



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.

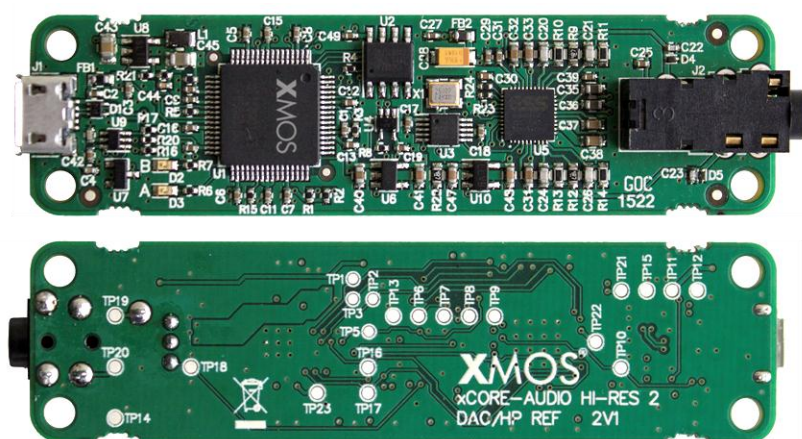
The xCORE-AUDIO Hi-Res 2 is configurable and customizable. Eight GPIO are available for implementing Human Machine Interfaces (HMI) and/or the control of external audio DAC devices. An I2C port is provided for system configuration.

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 Bus- or self-powered
	USB Audio Class 2.0 compliant	Driverless operation with Mac OS X ¹ and Android ² Multiple driver vendors for Windows
	2-channel streaming from host at up to 384kHz PCM	Highest resolution stereo playback
	Local clocking 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 X MOS distributors, please visit 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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This is a preliminary product brief, contents are subject to change.

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