Melco Audio N10 music server and D100 ripper

by Alan Sircom

This is always going to be a bit of a hard sell, but we should be celebrating that we are in the finest times for music servers and streamers. We have finally – in many cases – shaken off the tyranny of 'Mac & DAC' in the high end, and people are buying products that take the music server seriously, even if in many cases 'taking it seriously' actually means little more than a glorified computer, customised to our specifications.

Why a 'hard sell'? Because audiophiles are by nature a conservative lot – there are audiophiles who see the vinyl revival as proof that digital audio was a short-lived fad and on its way out. And there are many who still think the best digital audio can get is the pits and lands of CD. So the idea of looking to the current state of music servers in the positive could be viewed as dangerous radicalism. Nevertheless, the fact is a lot of good audio replay is now coming out of really good and dedicated computer-side audio electronics. And that's where Melco comes in.

For the uninitiated, Melco is a Japanese company that cut its teeth making record players. It diversified some years back and a subsidiary of Melco called Buffalo went on to be hugely successful in making computer server-side products. But Melco and the enthusiasts behind it, never went away.

The company leveraged that experience in making server-side products like network switches and brought this to bear into the audio world, trying to build a product that was uniquely adapted to the demands of the audiophile and not just a tricked-out PC in an expensive box. Of course, the problem then arises that the basic component of a media server is essentially a computer anyway. However, the Network Attached Storage box can teach us that there are dedicated computers for specific tasks that don't need to be fully-fledged PCs running a full operating system and a suite of apps. And Buffalo knows its way around a NAS drive. Once you join those dots, you realise why the Melco line is different to the norm, and that only a company like Melco could make such a device from first principles.

Melco's first and best-known offerings are the N1 series launched in 2014. Offered either with a hard disk or SSD drive in a variety of configurations, the N1 like still holds its position of power in the Melco line-up, and five years on, the products might have undergone a lot of changes to internal capacity and connectivity, it's not hard to see the lineage. The N1 platform will continue long into the future, but that future calls out for ever better products, and the N10 answers that call as a high-end two-chassis music server. ►

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The N10 is sub-divided into two interlinked components: the head unit with built-in storage and the matching power supply. Both are designed to work in a 215mm wide form factor, and the head unit has both newly designed internal electronics hardware and new operating software compared to the N1 models.

In both chassis, the case is made from solid aluminium with matching end cheeks to aid mechanical integrity and freedom from vibration. It also looks pretty good! Beneath that skin is a more complex and rigid internal steel chassis.

The front panel of the head unit has an OLED display and four control buttons. The operating system is configured to be fully navigable through these four buttons, from basic set-up functions like language and time zone options to advanced customisation of player and interface. The OLED walks you through these functions, displaying the track name and data format when in play mode.

Any connected external devices are also confirmed on the OLED. This is a vital function, as the N10 head unit is designed to be a USB and Ethernet hub. The front panel USB port is convenient for connecting either USB drives or USB optical drive to import files or directly play, and playing directly from CD using a USB CD loader such as Melco's own D100, or playing directly from a USB drive; the OLED and buttons give full browse and navigation.

The rear panel has two additional USB ports which allow for more permanent connection of a USB CD loader, or USB HDD for music import or play. There is also an expansion USB port, allowing the internal hard drive to be expanded, either using a generic USB hard drive or the dedicated E100 expansion drive to increase capacity of the N10 without having to futz about with additional settings.

There are also two Ethernet ports. The first is a dedicated Player port that connects directly to a network player or streamer for optimum sound quality. The second Ethernet port accesses the N10's 'higher functions': music transfer, control of the N10 local player from a control App, and for accessing online streaming music services, activating direct music downloads, and firmware updates.

The Head unit contains a small form factor (laptop sized) HDD, specially selected for sonic performance. The HDD is supported on Melco's HS-S2 - Highly Stable Storage System – to limit the influence of vibration. The HDD is mounted on a heavy stainless steel plate for damping and heat-sinking, and there is additional 3mm plate to complete the acoustic isolation. Finally, a newly designed power management system in the head unit ensures stable and reliable operation.

The power supply is housed in a similar case to the head unit (but without the OLED panel) and sits on three isolating feet from TAOC. This power supply features an extensively filtered toroidal transformer (as opposed to switch mode PSUs in many servers). This connects to the main unit by multi-way cable with Neutrik connectors.

To accompany the N10, Melco also supplied a D100 USB optical disc drive. This features 'the latest generation' of CD drive, and USB 3.0 connection to the Melco (or a PC or Mac).

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The ripper itself is a bit of a star in its own right, both in and out of a Melco system. That probably won't make it the door opener (if you are using one to rip to your Mac, you probably won't upgrade to the full Melco experience as a result), but it is fast, efficient, effective, and delivers files that are extremely accurate and entertaining. But it's the N10 that's the headline component.

I last looked at a Melco N1 a few years ago and the software was good, but could do with a bit of a boost. Fast forward to 2019 and the latest software in the N10 (which trickles down to the N1 models) is just that boost. It hasn't materially changed that much (it still relies on a user interface with minimal graphics, so you can end up scrolling through a list if you are not controlling the N10 from third-party (either some kind of control point app – Melco recommend its own app, BubbleUPnP, or Linn Kazoo/Kinsky, or a media renderer). But in a way, the N10 is a back-office server device that migtrated to the front of the house; it's not meant to have a slick interface, it's meant to just do the job.

It does the job beautifully. A server needs to achieve the goal of sending music to playback devices efficiently, and robustly. The Melco does these things, but also makes the music sound great, too. It's a really excellent storage device that works equally well as a USB source and as the music server on a network. I marginally preferred the sound of Ethernet, because it's a little more bold and direct, but the differences are minor.

Most importantly, however, the difference in quality between the Melco and most servers (and especially if you are still using a computer as source) is 'significant'. There is a lot more air around the music, a lot more space energy to the music and a lot more impact to the music. Depending on what you use, the difference could be between good sound and remarkable sound.

There are some operational issues that need discussing. First, although the days of a Melco product being 'picky' about connectivity are behind the brand, the way the Melco connects with other devices can get in the way of delivering gapless playback. This generally means flipping a digital switch in the DAC or renderer. A more important omission – and one that doesn't look like it can be resolved any day soon – is that Melco is not Roon Ready.

TECHNICAL SPECIFICATIONS

Melco N10

Type: Music Server/Player
Capacity: 3TB HDD (×1)
Connections: USB2.0 type A Front ×1, Rear ×2, Gigabit Ethernet port × 2
File types supported: DSF, DFF, FLAC, WAV, ALAC, AIFF, AAC, MP3, WMA, OGG, LPCM (Server), DSF, DFF, FLAC, WAV, ALAC, AIFF, AAC (player)
Sampling rate: 44.1K, 48K, 88.2K, 96K, 176K, 192K, 384K, 2.8M, 5.6M, 11.3M
Bit rate: 16-32bit (PCM), 1bit (DSD)
Finish: Silver
Dimensions (W×H×D): 215 × 69 × 269mm (main unit), 215 × 61 × 273mm (PSU)
Weight: 3.5kg (main unit), 5kg (PSU)
Price: £6,750

Melco D100

Type: CD ripper
Discs supported: CD (CD-DA disc read only) DVD/BD (DVD/BD data disc read only)
Connections: USB 3.0 Type A × 1 "TO DEVICE", USB 3.0 Type B × 1 "TO HOST"
Compatible with: DELA N1 series, Windows 10, Mac OS
Finish: Silver
Dimensions (W×H×D): 215 × 61 × 269 mm
Weight: 3.5kg
Price: £999

Manufactured by: Melco Audio
URL: melco-audio.com

Distributed by: Kog Audio
URL: kogaudio.com
Tel: +44 (0)24 7722 0650

I also think it's best to think of the Melco concept as the best home music server there is. Of course, connecting to Qobuz, Tidal, or Spotify are quite easy to implement through the Melco, too. But first this is a dedicated music server for your own collection of music, and the N10 is the best that collection of music can sound. It replaces almost anything that runs from a conventional computer, no matter how 'hi-fi' that computer is trying to look. +