

MQA_HPM_CS131 Headphone AMP

MQA Full Decoder, Hi-Res Quality, XMOS Processor

Now there are more music lovers and HiFi enthusiasts who want to get a better listening experience on their cell phones, however, in reality, the use is often hindered by the following reasons:

- The phone only has Type-C/Lighting interface, lack of headphone jack, and no built-in Hi-Res sound card
- Limited device storage space/network bandwidth, unable to store/play too much high bit rate HD audio online
- Traditional HiFi decoder is large, inconvenient to carry outside, the common portable DACs sound quality and can not meet the requirements of HiFi enthusiasts



A small MQA Headphone AMP connected to the phone can effectively meet the user's needs. MQA_HPM_CS131 uses UAC2.0 asynchronous transmission mode with external clock, which makes its clock jitter very low. Using MQA_HPM_CS131 to connect the phone to the headphones via Type-C, users can get high quality Hi-Res music on the go without sacrificing portability.

MQA_HPM_CS131 supports MQA Full Decoder. MQA encoding technology compresses the file size to near CD-level size by folding and compressing the original recording while retaining Hi-Res audio information. MQA_HPM_CS131 fully (Full Decoder) unfolds MQA audio by MQA decoding algorithm to restore high sample rate audio and provide richer spectrum information.

- The MQA_HPM_CS131 has been certified by MQA and is suitable for customers iterating on existing portable DACs products or looking to enter the HiFi community.

Features

MQA Full Decoder **Unfolding the audio files to deliver the highest possible sound quality**



MQA (Master Quality Authenticated) is a breakthrough audio technology that enables music lovers to receive master-quality recordings streamed to the highest quality audio with minimal space/bandwidth cost.

The MQA_HPM_CS131 uses MQA technology to receive and decode MQA audio, and supports full MQA decoder, enabling maximum mastering level audio restoration and unfolding up to 384kHz sample rate.

Hi-Res Quality

Supporting multiple audio stream formats with CS43131 DAC chip



In addition to MQA full decoder, MQA_HPM_CS131 supports multiple Hi-Res audio stream formats up to PCM 32bit/384kHz and Native DSD256.

Meanwhile, MQA_HPM_CS131 uses CS43131 as the DAC decoder chip, with 123dB SNR and a thrust of up to 60mW.

XMOS Processor

Using the latest XMOS processor to provide a Bit-perfect listening experience

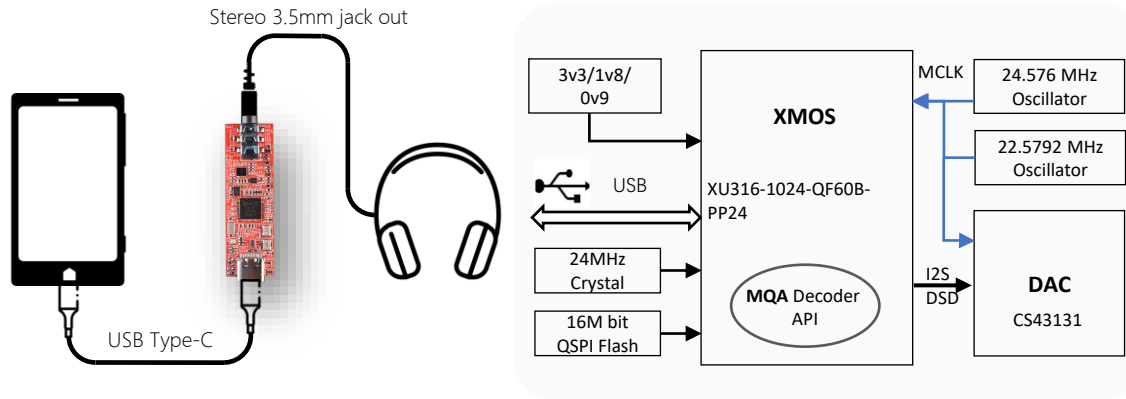


The MQA_HPM_CS131 uses XMOS' latest processor XU316-1024-QF60B-PP24, a new IC that provides 16 Logical Cores with a maximum speed of 2400 MIPS. It supports MQA Full Decoder, UAC2.0 asynchronous transmission, and uses independent crystals as the audio clock source to achieve low audio jitter and a bit-perfect listening experience.



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Application Diagram



Specifications

Supported Formats

- PCM 44.1KHz~384KHz/32bit
- DSD64~DSD256
- MQA Full Decoder

Audio Specifications

- THD+N: 0.0005%/0.0006% (60mW@32Ω)
- SNR: 122dB/123dB
- Rated power: 62.17mW/61.75mW@32Ω
- Frequency Response: 20Hz~20kHz <0.1dB
- Idle noise(+A): 0.985uV/1.017uV

Hardware specifications

- Size: 50mm x 16mm x 6mm
- Power consumption: 5V @103mA
- Chips: XMOS XU316-1024-QF60B-PP24
DAC CS43131

Interface

- USB Type-C Interface
 - USB Audio Class 2.0 (UAC 2.0)
 - USB Firmware Upgrade (DFU)
- 3.5 mm headphone dock Stereo out (60mW@32Ω) analog output

Order Information

The MQA_HPM_CS131 Headphone AMP is for branded equipment manufacturer applications and is ideal for use in MQA Headphone AMP evaluations or as a product application

Pawpaw Electronics provides pre-sales and after-sales technical services for users, learn more at: www.pawpaw.cn

Order platform: Pawpaw Electronics official Taobao Mall or Alibaba.

Product Name	Product Model	Products & Accessories
MQA_HPM_CS131 Headphone AMP	MQA_HPM_CS131	MQA_HPM_CS131 x1



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