

AUDIO BY MICHAEL LAVORNA STREAMS

THIS ISSUE: Melco's N1A music server is taken for a test drive.

A Music Server for Music Collectors

For a growing number of people, music is free, or virtually so. If you don't want to deal with ads, \$9.99 a month buys you unlimited, ad-free access to millions of tracks. At least at present, streaming from services like Spotify, YouTube, and Pandora is where music consumption is headed—and it's really all that most people want.

You and I are different. We collect music, and care about the quality of our listening experience. We care because listening to music is something we do while not doing anything else. This makes us: a) an increasingly rare species, b) not content with lossy streaming, c) on the road to complexity, and d) simultaneously richer and poorer.

For collectors, digital music means discs or files. Removing the spinning disc from digital playback opens us up to an endless stream of music—a dream come true. While the fulfillment of this dream entails a certain amount of added complexity compared to popping a CD into a player, a music server can offer a nice, relatively simple, one-stop shop.

Of course, any computer can function as a music server, even if computers weren't designed for that purpose. The reason to consider a purpose-built device should be obvious—it's designed to do one thing really well: serve your music.

Melco N1A High Resolution Digital Music Library (\$1999)

In 1975, in Japan, Makoto Maki founded the Maki Engineering Laboratory Company (Melco), "to design and manufacture the finest audio components of the time." Melco's flagship product back in the day was their 3560 Turntable System, which was similar in approach to another 1970s 'table, the original Platine Verdier. Then, at the beginning of the 1980s, Maki put his audio company on hold in order to build Buffalo Inc., which has since become Japan's largest manufacturer of computer peripherals.

Now Melco has been resurrected as a maker of networked audio components, combining Maki's audiophile roots with the high-tech manufacturing chops of Melco Holdings. I love stories of resurrection inspired by passion.

Melco currently offers two products: the N1A and the N1Z, each of which is called a High Resolution Digital Music Library. These servers were designed for music collectors—they won't play from Internet streaming services. One difference between the two models is that the N1A uses hard-disk drives, while the N1Z uses solid-state drives. The subject of this column is the N1A; owing to what Melco describes as licensing issues, the N1Z is not yet available in the US.

Simple Version (Sorta)

The Melco N1A has 4TB of internal storage. If you currently store your music on a USB drive, all you need do is plug it into the N1A, then answer "OK" when it asks if you want to copy the drive's contents to the Melco. You can also drag and drop music into the N1A using a computer: When the N1A is connected to your network (router, switch, or hub) with an Ethernet cable, it'll show up on your network as a shared storage device.

If you want to use a USB DAC to convert the Melco's digital output to analog, just use a USB link to connect your DAC to any of the three USB ports on the N1A's rear panel. If you want to use a network player instead, and have already connected your N1A and player to your network, you're good to go. Melco recommends using the PlugPlayer remote app for iOS and Android devices to operate the N1A, so you'll also want to have an iOS or Android device



Sturdy and workmanlike: Melco's N1A music server.

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to use as a remote.

Once you've connected everything, loaded PlugPlayer, moved your music into the N1A, and used the front-panel controls to tell the N1A where to send your music, you're ready to play. See? Simple.

Sorta.

Less Simple Version

Inside the Melco N1A are two 2TB, low-noise hard-disk drives made by Seagate, configured and delivered as a single drive, which is how I like it. You can also opt to configure these drives as a RAID 0 or RAID 1 array (RAID=redundant array of independent disks), but because a RAID array provides fault tolerance only in the event of disk failure, I recommend sticking with the entire 4TB for your music, and getting an external USB drive for true backup.

The N1A's outputs all reside around back and include three ways for its internal music library to be output in digital form: by connecting one of the rear-mounted USB ports to a USB DAC, by connecting the Ethernet port marked

LAN to your network (router, switch, or hub), or by connecting the Ethernet port marked *Player* directly to your network player. The preferred method obviously depends on whether or not you want to use a USB DAC or a network player. If you opt for the latter, you then need to decide if you want your network player to reside on your network, allowing you to use your favorite Universal Plug and Play (UPnP) remote app to control playback. (Think of UPnP as the language these devices

2.0 port for playing music from a connected USB storage device; an OLED display that shows system and playback data; and four buttons (Back, Enter, Scroll Down, Scroll Up) for accessing the N1A's menu commands, as well as rudimentary playback from internal storage when using a USB DAC. Everything that lights up on the N1A, including the display and LEDs, can be dimmed or shut off.

The N1A runs on Twonky 7 server software, and supports all popular

purchased after that initial transfer. For geographically fortunate¹ customers, Melco's Downloader app allows you to download music you've purchased from highresaudio.com and ototoy.jp directly to the N1A.

The system for this review included my newly acquired Ayre Acoustics AX-5 Twenty integrated amplifier (yeah!) driving a loaner pair of preproduction DeVore Fidelity X speakers. I have music libraries stored on a Synology 412+ NAS and a QNAP HS-210 NAS. DACs and other details divulged below.

The Easy Part

The Melco N1A Buffaloed my combination of MacBook Pro and Synology NAS. It destroyed them, embarrassed them, gave them a good schooling. Music sounded obviously—frighteningly—more refined, more spacious, and more natural through the N1A. End of story. I can't imagine anyone in this universe who does nothing else while listening to music making the same comparison and *not* hearing this difference.

I could torture myself—and you, and everyone else—trying to logically suss out the reasons for this great improvement in sound. Is it X? Or Y? Or XYZ and ABC? To my way of thinking, unless you plan on building your own N1A system, why fret? The proof is in the listening. So I listened to the Melco N1A as a server using a number of DACs, including my reference Auralic Vega (\$3499) and the lovely Metrum Acoustics Musette (\$1399). The differences remained clear as stated above, regardless of which was converting my bits.

I also used the N1A as a NAS feeding a T+A MP 2000 R network player (\$7500), which allowed me to do a few things. I could easily switch from serving up my music via the Melco, a review-sample Antipodes DS server (\$2700 with 1TB HDD), and my NAS (Synology or QNAP). In order of sonic preference, the Melco nudged out the Antipodes DS—quite a feat, seeing as the Antipodes is no slouch in terms of sound. Through the Melco, music sounded that much more crisp, refined, and natural. While the Antipodes does things the Melco doesn't (it has an onboard DAC, for one), the Melco



USB ports on the rear panel are labeled USB3.0, Expansion, and Backup.

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use to talk to one another.) If you choose to connect the N1A directly to your network player, that player must offer a hardware-based means of controlling playback since, it's not accessible from a remote app.

To clarify: In *Player* mode, the N1A assigns an IP address to your network player—you can think of that relationship as a closed mini-network. It's also worth noting that, when the N1A is in *Player* mode, you can't connect to it from your computer to copy files to the Melco's internal storage because it resides on its own closed mini-network. Melco recommends using the N1A's USB input for that purpose. As I understand it, the benefit of *Player* mode is to isolate the N1A from network traffic and noise.

Bits and Bolts

In addition to connecting to a USB DAC, the three rear-panel USB ports offer additional functionality. The port labeled *USB 3.0* is for importing music from external USB storage; *Expansion* is for adding additional USB storage should the N1A's own 4TB not be enough; and *Backup* is for backing up all your music and configuration data to an external USB storage device. Also on the rear panel is an IEC inlet for the included power cord.

On the front panel, from left to right, are: the on/off switch (the boot process takes about 20 seconds); a USB

file formats in PCM resolutions up to 32-bit/384kHz, and DSD up to 5.6MHz. (Melco says that DSD playback will be extended to 11.2MHz in the near future.) If your DAC doesn't do DSD, the N1A can convert DSD to PCM via USB, though this option is unavailable via Ethernet streaming. If you want to play DSD files via Ethernet, you need to install the Miniserver software on the N1A. And if you like to dig into the nitty-gritty, a 57-page owner's manual is available from Melco's website.

Melco's efforts to keep noise out of the data path include a separate, isolated power supply for the light-piped LAN ports, which are entirely electrically isolated by ALT Series Pulse Transformers from TDK. Using an NDK ultra-low-jitter clock, the N1A also reclocks all data before sending it on its way. The N1A's rigid metal case measures 17.2" wide by 2.8" high by 13.9" deep and weighs 15.4 lbs. It sits on wooden footers, and its front panel is a nice chunk of aluminum in black or silver. I find the overall look and feel sturdy and workmanlike—a no-nonsense, bottom-of-the-rack look.

Setting up the N1A and getting music into it was a breeze. I keep a backup of my NAS-based music library on a USB drive, so I simply connected that to the Melco and said "OK." Using my iMac, I also dragged and dropped to the N1A new music

¹ Highresaudio.com offers an English version of the site; most downloads are available world-wide, but restrictions apply in some locations. Ototoy.jp does not offer an English version.



costs \$1500 less.

The Melco pretty much creamed both of my NASes, too, though not as much as it had my MacBook-NAS. Music opened up more, sang out more truly, let me get into it more deeply. I was sighing to solo violin—I really got into Arthur Grumiaux's recording of J.S. Bach's Sonatas and Partitas for Solo Violin (2 CDs, Philips 438 736)—dancing with Tom Waits and the Birthday Party, grooving to the US Girls' *Half Free* (CD, 4AD 3520), and getting all down and funky with Fille Qui Mousse. Jazz was jazzier—Cecil McBee and Jacques Coursil sounded more solid, weighty, and lifelike. The Melco N1A stripped away layers of digital's nastier stuff, including harshness, flatness, and unnaturalness. Niceness!

Using the Melco in Player mode with the T+A doing player duties delivered the most appealing sound of all. But—and it's a *big* but—I can't live without a real graphic user interface. Turning a knob, or tapping Next on a remote, is no way to browse a 1000-plus-album library for this music lover; I could see that kind of behavior leading to some new twitch, like a baseball player waiting for the pitch.

Simply More Musical

I've reviewed a number of music servers, including the Antipodes DS and DX (\$6500), the Aurender S10 (\$6990) and X100L (\$3499), the SOtM sMS-1000SQ (\$3000), Digibit's Aria (\$6995), and more. It has been my experience that the differences between

a stock computer and any of these dedicated servers are varying degrees of improvement of the same aspects of sound: noise floor, dynamics, definition and dimensionality of sound image, microdetail, and, overall, naturalness and degree of engagement (mine).

The Melco N1A is the least expensive server of this bunch, yet I find its sound quality on a par with more expensive models, and in the ballpark with the best costing up to \$6000. If you're looking for a server that sounds better than any stock computer can and you want to keep things simple, think Melco. ■

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