

Melco N1A/2 and N1ZH/2 Music Servers



CHRISTIAAN PUNTER | 31 May 2018 | No Comments



Not all NAS servers are created equal!

Review sample provided by [Dimex](#)

Retail prices in the Netherlands:

Melco N1A/2: € 2499,00 black & silver

Melco N1ZH/2: € 4999,00 black & silver

Melco Hi-Res Audio Ethernet Cable: from 49 euro for a 0.5m length

As part of the [CH Precision A1 + C1 review](#), a Melco music server was also supplied. It was only the entry level N1A/2 model but still, using its dedicated Network output and streaming via UPnP to the CH Precision C1, it outperformed all the USB competition that I had at hand. After I finished the CH review, the Melco server needed to be returned but the distributor was kind enough to let me keep the CH components a little longer. This made me think: If the entry level Melco model already performed so well, what about the models further up in their catalog?



Initially, the C1 did not have a USB card and so at that time, I did not have a chance to assess the Melco's USB outputs. So, I requested a USB card for the C1 from CH Precision and contacted Andre van den Berg of Dimex, our Dutch distributor for Melco. He was happy to supply not only the N1A/2 but also the next model up, the N1ZH/2 so that I could assess the Melco's USB outputs, as well as see how the two models compared.

Dennis Schluter delivered both servers plus a Melco C1AE Cat.7 Network cable and explained that Melco's are not just PC's, but purpose-built devices. For example, the hard drives are formatted in a proprietary manner and are deliberately limited in speed. They're plenty fast for audio uses but slow enough to avoid inducing noise into the system.



Shortly after connecting the servers, an update became available for download on the device's displays. I clicked yes, and the update was carried out automatically. Among other things, the new firmware now adds expansion drives in the scan and allows the unit to retain the assembled library index even after power off. For any UPnP device,

browsing on folder level is always possible immediately, but prior to this particular update, the indexed data (extracted from the files' meta tags) needed to be retrieved again every time the unit was power cycled. The import of WAV tags is another area where important improvements have been made. Melco has taken special steps to make sure that the software can read all WAV standards, even if inaccurate or badly assembled. All my CD's are ripped as WAVs via dB Poweramp and I can report that all tags appear precisely as they should. Finally, I understand that the new update is said to raise the sound quality compared to the last version, but I have not carried out any comparisons to be able to comment on this. All I can say is that the N1A/2 sounded great before the update, and it still sounds great after the update. Note that this review is based on both servers running FW V3.80.



Armed with three DACs and three servers, plus the two Melco's, the comparisons could commence! The main DAC will be the CH Precision C1 DAC/Controller with Network as well as USB inputs, but I will also use the [Bryston BDA-3](#) and the [Aqua Formula xHD](#). The main servers, of course, are the two Melco's but I will also use the [Antipodes EX](#), [Bryston BDP-3](#), and [AudioAanZee Reference Flow servers](#).

Technical Aspects

There are none! Well, there are, of course, but Melco servers truly are Plug and Play, meaning that no technical knowledge is required to get them to work. Connect a server via USB and it will work. Choose Network instead, and it will also just work. Disconnect the Network cable and reconnect it, and the music simply resumes. It even resumes replay after disconnecting the direct link and substituting it for a connection to any random Network switch that is in the existing Network. So, nothing to configure, and no headaches.



Operation

The Melco servers come with Twonky Media Server preinstalled. All the music that you load on the server is automatically indexed and can be controlled with any UPnP application. This includes software for Linux, MacOS, Windows, Android, and iOS computers, phones or tablets. Other server software can be installed on the Melco, as well as Plug-Ins, such as SongKong, which allows manual and automatic metadata editing. The best app to control a Melco server is probably Linn Kazoo, which can be freely downloaded and is available for both Android and iOS.



Listening via USB

Although I had a feeling that the Melco's special Network outputs were key to them sounding so good, this was something that first had to be proven, and so, I wanted to start with the USB connection and work toward my end goal from there. Also, it is fair to say that the CH Precision C1 is out of reach of most, so I thought it best to start with the more attainable DACs.



The entry-level Melco N1A/2 when connected via USB to the Bryston BDA-3 DAC, did not disappoint. It was sublimely articulate, well-detailed and very transparent. The Bryston BDP-3 server, by comparison, was bolder in its presentation, but sounded quite rough, even if it was quite engaging. The Antipodes EX server running Roon's performance leaned all the way to the other side, with a full, warm and relaxed sound. In spite of its warmth, the EX was just as detailed and refined as the Melco and did project a wider soundstage, with vocals seemingly focused more clearly in the center. Tonality aside, I also felt that the N1A/2 did not engage me so much now as it did when it was connected to the C1 via Network. But before I can prove, or disprove that theory, let's continue the USB side of things.

Switching to the Melco N1ZH/2, still connected to the Bryston DAC via USB, the difference was far from subtle! All the articulation and transparency of the N1A/2 remained, but the sound became markedly richer and fuller while avoiding sounding thick or colored. While the N1A/2 could be said to sound timbrally a little thin, the N1ZH/2 has spot-on natural timbre and great texture and is much more powerful bass. Granted, the Antipodes EX is still creamier and more relaxed, but both Melcos are



considerably more articulate and also more transparent and the N1ZH/2 is definitely not cool in character either. All the other audiophile parameters such as focus, refinement, and soundstaging were on par between the N1ZH/2 and the EX, making the remaining differences much a matter of taste and system synergy.

The AudioAanZee Reference Flow server, by the way, fell somewhere in the middle between the Antipodes and the N1ZH/2 in terms of smoothness and richness and was pleasant to listen to, but it fell behind these two in terms of nuance, and, more importantly, it did not sound quite as timbrally convincing.

At this stage, I had a clear preference for the N1ZH/2 and noticed that my brains were approving of all the audiophile parameters, and rhythmically I also found this server to be most involving, but, still I did not feel the music wash over me like it did via Network into the C1, with the entry-level N1A/2, no less.



DAC Change

To see how much the server-DAC match was a thing, I switched from the Bryston BDA-3 DAC to the Aqua Formula xHD DAC. Now the sound was not quite as powerful or as ballsy in the bass as with the Bryston DAC, but all the more transparent and refined for it, and definitely not too clean. The Bryston is a highly engaging DAC, for sure, but the Aqua impresses with subtler aspects, such as the aforementioned refinement and transparency, but also in terms of image specificity, treble air, and the length of decays. Switching to the Melco N1A/2 into the Aqua DAC, as expected, the sound became thinner and barer in comparison. I didn't notice it before with the Bryston DAC, but now it also became clear that the N1A/2 also sounds drier than the N1ZH/2. The combination sounded refined and articulate, but I felt that the very revealing Aqua could be better matched.

So far, judged on USB performance alone, it would seem that the N1ZH/2 is an extremely good server that quite clearly tops the entry-level N1A/2, which is actually a great server itself, provided that it is smartly matched. Importantly, while the non-Melco servers offered differences in tonality, catering to different taste, none of them could beat the N1ZH/2 in any of the audiophile parameters. But this is not yet the end of the story. Switch to the Network connection using a Network-capable DAC, and matters become even more interesting.



CH Precision C1 with Bryston BDP-3 on top.



CH Precision C1

Before I dive into the Network side of things, I needed to assess the N1ZH/2's sound via USB, into the CH Precision C1. The C1 adds another perspective to this by offering the choice between USB Class 1 and Class 2. Class 1 is limited to 96kHz but sounds very noticeably tighter and more articulate. Class 2 sounds freer, smoother and more fluid, but is also slower in pace and less tight in the bass. The C1 is a very sonorous and rich sounding DAC, and this made an excellent match with the highly transparent and neutral Melco N1ZH/2. The Melco sounds really great using either mode, and the

choice between the two would come down to taste. Personally, I preferred the tightness and clarity of Class 1, even if Class 2 let the music breath more freely.

Listening via UPnP Network

Starting with the N1A/2 (entry-level, remember?), connected to the C1 via its dedicated “player” Network output, I am amazed once again. Yessss, this was clearly more involving than with any of the aforementioned combinations. Now, I am hearing full and juicy bass, smooth and rich mids, and the silkiest treble. But also the best focus and the widest, as well as deepest, soundstaging so far, along with seemingly endless decays.

Switching to the N1ZH/2, still via Network, the sound became tighter and more direct, with a more communicative midrange. The N1A/2 was actually quite seductive with its silky-smooth midrange, but after hearing the N1ZH/2, there was no going back, because, in addition to being more communicative, it was now clear that the N1A/2 is timbrally not quite as convincing as its bigger brother. The N1ZH/2 quite simply sounded more like the real thing. Especially when playing music with acoustical instruments there was no doubt that the N1ZH/2 relayed timbres and textures extremely convincingly, and the more I listened to it, the more I noticed that I was just enjoying the music, rather than dissecting it into its audiophile parameters. Now, the music most certainly did wash over me, along with all the audiophile boxes being ticked.

Still, I don't feel that all my descriptions so far really do the Melco servers' performance justice. There's an aspect to their sound, when playing via the Network connection, that defies audiophile parameters. No matter which server is used, in the context of my current system at least, there's always a kind of measured quality to USB. Via the Network output, however, both Melco servers sound freer and at the same time rhythmically more assured. Everything seems to be un-blurred, utterly dynamic and transparent but also completely enveloping and free-flowing and entirely fluid and relaxed, but only when the music requires this. The result is decidedly non-technical and can best be described as being utterly musical and wholly involving.



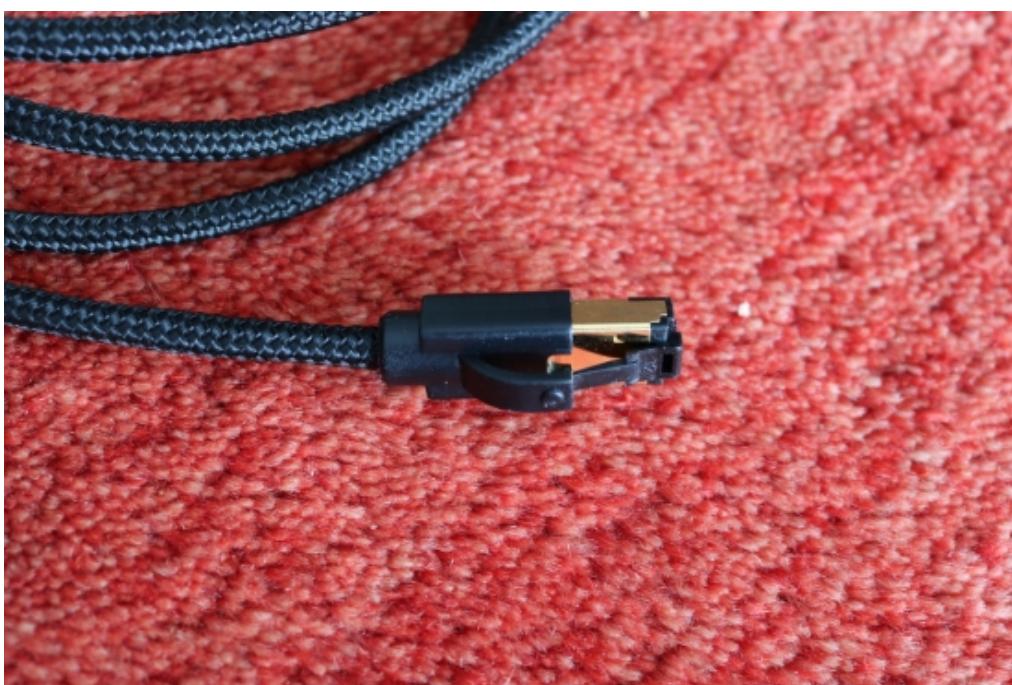
Direct “Player” Network output

The value of the Melco's direct Network output really should not be underestimated. This output is freed from all noise and only carries the audio packets and nothing else. The Melco's can also play over UPnP via the existing Network, meaning that the signal passes all the cabling and switches of the existing Network. Purists might counter that this should not matter since audio over UPnP is not sensitive to jitter, and they are right in that assessment, but apparently, there is more to this. Melco explains that there can be huge amounts of noise on Network connections and that receiving devices can be really sensitive to this. Now whether or not this is all there is to it, or there are other factors that we take into consideration, I don't really care, as I have conducted the comparisons and can confirm that there is indeed a very large difference in sound between playing direct via the dedicated “player” output and going via the existing Network. Used this way, let's call it indirect, the server still sounds good, but definitely less spectacularly so, the entire presentation becoming decidedly washed-out, more blurry and less solid in the bass. Actually, after letting this sink in, I noticed that when playing indirect the sound starts resembling USB, meaning that a case really can be made for placing high importance on a dedicated, clean, Network environment.

Network Cables



Not only the server and DAC are important for the sound quality though. Believe it or not, but the Network cable between server and renderer/endpoint also plays a part in this. This statement might be especially tough to swallow since Melco has put great effort into creating a clean environment for the Direct Ethernet output, but still, I could hear clear differences from cable to cable. The differences that I heard between these ethernet cables are generally in the fields of tonality, spriteliness, and tempo, so the result can range from smooth and relaxed to tight and fast. I have not yet established a watertight logic for this, and so far I've only heard one Cat.7 cable but it seems that Cat.5 cables tend to sound generally clean (but perhaps comparatively a little thin and bleached in tonality) while Cat.6 cables tend to sound richer and more full-bodied. But again, this is not watertight. I've tried several Cat.6 cables and also within this group, there are differences.



Above: Melco C1A1 Cat.7 Ethernet cable with unbreakable locking system

What I can say definite things about is the Melco C1A1 Cat.7 Ethernet cable. Compared to the other, more mundane, candidates that I had at hand, it sounded warmer and smoother, especially in the midrange, and you could say that it makes the

music more forgiving. From memory, the AudioQuest Vodka (which is considerably more expensive) made for broadly similar changes to the sound, when I tested it as part of the CH Precision review. Personally, I prefer the sound to be as propulsive and articulate as it can be, and so my preference goes to another cable. Another listener may not feel the same way, and certainly, system synergy also plays a large role in this.

The Melco C1A1 is pricier than no-name cables, but certainly not priced extravagantly. It is manufactured very precisely, very flexible and easy to use and it makes for a nicely smooth and easy-going sound. Obviously, any network cable will work as it should, from Cat.5 to Cat.7 and even el cheapo no-name products. So, if this experimentation sounds like too much trouble, then simply don't worry about it and get good decent quality cables. The Melco servers will sound remarkable, also with standard Ethernet cables.

Conclusion

Even if it goes against popular belief, there really is a big difference in sound quality between NAS servers. Both Melco servers sound markedly better than any other NAS that I tried. What's more, given a DAC with a Network input, even the entry level Melco N1A/2 already sounds more natural than any of the USB server competition that I have at hand. The N1ZH/2, however, further improves on the N1A/2 significantly both when used via USB and via UPnP, so much so, in fact, that with immediate effect, the N1ZH/2 has become my current Music Server reference.

Manufacturer's website: [Melco](#)

Distributor for the BeNeLux: [Dimex](#)

070-4042647



CHRISTIAAN PUNTER

Owner of Hifi-Advice.com

