

Audio overkill? Some question benefits of 'high-res' music

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In this Jan. 7, 2015, file photo, Musician Neil Young speaks during a session at the International CES, in Las Vegas. Advocates like Neil Young and major record labels say the format that's the high end of what's known as "high-resolution" audio restores textures, nuances and tones that listeners sacrifice when opting for the convenience of music compressed into formats like MP3s or Apple's AAC. (AP Photo/John Locher, File)

Its backers say it does for music lovers what ultra high-definition television has done for couch potatoes.

It's a digital format that packs nearly seven times the data found on CDs, touted as producing crystal-clear sounds with a sharpness that'll blow consumers away. Advocates like Neil Young and major record labels say the format that's the high end of what's known as "high-resolution" audio restores textures, nuances and tones that listeners sacrifice when opting for the convenience of music compressed into formats like MP3s or Apple's AAC.

But some recording-technology experts say this super high-res format—known by its 192 kHz, 24-bit technical specs—is pricy digital overkill, an oversized "bit bucket" that contains sounds only dogs or dolphins can truly enjoy.

Some cynics say the push to high-res audio is just another attempt to get consumers to rebuy music they already own.

Marc de Oliveira did just that in February when he bought Bob Dylan's latest album, "Shadows In The Night" from the Young-backed PonoMusic store. Already having bought the CD from a physical record store, the Copenhagen-based 49-year-old IT consultant splurged on a 24-bit version, hoping to feel more present in the room where Dylan recorded.

Instead, he stumbled on a blog that analyzed the file and found no more than 16 of the 24 bits were used, the same as on the CD. After months of de Oliveira trying to get a refund, Pono's Vice President of Content Acquisition Bruce Botnick replied to his posts saying that Dylan himself liked sample CDs cut in the studio. Engineers mastered the album from those discs, forever locking this particular release at the lower specs.

Still, that hasn't changed what Pono is charging for the file, \$17.99, versus the physical CD, which costs \$9.70 on Amazon.

"They should have probably been more active about not accepting that as a real 24-bit file," de Oliveira said.

More than 90 percent of the PonoMusic store is represented essentially by digital copies, or rips, of CDs, Botnick acknowledged to The Associated Press in an interview at his Ojai, California-based studio. To be fair, they're labeled as such. And those files are still in a higher category than AAC files or MP3s, which eliminate some sounds in the compression process.

But of the other albums on PonoMusic labeled higher-than-CD quality, Botnick says about 70 to 75 percent "we know are real," meaning they've researched the recording history to verify the file has more information than just a CD rip or has some other quirk in the original recording justifying a mixed or lower resolution.

He said efforts are being made to further assure consumers of the "provenance," or origins of recordings, and how they got to be labeled high-resolution.

"It's a real fact-finding job" and "it's going to take some time" to handle the thousands of albums in question, he said. Until then, it's a case of "buyer beware," he said.

And while audiophiles may be aware of the rarified, often hard-to-detect benefits of the high-resolution files, average music lovers can easily over-value the claims made by backers, according to Mark Waldrep, a recording engineer, college professor and writer of the "Real HD-Audio" blog.

Studios are re-releasing older recordings in giant data containers that are sometimes barely merited, he says.

That conclusion was reinforced when he analyzed high-res Warner Music re-releases of Joni Mitchell's "All I Want" from the 1971 album "Blue" and "Ain't No Way" from Aretha Franklin's 1968 album "Lady Soul," which The Associated Press bought from the PonoMusic store.

"You're buying a container that's really 50-60 or even 70 percent zeroes. It's all empty information," he said. "The frequencies you're buying up here are either all zeroes, or hiss, which contributes nothing to the enjoyment of the music, unless you're into hiss."

And very few, if any new albums, are being made in the super-high resolution specs that Pono is touting.

Giles Martin, the Grammy-winning producer of the "Love" soundtrack for The Beatles-Cirque du Soleil show in Las Vegas, says the highest fidelity he records at is 96 kHz, 24 bits, after which there's no benefit in boosting the playback specs. "You can't upscale audio," he says. "There's a compromise in having huge high-res files that don't sound any different than other ones."

From the record labels' point of view, part of the re-mastering process is simply to preserve aging analog tapes at the highest practical digital format.

George Lydecker, a [vice president](#) of engineering and archiving at Warner Music, says a CD-specification release of Franklin's "Lady Soul" wouldn't have been as accurate a reproduction partly because placing a necessary filter at the lower frequency required by CDs creates some distortion. Instead, the 192 kHz, 24-bit file that was released "is like standing in the studio live and hearing Aretha belt it out."

The album goes for \$17.99 on the PonoMusic store. A CD can be had for \$4.99 on Amazon.

While not all people will be able to hear a difference, some will.

"For the first time, you can get the file (that was) approved by the mastering engineer in the studio," says Jim Belcher, Universal Music's vice president of technology and production. "And for a lot of people that doesn't make sense. For a segment of the market that really cares about audio quality, they want that."

And that's the other thing. Even with a \$400 PonoPlayer or some other high-end playback device like a Sony Hi-Res Walkman or Astell and Kern AK100II, or even the latest smartphones from Samsung and Apple, audiophiles who want to hear the true benefits of high-resolution audio should also have headphones or speakers capable of playing back those high frequencies that only few humans can hear. In some cases, that could require a headphone amplifier.

John Siau, director of engineering at high-end equipment maker Benchmark Audio, argues that consumers are fooling themselves if they believe they can appreciate high-res audio without the proper high-end equipment.

"There's no point in having high-resolution playback formats if your playback equipment can't even match CD quality," he says.

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