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#### INTRODUCTION

Imagine being present at the original studio performance of your favourite recording artist. Every nuance, every subtlety, every tiny drop of emotion delivered to your ears in all its intricate detail.

This is Master Quality Authenticated – or MQA.



## STUDIO-QUALITY SOUND YOU CAN STREAM OR DOWNLOAD

MQA is an award-winning British technology that delivers the sound of the studio. The master MQA file is fully authenticated and is small enough to stream, while also being backward compatible, so you can play MQA music on any device.

MQA technology is licensed by labels, music services and hardware manufacturers worldwide.



Discover the incredible story of MQA inventor Bob Stuart



Legendary mastering engineer Bob Ludwig talks about MQA



A quick overview of the benefits and technology behind MQA



UK artist Jake Isaac hears his music in MQA for the first time



Leading mastering engineers discuss the impact of MQA within music production



First time reactions to their music in MQA from US duo Smoke Season





**HOW MQA WORKS** 

## A BREAKTHROUGH BORNE FROM SCIENCE

Our hearing is incredibly adept at determining where a sound is coming from. This timing sensitivity evolved to help us survive in the natural world. As sounds reach us, microseconds apart, our brains build a 3D sonic 'picture'.

Similarly at a live performance, we're able to position the individual instruments. It's why live music feels so powerful and emotive, and why recorded music feels flat in comparison.

MQA captures this timing information from the master, so it feels like you're at the original performance.



#### **HOW MQA WORKS**

## 1. CLEANING THE RECORDING

When an analogue sound is converted into a digital signal, temporal 'blurring' occurs and as a result our ears can't tell where individual sounds are coming from. MQA is able to clean up this distortion to create a truly accurate 3D soundstage unlike anything you've ever heard.

Discover the detail behind temporal blurring (>)



## 2. PACKAGING THE SOUND

Once the recording has been de-blurred, MQA uses a process we call 'Music Origami' that cleverly makes a large 24-bit file manageable and compatible to any service or playback device. On an ordinary player, MQA will play at better than CD quality. With an MQA decoder the full, rich studio sound is unfolded.

See how music origami works (▷)





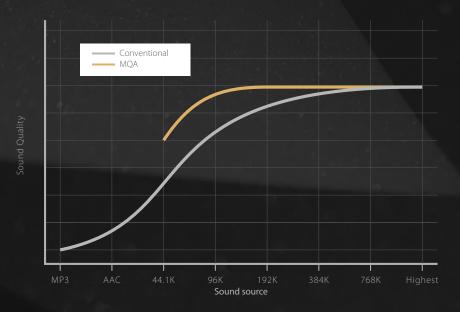
#### THE BENEFITS OF MQA

# MASTER-QUALITY SOUND: CD-SIZE STREAM

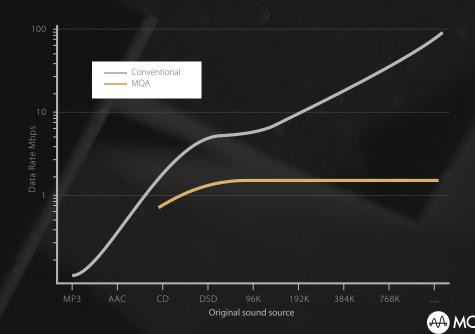
MQA achieves the seemingly impossible – studio-quality sound in a file that's small enough to stream.

With a data rate of under 2Mbps (little larger than that required for a CD-quality file), MQA delivers the sound of the original master – with a level of sound quality that exceeds that of recordings made with the highest sample rates commonly in use today.

#### **HIGHER SOUND QUALITY**



#### LOWER DATA RATE



### LISTEN TO MQA

#### What to listen for

When listening to MQA music, note the clarity of the recording, which enables you to identify individual instruments and voices more easily. Be aware of the way MQA renders the space of the venue, and how this contributes to the sound – so, for example, you can distinguish an expansive concert hall from a more intimate setting. Some listeners refer to the "warmth" of the music or describe it as "natural", "rich" or "vivid", because MQA recreates the sound of the original performance. Ultimately, the recording should draw you in and be easy to listen to.

#### How it works

MQA captures the original performance, then folds it into a file small enough to stream or download. The MQA file subsequently 'unfolds' and, depending on the device capability, delivers the best possible listening experience. <u>View</u> the different levels of playback.

#### Explore

Here is a page of links to our current partners <a href="http://www.mqa.co.uk/customer/our-partners">http://www.mqa.co.uk/customer/our-partners</a>.

#### Stream

• In partnership with MQA, **TIDAL** delivers master quality audio recordings directly from the source to HiFi members. All you need is a TIDAL HiFi membership to access thousands of master quality albums via the desktop

- application. View "What's New" and select "Masters" in the Albums section. http://tidal.com/masters
- Home of live music for some of the largest touring artists in the world,
  nugs.net, has launched the first-ever iOS implementation of MQA.
  Subscribers to nugs.net's HiFi tier worldwide can now enjoy native MQA
  playback of thousands of full-length concerts on iOS devices. <a href="http://nugs.net/">http://nugs.net/</a>
- Korean hi-res music service, **Groovers**, was the first streaming service to showcase MQA on mobile. Late 2017, in association with LG, Groovers launched the offering initially to LG V30 smartphone owners, the world's first global MQA-enabled handset. http://www.groovers.kr/main

#### **Download**

- Hi-res music download store, **Onkyo Music**, is live in the UK, US and Germany offering a growing collection of MQA recordings. <a href="https://www.onkyomusic.com/GB/mga">https://www.onkyomusic.com/GB/mga</a>
- Japan-based **e-onkyo music** is delivering an expanding selection of MQA tracks. <a href="http://www.e-onkyo.com/music/">http://www.e-onkyo.com/music/</a>
- Music captured by the multi-Grammy nominated **2L** label, features Norwegian composers and performers, and an international repertoire reflected in a Nordic atmosphere. All new recordings are made with MQA in mind and the "2L Testbench" includes free downloads to compare recordings in MQA and alternative formats. http://www.2l.no/



## WHAT THEY SAY ABOUT MQA

**Eric Boulanger**, classically-trained violinist, founder and award-winning mastering engineer at The Bakery in Los Angeles:

"MQA will be the first opportunity, in the history of recorded music, to directly link the music listener to the mastering studio, revolutionising my job and its importance."

**Alan Silverman**, Grammy®-Award-winning co-producer, mix engineer and mastering engineer, comments on *When I Go*, sung by Judy Collins with Willie Nelson, from the 2015 album *Strangers Again*:

"I've just compared the MQA playback with my original 88.2k 24-bit master and find the MQA to be mystifyingly more satisfying, and not by just a subtle shade. Listening to Willie and Judy, their voices sound much more real, at the same time, they have a textural filigree and detail of tone that I am not hearing in the original master! The same holds for the banjo and the subtle electric guitar in the right channel. I am delighted and extremely enthusiastic about the MQA process."

**Morten Lindberg**, Producer and founder, Lindberg Lyd (2L), discusses the results of the 'white glove' process used on key recordings:

"What I experienced with MQA was that detailed focus on the small things that over time accumulate into a very, very emotional experience." **George Massenburg**, inventor, producer, engineer and educator at McGill University in Montreal shares his views on MQA:

"The ability to share our work and connect has been so deeply compromised in the last 35 years, that I had almost given up. I have been deeply impressed by the performance of MQA and deeply impressed with the technology... I'm sold, I think this is the future... MQA gives me a reason to go back in the studio."

**Jake Isaac**, UK artist, on hearing his song *Better This Way* in MQA for the first time: "With MQA I feel like I've been exposed to a bigger canvas, it feels like there's space."

**Reiji Asakura**, Japan's renowned audiovisual critic and writer, describes the difference he hears when listening to recordings from Mick Sawaguchi's UNAMAS catalogue:

"MQA breathes new life into music! Having personally attended Mick's recording sessions, I can confidently say that listening to the MQA version is like re-living the moment music was created in the studio. It really is amazing how MQA makes Mick's high quality recordings sound even more vivid."





## AN INTRODUCTION TO MQA

If you would like to know more about MQA or you have any questions, please e-mail us at <a href="mailto:info@mqa.co.uk">info@mqa.co.uk</a>

