

MQA - Is the Tide Turning?

A RECENT TIDAL ANNOUNCEMENT SUGGESTS THAT MQA MAY FINALLY BE COMING OF AGE – OR IS IT JUST AN IRRELEVANCE?

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One of the slowest burns in hi-fi – that’s probably the best way to describe MQA. Even at the time of its official launch, halfway up London’s Shard back in December 2014 (was it really that long ago?), it seemed like the idea had already been around for quite a while. Since then it has been somewhat like the fuse on a firework that sputters into life momentarily just when you think nothing’s going to happen, then goes back to smouldering away, making one ponder the instruction on the box not to go back and investigate once lit.

Having sat through several demonstrations of MQA in the intervening period, and had meetings with those involved in the project, I was beginning to think that faltering start was something of a pity – after all (to extend the firework metaphor close to breaking-point) the ‘picture on the box’ looked very appealing. Here was a means of not only delivering high-resolution audio without all the usual bandwidth problems but – provided those along the chain played things straight – guaranteeing to the end-user that the files received would sound as the artist or producer intended, and hadn’t been mucked about with simply to make a few extra quid.

That last point – and the reason for the ‘A’ in the system’s Master Quality Authenticated name – is a salient one, simply because more than a few ‘hi-res’ releases have been revealed to be little more than an upsample of the CD-quality versions, offering the listener nothing extra for the additional cost. Every time that happens, not only is the consumer being ripped off, but also another brick is kicked out of the sometimes shaky platform on which the whole hi-res audio idea stands.

Palming off upsamples on unsuspecting listeners is playing into the hands of those who’d have you believe that just about everything in modern audio is nothing more than a scam. And of course customers now have readily available tools such as the excellent MusicScope to find out just what a file really is. If there’s a brickwall drop in frequency response somewhere just after 20kHz, it’s all a bit obvious, while a lack of dynamic range isn’t all that promising either.

The MQA offering promises not only to authenticate the recording as being true to the studio original, but also, through what the company

calls ‘audio origami’, to pack it down such that a hi-res file takes up no more storage space – or more to the point, transmission bandwidth – than a conventional CD-quality example.

Even better, the process is back-compatible: play an MQA-encoded hi-res file via conventional hardware – a network player, or a computer connected to a DAC, say – and it will play in CD resolution; play it through an MQA-compatible DAC or other hardware and it will ‘unfold’ to deliver the ‘full fat’ version.

Now, at last and after all those promises, it seems that MQA is beginning to deliver, in that more products are becoming available with the decoding built-in, beyond the few obvious Meridian offerings (the British audio company’s Bob Stuart being the driving force behind MQA). Already the near-twin Onkyo *DP-X1* and Pioneer *XDP-100R* hi-res personal audio players offer MQA compatibility, and to these ears make a very strong case for the format, while the Bluesound multiroom audio system is also MQA-capable, and Lenbrook stablemate NAD also has plans in this direction. Others said to be onboard include a number of manufacturers in the mid- and high-end sectors: Aurender, Bel Canto and MSB are among those signed up. At the time of writing an upgrade for the Audioquest *DragonFly Red* and *Black* pocket DAC/headphone amps is said to be imminent, as is one to make the popular Audirvana software player MQA-compliant, and an upgrade to the Technics *ST-G30* server/player.

When it comes to finding things to play, some content is available for download from a number of sources, including Norway’s 2L label, Warner Bros, and the 7 Digital, Onkyo Music and Hi Res Audio stores. For example, 2L has been pioneering the adoption of MQA, adding it to the – sometimes mind-boggling – range of formats in which its music is offered.

2L also offers some free MQA tracks for download, as part of the Test Bench section of its website (2L.no), along with the same tracks in hi-res FLAC, CD quality and all sorts of other formats. So there’s scope for new owners of MQA hardware, or even those without, but wanting to check how ‘folded’ files sound at undecoded – *ie* CD – resolution.



However, that's not the big news for MQA: instead it's what looks like the 'ah, now it makes sense' debut of the format, in that there's now a selection of 'Masters' albums, mainly from the WB catalogue, available to Tidal subscribers with the premium 'hi-fi' package. Even better, users don't need an MQA-enabled DAC or player in order to have the choice between the CD-quality stream and a hi-res one using the MQA encoding – it's all done in the Tidal desktop software.

What's more, a recent announcement from MQA and Universal Music promises even more titles will be available for this kind of service: on February 16 it was revealed that the two companies have entered into a multi-year agreement that will encode UMG's extensive catalogue of master recordings in MQA. (UMG encompasses labels such as A&M, Blue Note, Capitol, Decca, Deutsche Grammophon, EMI, Island, Verve and Virgin.)

Michael Nash, UMG's Executive VP of Digital Media Strategy, points out that while Tidal may be the first to offer this service, it's unlikely to be alone for long; he said: "the promise of hi-res audio streaming is becoming a reality, with one service already in the market and several more committed to launching this year. We're looking forward to [making] our industry-leading roster of artists and recordings available to music fans in the highest quality possible."

So why does this mean MQA suddenly makes sense? Well, while MQA reduces the size of downloaded files – and thus the time to download them, making it as fast to get a hi-res version of a track as it the CD version. But that's hardly the real attraction of the MQA 'fold down'. After all, storage is hardly expensive these days, despite the best efforts of various natural disasters and recent currency shifts. And although it's by no means universal, most of us now have access to some kind of fast broadband. (The latest OFCOM figures I could find suggest the average speed in the UK was 28.9Mbps in 2016, up from 22.8Mbps

the previous year. In the US it's something approaching double that.)

Even with slower speeds, file size for downloads isn't critical – it just means they take longer, and most will be patient enough to wait a while for a large download to take place when buying hi-res music. Even with the ultrafast 200Mbps+ link I have from Virgin, there are times when pulling down an album in DSD256 – some of which run to more than 10GB – takes a little while.

No, the major advantage of the smaller file sizes made possible through MQA (even if one is lucky enough to have a healthy enough broadband speed to allow the efficient downloading of 'full fat' files) is the ease with which hi-res music content can be streamed in real-time – which is just what Tidal is doing with its new Masters offering. You see, despite a good internet connection, even CD-quality streaming can be prone to buffering and dropouts, especially in busy households where other family members may be hammering the available bandwidth at the same time. And that can make trying to listen to music a somewhat frustrating experience.

So it's best to get your streaming service as far from the limitations of your connection as possible. While CD-quality only takes about 1400kbps, trying to listen at 96kHz/24-bit ups that to 4600kbps, and 192kHz/24-bit doubles that again. It's for that reason that most home network music solutions suggest you stick to a wired connection for anything above CD quality, to avoid dropouts as the domestic Wi-Fi struggles. For the same reason it makes sense to keep the pressure off a broadband connection for the best quality.

Just to be clear, I'm not talking sound quality here, but stability of signal and streaming – having the music stop and stutter is far more annoying than any loss of sound quality would ever be!

So that's what MQA delivers in this Tidal application, which rolled out at the beginning of this year with the first launch of Masters titles – and even better is that users don't need an MQA-capable DAC in order to experience what the titles on offer can deliver, as decoding is built into the Tidal desktop application, allowing the 'unfolded' files to be fed from a computer to a standard hi-res capable DAC.

Well, almost: while the Tidal platform will do the 'first unfold', taking files up to 96kHz/24bit (which after all will be enough for most users listening to their music through a DAC or plugged into an amp with a digital input), to do the complete transformation of 192kHz/24bit files back to their original form will need an MQA-capable device between computer and hi-fi system.

To make that possible the Tidal app offers an ‘MQA passthrough’ option, handing over the decoding to an external MQA device, and even using a simple (or at least highly affordable) MQA DAC, such as the little Meridian *Explorer2*, which sells for around £200. And it’s clear that the ‘passed through’ version delivers a more satisfying musical experience than the admittedly very good Tidal ‘unfold’. Whether playing music through headphones using the Meridian’s built-in amplifier, or connected as ‘line-out’, the effects are obvious on everything from mainstream pop/rock to vintage pre-digital-era classical music, including the 2L albums on Tidal.

However, there’s another side to the whole MQA thing, in the form of an extensive blog published by Linn around the same time that the Tidal rollout was attracting a lot of attention. Linn has form in this respect, having previously dismissed the DSD ‘revival’ as being irrelevant (despite the support of so many other brands) in a 2013 blog post: ‘*Why DSD is a terrible idea in 2013*’ (<http://forums.linn.co.uk/bb/showthread.php?tid=23096>). (And even though its record label still offers its titles as hybrid SACDs.)

Its latest proclamation is even more hard-hitting and extensive: in a February blog post entitled *MQA is Bad For Music. Here’s Why*. (www.linn.co.uk/blog/mqa-is-bad-for-music), Linn’s digital marketer Jim Collinson argues against the Meridian-developed format, not on technical grounds to do with what he describes in his opening paragraph as ‘MQA’s questionable claims’, but rather what he sees as the implications of the whole MQA delivery chain on the music industry and its consumers.

It’s a pretty eye-watering piece, pulling no punches in its attack: Collinson says MQA is: “*an attempt to not simply sell the same content again at a higher margin, or to maintain audio quality in streaming ecosystems: it is an outright land grab. It’s an attempt to control and extract revenue from every part of the supply chain, and not just over content that they hold the rights for. It really is quite extraordinary.*”

He then goes on to look at every step of the chain from recording to streaming services and hi-fi manufacturers, and finally the consumer, and at almost each of the nine steps he lays out a flash appears saying ‘\$\$\$ MQA gets paid \$\$\$’. He also compares what he sees MQA doing as akin to the influence that exacted by Amazon and Netflix over the streaming movie/TV business, to the extent of becoming content providers themselves, cutting the traditional studios out of the equation.

What MQA is doing, he says, is creating ‘a supply chain monopoly’ – but he’s not done yet. The Quality Assurance bit of the offering, he says,

challenges the MQA assertion that there is no Digital Rights Management – copy protection, in other words – on MQA files. As he puts it: “*there is a form of fingerprinting in the file that will check that at each stage of the production and distribution process MQA has been paid. Now, ostensibly, this is a quality assurance check for the customer: if the little MQA light comes on, then I know that this file is legit.*”

However, he continues: “*in reality this is actually a quite masterful way of painting every other recording as inferior—when exactly the opposite may be the case—unless they are produced, distributed, downloaded and played via their approved supply chain.*”

From this, he develops the argument that: “*It also doesn’t require too much imagination to envisage a situation where, in the name of thwarting piracy, music players will only play MQA streams. Or perhaps they’ll insert ads before non-MQA content. None of this is proposed by the company, and in fact we are assured that they have no plans to do this. Perhaps we should give them the benefit of the doubt? But once the supply chain is dominated, the technology certainly gives them a way to achieve it, and shareholders want returns.*”

Finally, he argues that the increased costs associated with MQA will put a heavy burden on artists and independent labels: “*A self-producing artist, or small project recording studio, now has to work through a larger MQA equipped mastering studio and bear the costs and constraints. Oh, and artists that serve music direct to fans via their own website or direct at gigs? Well, they’re cut out too: the piper has to be paid.*”

Comparing MQA to the SACD format “*which had similarly onerous supply chain requirements*” and so “*struggled and died*” (that’s the one in which Linn still releases its music titles, remember), he looks forward instead to a future in which: “*the free, readily available, high quality, open-source alternatives will win out*”.

Told you it was eye-watering stuff. Not surprisingly, it has stirred up a lot of debate on the usual forums.

So is MQA a format doomed to failure, or a good idea whose day has finally come? Well, for now the catalogue seems to be growing on Tidal, with room for more expansion with both Warner Bros and UMG onboard. And as someone put it to me recently: “*there’s stuff there you’d actually want to listen to: it’s not all obscure jazz by people you’ve never heard of.*”

The ability of the audio industry to support multiple formats has plenty of form, going all the way back to different LP systems back in the early days, so it’s going to be an interesting ride seeing whether MQA really will turn out to be the ‘Next Big Thing’, or if it’s destined to be no more than a footnote in hi-fi history.

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