



# xCORE-AUDIO Hi-Res 2

AFFORDABLE HI-RESOLUTION AUDIO PROCESSING FOR EVERYONE



## FEATURES

- **USB: 2 high resolution channels OUT**
  - Up to 384 kHz (44.1, 48, 88.2, 96, 176.4, 192, 352.8, 384) sample rates
  - Asynchronous Isochronous transfers
- **CODEC: I2S or DSD**
  - 16, 24, or 32 bit PCM
  - DoP64 and DoP128
- **Optional S/PDIF output**
  - Up to 192 kHz, 16/24 bit resolution
- **Flexible integration and control**
  - 8 GPIO system control
  - 8 GPI for HMI with optional HID inputs
  - I2C master for configuration and control
- **Multiple OS support**
  - Windows
  - Mac OS X
  - Apple iOS (Host Mode)
  - Android
- **Field upgrade capability**
- **Power**
  - Bus/Self powered
  - Consumption: 400 mW
- **TQFP64 package**

The xCORE-AUDIO™ Hi-Res 2 offers high resolution stereo audio interfacing to deliver precise output with low noise/distortion for soothing, high-quality sound at a price-point for mass-market consumer audio applications.

The xCORE-AUDIO Hi-Res 2 supports the full range of high resolution file formats, including PCM audio encoded at 384kHz/32-bit and DSD 2.8 MHz/5.6 MHz audio from any suitable source.

The built-in USB interface uses superior Asynchronous Isochronous transfers to ensure bit-perfect audio reproduction from a wide array of digital devices, including iPod®/iPhone®/iPad®, PC or Mac®. Example Android and iOS applications and a free Windows UAC2 stereo driver are available.

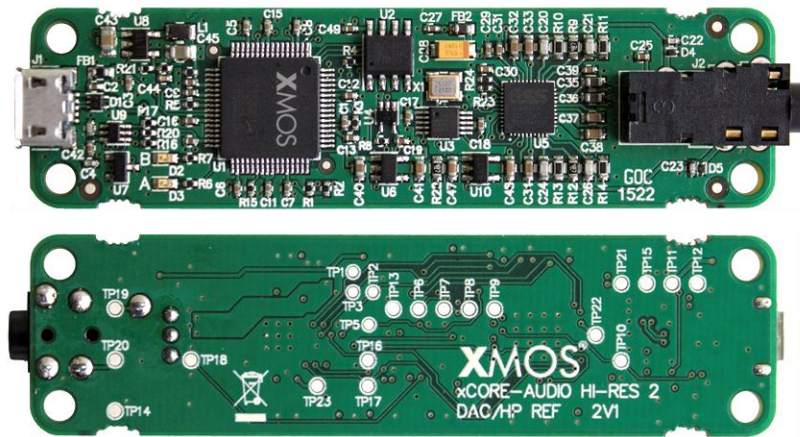
The xCORE-AUDIO Hi-Res 2 is configurable and customizable. Eight GPIO are available for implementing Human Machine Interfaces (HMI) and/or the control of external audio DAC devices. An I2C port is provided for system configuration.






The xCORE-AUDIO Hi-Res 2 is packaged in an easy-to-use 64 pin TQFP for low-cost system integration.

## APPLICATION AREAS

- Headphone amplifiers
- Tablet docks
- USB speakers
- Audio DACs
- PC sound cards
- Hi Resolution speakers

## xCORE-AUDIO Hi-Res DAC/HPA PLATFORM



|   | Feature   | Benefit   |
|---|---|---|
|  | High-speed USB 2.0 device                         | Plug-and-play operation<br>Bus- or self-powered   |
|  | USB Audio Class 2.0 compliant                     | Driverless operation with Mac OS X <sup>1</sup> and Android <sup>2</sup><br>Multiple driver vendors for Windows |
|  | 2-channel streaming from host at up to 384kHz PCM | Highest resolution stereo playback  |
|  | Local clocking<br>Asynchronous USB audio transfer | Low jitter, high quality audio capture and playback   |
|  | Highly integrated                                 | Lowest total system cost and smallest form-factors  |

1: Mac OS X v10.6.4 and later provides native USB Audio Class 2.0 support.

2: Requires that Android device is USB host with USB Audio Class support. Tested against: Samsung Galaxy S3, S4, Note, Sony Xperia Z1, HTC One.

## ORDERING INFORMATION

For a list of Xmos distributors, please visit [www.xmos.com/support/distributors](http://www.xmos.com/support/distributors).

| Part number      | Contents                               |
|------------------|--|
| XHRA-2HPA-TQ64-C | xCORE-AUDIO HiRes-2 processor (XHRA-2) |
| XK-USB-AUDIO-HPA | xCORE-AUDIO Hi-Res DAC/HPA platform    |

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