miniDSP

Features
- Multichannel Microphone array
- Modular configurations
- Up to 16 ch USB audio recording
- Stereo optical output
- Powered by A2Bmultichannel protocol for up to 40m cable
- Self powered mic modules

Technical Specs
- USB to A2B module
- 4 x MEMS Mic Modules (UMA4)
- Low Distortion, High SNR
- Flat Frequency response
- Omnidirectional pattern

OS compatibility
- UAC2.0 with Windows ASIO driver, macOS driverless, Linux Alsa 2.0

Applications
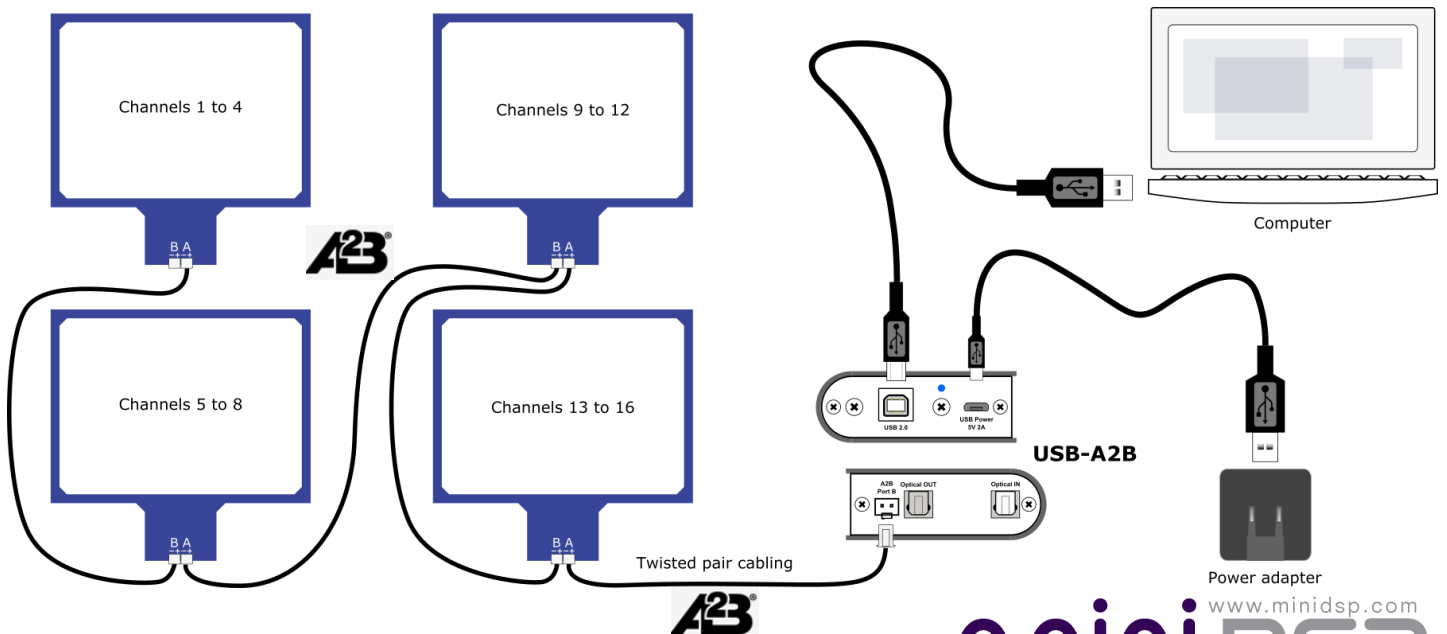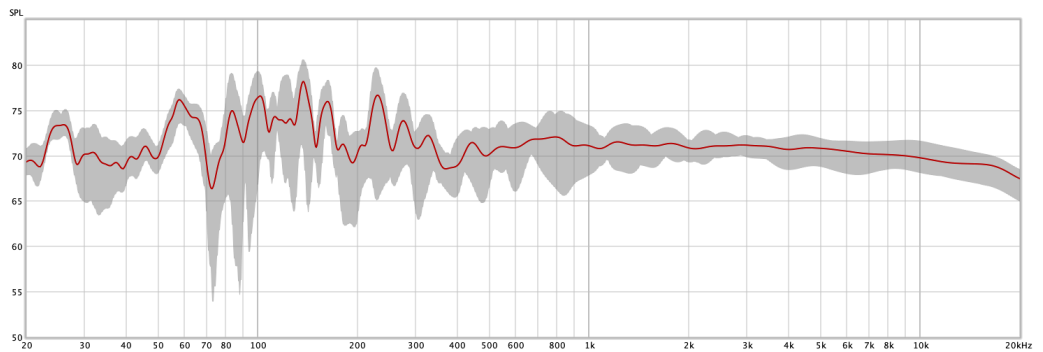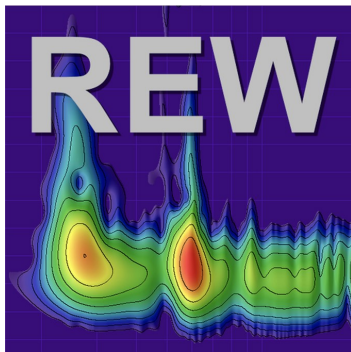- Soundfield measurement
- Environment monitoring

The miniDSP **UMIK-X** is a distributed microphone array containing up to 16 MEMS microphone capsules. Four capsules are mounted onto a **UMA4** microphone module, and up to four UMA4 microphone modules are daisy-chained with a twisted-pair cable carrying the Analog Devices A2B protocol. The chain can be up to 40 meters long.

The UMA4 modules are interfaced to the computer with the included **USB-A2B** interface, which provides 16 channels at 24-bit/44.1 or 48 kHz. The USB-A2B is a UAC-2 compliant interface and is driverless for macOS and Linux. For Windows, an ASIO driver is provided.

Furthermore, the UMIK-X is compatible with the multi-channel measurement capability of the Room EQ Wizard (https://www.roomeqwizard.com) measurement software. While normally a paid upgrade to the free version, a license for this upgrade is included with your UMIK-X purchase.

Applications for the UMIK-X include environmental monitoring and distributed soundfield measurement. The distributed omnidirectional microphones in the array allow quick measurement and analysis in applications such as room and hall equalization and distributed subwoofer tuning.
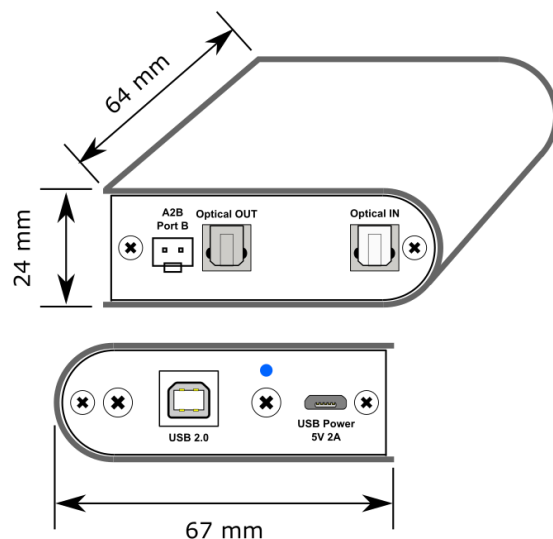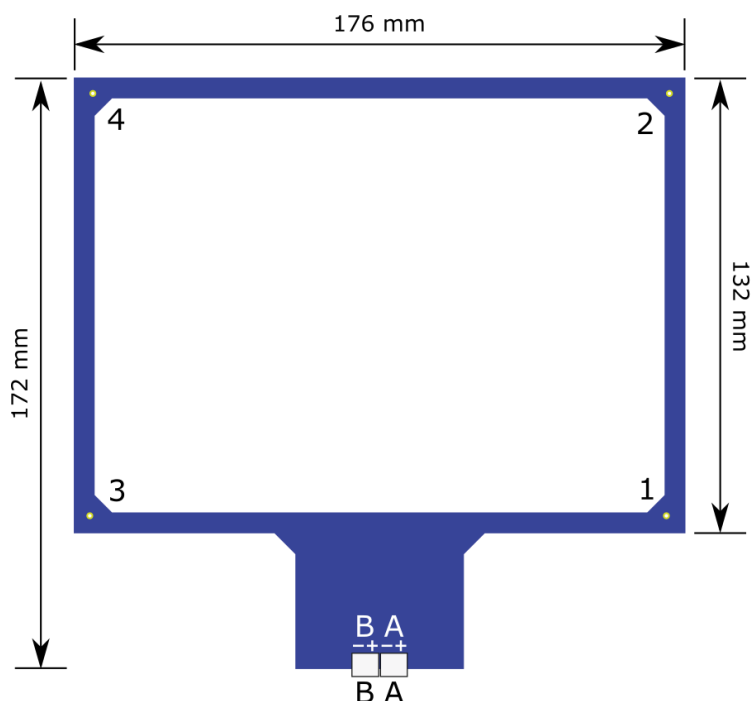
SYSTEM DIAGRAM

www.minidsp.com

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TECHNICAL SPECIFICATIONS - USB to A2B Module

Item	Description
USB streaming engine	XMOS Multicore USB audio processor for UAC2 streaming
USB audio capabilities	USB audio recording for up to 16ch audio channels • Driverless under macOS, Linux • Custom ASIO drivers for Win10 platforms
Resolution / Sample rate	24bit @ 44.1/48 kHz
Analog Devices A2B link	Multichannel audio link via A2B protocol, Up to 40m long cable
Toslink	Toslink Out: Stereo link to Playback system / Toslink In: Not enabled
LED	Power/Active link indication
Power supply	External 5V USB power supply
Dimensions / Weight	24x64x67mm / 90g

TECHNICAL SPECIFICATIONS - UMA-4 Module

Item	Description
Analog Devices A2B link	Multichannel audio link via A2B protocol. Dual port for Daisy chain up to 4 x UMA4
MEMS microphones	4 x Knowles MEMS with low noise buffer and high performance modulator • Low distortion: 1% @ 130 dB SPL • Sensitivity: -37dBFS @ 94dB SPL (1kHz) • Acoustic Overload Point (AOP): 132.5dB SPL • High SNR: 66 dBA and flat frequency response • RF shielded against mobile interference • Ominidirectional pick-up pattern • Matched sensitivity for uniform response
Mounting	Plastic clamp for microphone mounting
Dimensions (mm) / Weight	176x172mm/ 27g

MECHANICAL SPECIFICATIONS

Features and specifications are subject to change without prior notice