xCORE-AUDIO Hi-Res 2

AFFORDABLE HI-RESOLUTION AUDIO PROCESSING FOR EVERYONE

FEATURES

- **High definition audio**
  - PCM ≤384kHz at 16, 24 or 32bits
  - Native DSD64 and DSD128
  - DoP64 and DoP128
  - S/PDIF input and output
- **Bit perfect USB audio transfer:** Asynchronous Isochronous to/from host
- **64b fixed point 2in/2out mixer:** USB, microphone and instrument inputs
- **USB compliant device**
  - High-Speed USB device Optional Full-Speed fall-back
  - USB Audio Class 2.0 device Selectable Audio Class 1.0 fall-back
  - Self-powered with Apple charging
- **Flexible integration and control**
  - 8 GPIO for system control and HMI
  - Android/iOS App or I2C slave port for configuration and control
  - Field upgrade capability
- **Multiple OS support**
  - Windows
  - Mac OS X
  - Apple iOS (Apple Host Mode)
  - Android
- **Easy to use packaging:** 128TQFP for low cost PCB integration

The xCORE-AUDIO™ Hi-Res 2 offers 4 channel high-resolution audio interfacing capabilities to deliver precise output with low noise/distortion for soothing, high-quality sound at a price-point that is affordable for mass-market consumer audio applications.

The xCORE-AUDIO Hi-Res 2 supports the full range of Hi-Resolution file formats, including PCM audio encoded at 384kHz/32-bit and DSD 2.8 MHz/5.6 MHz audio using any PC or MAC.

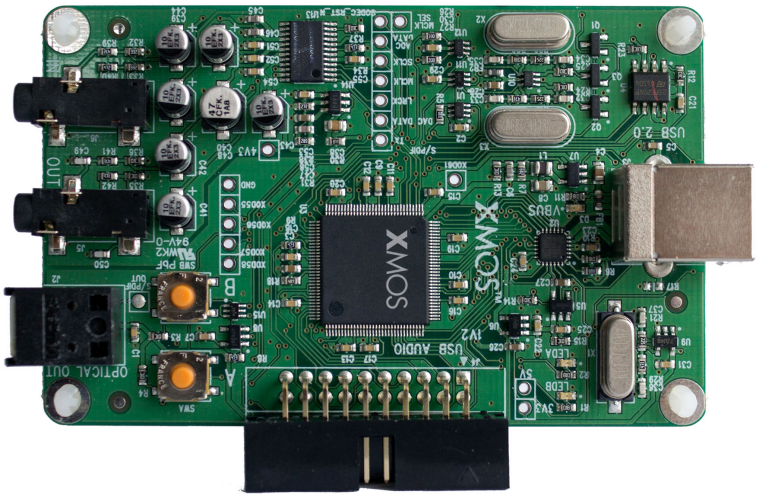
The built-in USB interface supports a wide array of digital devices, including iPod®/iPhone®/iPad®1 devices, PC or Mac®.

A 64b 2in/2out mixer provides high fidelity combination of audio signals from USB, or I2S sources under external control.

Eight GPIO are available for implementing Human Machine Interfaces (HMI) and/or the control of external audio ADC/DAC devices. Example Android and iOS applications and an SPI/I2C port are also provided for the configuration of the device.

The xCORE-AUDIO Hi-Res 2 is packaged in an easy-to-use 128 pin TQFP for low-cost system integration.

xCORE-AUDIO Hi-Res 2 BOARD



APPLICATION AREAS

- Headphone amplifiers
- Games headsets
- Karaoke equipment
- Portable mixers
- USB speakers
- PC sound cards

	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[3]
	2-channel streaming to & from host at up to 384kHz PCM	Simultaneous dual stereo record and playback High resolution audio
	Local clocking Asynchronous USB audio transfer	Low jitter, high quality audio capture and playback
	Powered by xCORE-200 multicore microcontroller	Flexible, deterministic and responsive processing power Lowest audio round trip latency

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.
3: USB Audio Class 2.0 support under Windows requires a 3rd party driver.

ORDERING INFORMATION

For a list of XMOS distributors, please visit www.xmos.com/support/distributors.

Part number	Contents
AUD-HR-2	AUD-HR-2 Board xTAG debug adapter