), DSD 64, DSD128 via DoP, DSD256 native
- Gain adjustment 0...+10 dB
- Output voltage maximum 3,5 V eff.
- Output impedance 10 ohms Balanced
- Headphone output 30-600 Ohms
- Dimensions (WxHxD) 420 x 95 x 310 mm (with granite base); power supply 120 x 80 x 160 mm
- Weight 12 kg; granite base 12 kg; power supply 3.2 kg

## ASSOCIATED EQUIPMENT

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- Karan Acoustics KA I 180 Mk2 integrated amplifier
- Aesthetix Mimas hybrid integrated amplifier
- Oppo BDP-95 Universal Player
- Larsen 6.2 loudspeakers
- PSB Stratus Bronze loudspeakers
- Synology DS-214 NAS Server with MinimServer and BubbleUPnP Server, TIDAL HIFI subscription
- BubbleUPnP for Android control point
- HP Pavilion 15 laptop
- KirmussAudio High Definition speaker cables
- EnKlein XLR interconnects and USB cables
- BIS Audio power cables
- HIFIMAN HE400i headphones
- Sennheiser 280Pro headphones