



High-Res Audio's Future Lies Outside the (Jewel) Box

How to Share Your Music with Fans in High-Res

Just 15 years ago, Airshow still received clients' mixes on DAT media. Now, most mixes are delivered electronically as 24-bit/96kHz files, having been "born HD," that is, recorded and mixed at high resolution. Artists and labels are now sharing high-res music with fans.

Here at Airshow we love hearing music in a high quality studio environment, whether it's 24/96, 24/192 (or even sometimes DSD resolution).

New technologies drive the digital audio world to change rapidly. Formats with great potential like Super Audio CD and DVD-Audio failed to reach critical mass. These days, Blu-ray players are ubiquitous, but costly authoring and lack of retail visibility restrict Blu-ray to a niche (but great-sounding) consumer audio format ("Pure Audio Blu-ray").

Fortunately, there are a growing number of ways that listeners can hear great-sounding high-res audio. With the resurgence of vinyl, music lovers get to experience an analog playback medium that originates from 24-bit source files. Additionally, through the most popular site for buying music online, Apple's "Mastered for iTunes" offers fans a way to hear compressed files created from high-res masters. Changes in technology (faster download speeds, increased server space, and greater content storage on devices) also allow for easier accommodation of larger file types, thus increasing demand for digital distribution services that sell music in high-resolution formats. All of these avenues allow music to sound closer than ever before to the way we hear it working in our studios.

High-res Audio & Vinyl Records

As most bands and music fans know, vinyl record sales have been on the rise. Nielsen reported 4.6 million LP sales in 2012 and projects over eight million in 2014. Concert-goers love to pick up (sometimes limited edition) copies of vinyl releases from the merch table of touring bands; hip-hop and EDM DJs treasure its playability in clubs; labels earn new followers by issuing (and reissuing) their releases on wax; and audiophiles appreciate its one-of-a-kind sound.

At Airshow, we team with vinyl experts to provide a seamless post-production and cutting process for your vinyl release. Mastering for a vinyl release often differs from CD mastering. For a vinyl project, we create a 24-bit vinyl master, sometimes modifying EQ and dynamic processing in order to make it sound the best it can for the

vinyl format. In some instances, a different song order may be necessary in order to maximize sound quality on each side of the vinyl.

For recommended side lengths for various disc sizes and speeds please see our blog post, "[How to Plan a Vinyl Release Without Delays and Headaches](#)"

24-bit vinyl masters for each side of the record at the highest available sample rate (44.1, 48, 88.2, 96, or 192 kHz) are prepared and delivered to the lacquer master cutter. Airshow works with a select group of cutting engineers and pressing plants known for the quality of their work and fair pricing. (Contact us to get a list of suppliers whose work we trust.)

Once the cutting engineer is selected, Airshow sends the master file to the cutting studio. After a lacquer is cut, you have the option to have test lacquers made. Test lacquers are like the reference audio that Airshow gave you for approval; it's your opportunity to review the cutting engineer's work, to request revisions, or to confirm that it's to your liking. If you prefer, you can have your test lacquer sent to Airshow so your mastering engineer can quality check it, auditioning it in the same listening environment where your master was created. Of course, you may elect to save time – and money – by skipping the test lacquer step. For a discussion of the pros and cons of test lacquer quality control, please see our blog post, "[Quality Control: What and When.](#)"

Once the test lacquer is approved (or if you choose not to get test lacquers), the cutting engineer sends the lacquer master to the pressing plant. (Airshow can provide a list of pressing plants whose work we trust.) The final quality control step in a vinyl release is listening to a test pressing to ensure that the pressing matches the audio approved at the cutting stage. We can help with quality control here, too; let us know if you'd like us to listen to your test presses in our studio.

After the test pressing is approved (and artwork is furnished), pressing plants are quoting turnaround times of ten to 12 weeks for finished product.

Mastered for iTunes

“Mastered for iTunes” (or “MFiT”) is an initiative by Apple to improve the quality of the compressed AAC files sold in their store by identifying selections that were encoded from 24-bit master sources.

Before your music gets delivered to iTunes, we’ll take your 24-bit master and check it against Apple’s MFiT standards. (All Airshow engineers are certified by Apple to prepare MFiT files.) Apple then encodes the MFiT files as AAC. The AAC format is still lossy, but since MFiT files are prepared from a high-res master and optimized for AAC, the result will be closer to the original recording. An AAC that is made from a 24-bit high-res MFiT master will naturally sound better on iTunes.

A benefit for clients interested in submitting MFiT masters to iTunes is that the same 24-bit master can be submitted to HD retailers in the digital marketplace.

HD Download Retailers

Music lovers find their high-res (HD) downloadable files at specialty online retailers like iTrax, HD Tracks, Livedownloads.com, Downloads Now! (and soon, Pono) and even directly from artists on Bandcamp and CD Baby (which now offers FLAC files for some releases). The development of portable music players with capacity to hold large files and the ability to play back high-res audio are increasing the market for listeners eager to listen to recordings as they were meant to be heard. As one would expect, the HD download stores are heavily stocked with audiophiles’ favorite genres and independent label products. The stores work with labels and content aggregators to identify music releases that are analog or “born HD” – that is, not up-sampled from 16/44 – for their savvy customers, who pay a premium over iTunes and Amazon MP3 prices for their music in high-res.

Direct to Fan Sales of HD Downloads

Independent musicians have myriad channels for selling compressed downloads; for those who want to sell high-resolution

files directly to their fans, Bandcamp remains perhaps the most well-known site. Its indie-friendly platform offers customers the choice of high-quality, lossless audio downloads like FLAC and ALAC, as well as compressed formats. We developed a table of aggregators and retailers, and the highest-quality files they can accept; be sure to check with any party on the list to see what file types they are currently working with. Please see our blog post, [“Is It Time To Rethink Your Master Parts Order?”](#)

Airshow can help make sure that the high quality and resolution that you captured in your studio or live recording is kept intact in the mastering process by preparing 24-bit masters at the highest resolution possible. We can deliver these versions, in addition to your still-relevant CD master, at a minimal additional cost.

With most music releases “born HD” and a complete high-res workflow from recording through mastering, very little effort is required to embrace high-res retail opportunities. We used to call making a high-res master archive a way to “future proof” a recording; with the range of affordable HD retail options, the future is here.

Please let your Airshow studio manager or mastering engineer know if you wish to add high-res options to your release. We’ll factor your requirements into our workflow and schedule, so you have the benefits of Airshow’s premium services.

The Airshow blog posts we referred to in this article:

[“How to Plan a Vinyl Release Without Delays and Headaches”](#)

[“Quality Control: What and When”](#)

[“Is It Time To Rethink Your Master Parts Order?”](#)

Related Posts:

[“Multi-tasking Masters: Vinyl + Mastered for iTunes + HDTracks”](#)

[“Airshow Masters For iTunes”](#)