

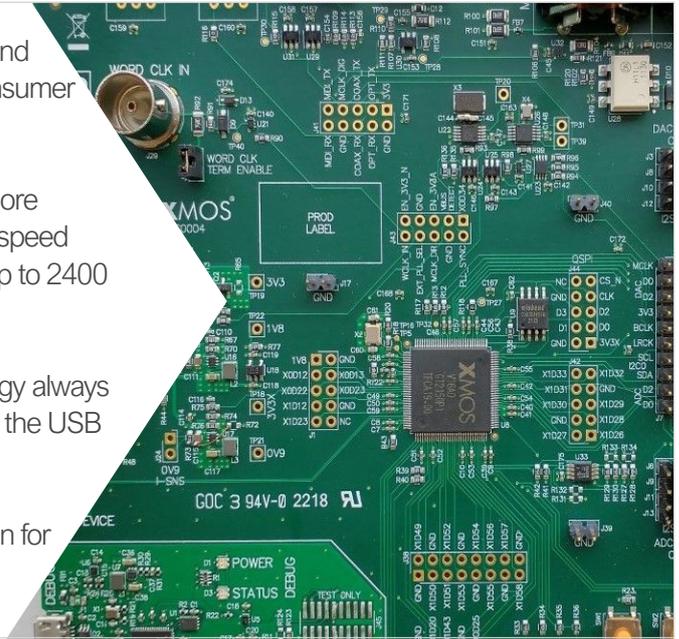
XCORE®.AI MULTICHANNEL AUDIO PLATFORM

The xcore.ai multichannel audio platform provides a scalable and flexible hardware and software solution for a wide range of consumer and professional audio products.

The multichannel audio platform is based on an xcore.ai multicore controller; the XU316-1024-TQ128-C24, and includes a high-speed USB 2.0 PHY, flexible GPIO and 16 logical cores that deliver up to 2400 MIPS of deterministic processing power.

The guaranteed Hardware-Response™ time of xcore technology always ensures lowest latency bit perfect audio streaming to and from the USB host.

The XMOS XTC development tools enable quick customisation for product differentiating features.



FEATURE HIGHLIGHTS

USB COMPLIANT

High-speed USB 2.0 compliant device with low loopback latency.

BIT-PERFECT AUDIO TRANSFER

USB Audio Class 2.0 compliant. High resolution stereo audio playback delivered through PCM up to 384kHz, 32 bits, DoP up to 128 (see specifics below). Local clocking, asynchronous USB audio transfer and PLL clock recovery ensures low jitter, high quality audio capture and playback.

RAPID DEVELOPMENT

Source code reference software and integrated suite of development tools mean royalty-free deployment and a fast time to market.

FLEXIBLE I/O

Simultaneous quad stereo record and playback through 8-channel streaming to and from host.

Flexible, deterministic and responsive processing power, easily customisable to meet specific product requirements.

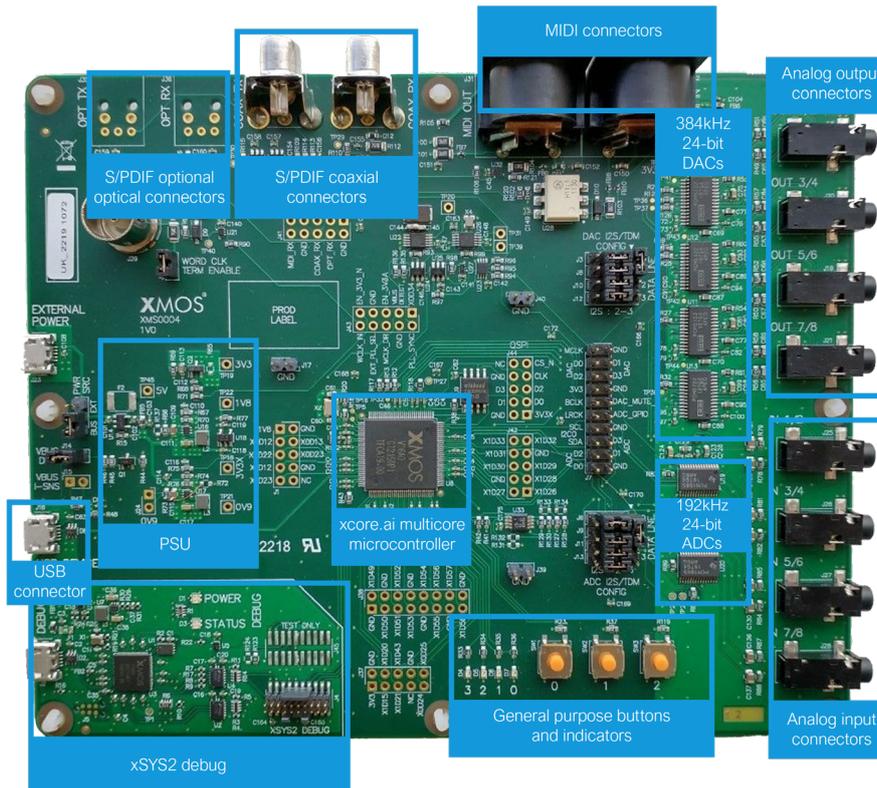
XK-AUDIO-316-MC-AB

Supports Mac OSX, Android and Windows

Bus-powered or self-powered

PCM <192kHz at 16, 24 or 32 bits

UNDERSTANDING THE BOARD



EXPLORER KIT

Delivered as royalty-free source code, the reference software provides a fully featured production ready solution, including support for: full and high-speed USB operation, USB Audio Class 2.0 & 1.0, MIDI, HID & DFU classes.

The board integrates four Texas Instruments PCM5122 stereo audio DACs and two Texas Instruments PCM 1865 quad channel audio ADCs along with two IEC60958 consumer mode inputs and outputs for electrical (S/PDIF) and optical interfacing and supports MIDI In and Out ports. Integrated XTAG4 enables debug with JTAG and XSCOPE.

APPLICATIONS

PRO AUDIO

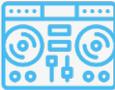

 SPEAKERS


 AMPLIFIERS


 MIXING CONSOLES


 AUDIO INTERFACES

CONSUMER/PROSUMER


 DJ CONTROLLERS


 MUSICAL INSTRUMENTS


 HEADPHONE AMPS


 AUDIO INTERFACES (DAC)

SILICON
XU316-1024-TQ128-C24

DEV KIT
XK-AUDIO-316-MC-AB



For further information, please visit xmos.ai/usb-multichannel-audio/

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