Melco N1Z digital music library

by Alan Sircom

A revolution in digital audio has been taking place over the last half-dozen or so years. Whether we like it or not, digital audio is migrating away from shiny discs of polycarbonate, and moving – seemingly inexorably – toward non-physical forms, like streaming and downloading. This is often called 'computer audio', for good reason: in most cases, a computer audio system features a computer somewhere in the signal chain. It may be a dedicated or a disguised computer, but it's still a computer, and the big problem there is many audiophiles are not comfortable with that intrusion.

This isn't just a modern-Luddite (if that isn't a contradiction) rejection of the new. It's based around the simple fact that an off-the-shelf computer might not be the best environment for excellent replayed sound quality, and that there might be something a little more capable and dedicated for the task.

Which is where the Melco N1Z comes in.

Melco, history fans, is a company that started life in 1975, and is an acronym of Maki Engineering Laboratory COmpany. Makoto Maki (who still runs the company as CEO) began by making very serious, very high-end turntables, in part because audio is Makoto Maki's great passion. However, with the impending end of all things turntable with the birth of CD, Maki decided to cast his manufacturing net a little wider, started producing memory buffers for the then nascent home computer market, and called this division BUFFALO Inc. Fast forward to 2015, and there aren't that many turntable makers running a company worth a little over a billion dollars!

Despite being one of the biggest players in the computer storage game, Makoto Maki's great passion for audio never dimmed, and the recent market shift from 'audio' to 'computer audio' set him thinking about converging business and pleasure (or 'business' and 'older business'). The symmetry of a company with a reputation for data storage and a history in audio designing a dedicated device for audio data storage should not be lost on anyone.

Unlike a regular computer audio device, streamer, NAS drive, or other key component in the audio chain, the Melco N1Z is billed as a 'music library'. It's actually not a bad term, because the more you think of what the N1Z does for a living, the more you begin to think of it as a music library.

What the N1Z does in effect is act as go-between, either storing your files on its own SSD drives, or creating extensions to its own record-keeping of any files connected to the Melco. Unlike UPnP Media Renderers, there is no 'push' or 'pull' component to this – a file on a USB hard disk, a USB dongle, or on a network hard drive connected to the N1Z's ethernet port is added to its library if, and only if, you specifically navigate the N1Z to that file. On balance, this is a good thing, because if files are inserted or removed on a whim by the user, you might end up in rescanning your file Hell.

More importantly, the N1Z acts as a buffer between your audio system and the outside world. According to Masakazu Araki, Senior Product Producer of Audio at BUFFALO Inc., "The Melco N1 is designed and manufactured as a high-end source component for digital music. It is designed to be not like IT peripherals, but like consumer electric appliances, to reduce/stop any stresses normally encountered by computer audiophiles." Melco recognised that an increasing number of listeners were migrating over to networked audio, but plugging their high-end renderers and players into domestic network switches and routers. These are designed for computer use, but don't have the same audiophile credentials as a dedicated audio device. The N1Z (and its cheaper, HDD-based brother, the N1A) have a dedicated and very well isolated USD output and light-piped LAN port specifically for audio devices, and a big part of the Melco's daily functionality is to provide barrier nursing for your sensitive audio equipment. Melco takes this barrier to the next level in the N1Z, by running separate power supplies to the internal and external data interfaces.

Alongside these functions, the Melco N1Z also (some might say, primarily) acts as a high-resolution audiophile NAS drive, with 2x 512GB of SSD storage onboard, and the provision for driving external storage as expansion disks. However, being an audiophile device, rather than one aimed at a computer enthusiast, this is a NAS drive that can act as its own network, or can be used in the same way a conventional PC connects to your audio system, through USB. As standard, it runs Twonky as its NAS backbone, but increasingly Melco users are gradually switching over to MinimServer, because of its superior methods of searching, cataloguing, and storing files. Put simply, you can use the N1Z in a system with as much or as little flexibility as you like.

There's a mild negativity toward computer audio, largely from those who think it inconvenient and bewildering. I get that. Looking over the previous page, from the position of someone coming to this field for the first time, there are a lot of acronyms and discussions about networking, streaming, and interfacing. But, in a very real sense, the process of describing something like the Melco N1Z is a lot harder than actually understanding the N1Z. In a way, a description of its functionality is akin to describing each and every blade on a Swiss Army Knife in infinite detail, where in reality, you just use it. The Melco is that kind of product; detailed to describe, and easy to use. Think of it as a CD transport mechanism with a very, very long memory. It's shaped like a conventional piece of audio equipment for that very reason. OK, so you do need to put some thought into installation and ideally need something like a tablet or a smartphone to work your way through its library, but using it isn't rocket surgery.

Perhaps, though, it's best not to think of this in terms of 'computer audio' at all. That might be hard. We've become used to next-generation audio components looking like audio equipment, but when you scratch the surface, there's yet another small PC motherboard and stripped-down version of Windows or Linux running on an EPROM. The Melco is genuinely different. It is not a PC, nor is it a Raspberry Pi in a fancy box. Remember that back-story? Melco is a billion dollar computer peripheral manufacturer and storage king, run by an audiophile. The N1Z is what happens when you let that story play out to its logical conclusion. This is a dedicated, unique device, designed by probably the only team with the resourses and enthusiasm to create a truly 'Tabula Rasa' next-generation audio device. Which is why behaves like an audio device: you turn it on and off, rather than boot it up and power it down, and if you yank the plug out of the wall accidentally, you won't end up with dead hard disks. ▶

The N1Z is capable of supporting all sorts of files, from MP3 right up to DSD, and – as can be seen from the rear panel – it's laid out in the kind of logical manner that means you don't need a black belt in geek-do to understand how to connect it up. If you use network connections, 'LAN' hooks the N1Z to the outside world (and any additional storage) and 'Player' connects the N1Z to a media renderer. On the USB side, 'Backup' will create an off-board get-out-of-jail-free card USB store of your files stored on the N1Z (and is also the port used for upgrading the server program, should you decide to swap from Twonky to MinimServer), 'Expansion' allows you to add additional music stored on a USB hard drive, and the generic 'USB 3.0' connector allows you to connect the N1Z to a DAC.

We connected it to rather a lot of DACs in fact, ranging from the AudioQuest Dragonfly at one extreme to the Nagra HD DAC at the other. Nestling between them came the outstanding Exogal DAC (we had hoped to include that this issue, but there are only so many hours in the day... check back next month), the Devialet Expert 250, and the old but gold Wadia 121. For the networked side, I used my Primare NP30, a Linn Majik integrated, and Nick Ripley's Naim SuperUniti. I spent half the test running Twonky, and half running MinimServer, playing a wide selection of files, using PlugPlayer to control the N1Z in USB settings, and the relevant streaming app to drive it elsewhere. I also went through the body of documentation provided to Melco dealers to help smooth the set-up process, and both followed this to the letter, and then tore it up and went my own way. In short, I tried to break the N1Z through sheer weight of digital.

I failed. I failed spec-friggin-tacularly.

In every case, no matter what I tried to do to it, it worked. And in every case, no matter what I tried, it just made whatever it was hooked to sound 'better': more alive, more open, more dynamic, more of what people who still like CD like about CD. It's a hi-fi writer cliché, but the N1Z sounded like music.

Why they sound 'better' is easy to describe, until you realise this is digital audio, and the reasons shouldn't figure. Digital shouldn't have the potential for quieter backgrounds or greater realism, because those things should be intrinsic to the recording. Any yet, in listing the Melco N1Z across a wide range of devices, the common factor was that quiet background and a more 'real' presentation. It's no accident this appears in an issue filled with vinyl, because it shares more of that sense of 'presence' that a good LP system can deliver than almost anything I've heard from stream, rip, or download. At least, amost anything this side of 'sharp intake of breath' price tags. But best of all, it manages to do this to your existing system, either in replacing your laptop, or slotting into your network. It's a 'drop-in' solution that really works.

Musical examples seem a little trite, here, because it works so well, so universally. But, I did use both a collection of files used by the demonstrator, and those from my own hard disk. Some of which was audiophile noodle nonsense, but pumping out Elbow's anthemic 'One Day Like This' [*The Seldom Seen Kid*, Fiction] made a convincing argument to say this was pressing all the right buttons both sonically and emotionally. Moving over to Esa-Pekka Salonen and the LA Phil playing Stravinsky's *Right of Spring* [DG] did the same, and Roberta Flack singing 'The First Time Ever I Saw Your Face' [First Take, Atlantic] delivered the sort of swell of emotion you rarely get from listening to anything this side of a crackly old first pressing on LP.

This is not a minor step-up in performance. It's a 'realising the potential of the medium' step-up in performance. It's a 'making the most convincing argument for high-resolution audio files I've yet heard and enough to possibly win over this DSD sceptic' step-up in performance. But also right now, it's sadly also a 'I wish it did gapless and streamed Tidal', too.

I'm reliably informed Maki-san is a reader of the UK press, so this part's more or less a one-to-one dialogue, but please, please, pretty please push gapless playback and a

dedicated app up the priority list. In fact, I expect most Melco users would put up with using PlugPlayer or Kinsky or any other app for a few extra months if gapless playback was resolved a little bit faster. And if MinimServer manages to create the same front-panel display as Twonky, showing the track playing directly, that would be neat, too.

Everything else in critical terms is either inane (the logo is cheesy, and the product will win no prizes for industrial design) or not really Melco's fault – the N1Z follows good power management and goes into sleep mode if left too long to its own devices. This is called 'abiding by the rules'. However, some networked systems don't work well with NAS drives waking from slumber. However, most who look at what the N1Z can do, and those who have a chance to listen to it learn to overcome such trivialities, rather than accommodate them.

If this is reading like a gushing rave, that's because it is. The Melco N1Z is the product the audio industry needs to calm and win over those still reluctant to move into the 21st Century's interpretation of digital audio. The N1Z is not 'cheap' (although the N1A is considerably more affordable), but it is in the realm of 'attainable' for most serious audio enthusiasts. And it delivers the goods, in spade-loads.

If you have a problem with computer audio, and that problem is the word 'computer', then the Melco N1Z is the solution. The N1Z is the audiophile's replacement to the computer or the network, because it sounds better than both. If you have been holding on file-based audio you can stop now! The N1Z gets the strongest recommendation. +

TECHNICAL SPECIFICATIONS

Type: USB/Ethernet File-based music library
File types supported: DSF, DFF, FLAC, WAV, ALAC, AIFF, AAC, MP3, WMA, OGG, LPCM
Ports: 2× RJ-45 LAN, 2× USB (+dedicated USB charging output)
LAN port Interface: 10BASE-T (10mps, full/half duplex), 100BASE-TX (10omps, full/half duplex), and 1000BASE-T (1000mps, full duplex). All auto negotiation, TCP-IP protocol, CMAS/CD access
USB terminals: Backup (USB 3.0, rear panel)
Expansion (USB 3.0, rear panel)
USB3.0 (rear panel)
5V power supply USB port
Internal hard drive: 2× 512GB SSD, 'audio grade'
Power supplies: separated between net and audio
Dimensions (W×H×D): 37×6×35cm
Weight: 7kg
Price: £6,200

Manufactured by: Melco
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