

Echo AIO-S2

4 Channel Acoustic Test Interface
with 2 channel impedance measurement



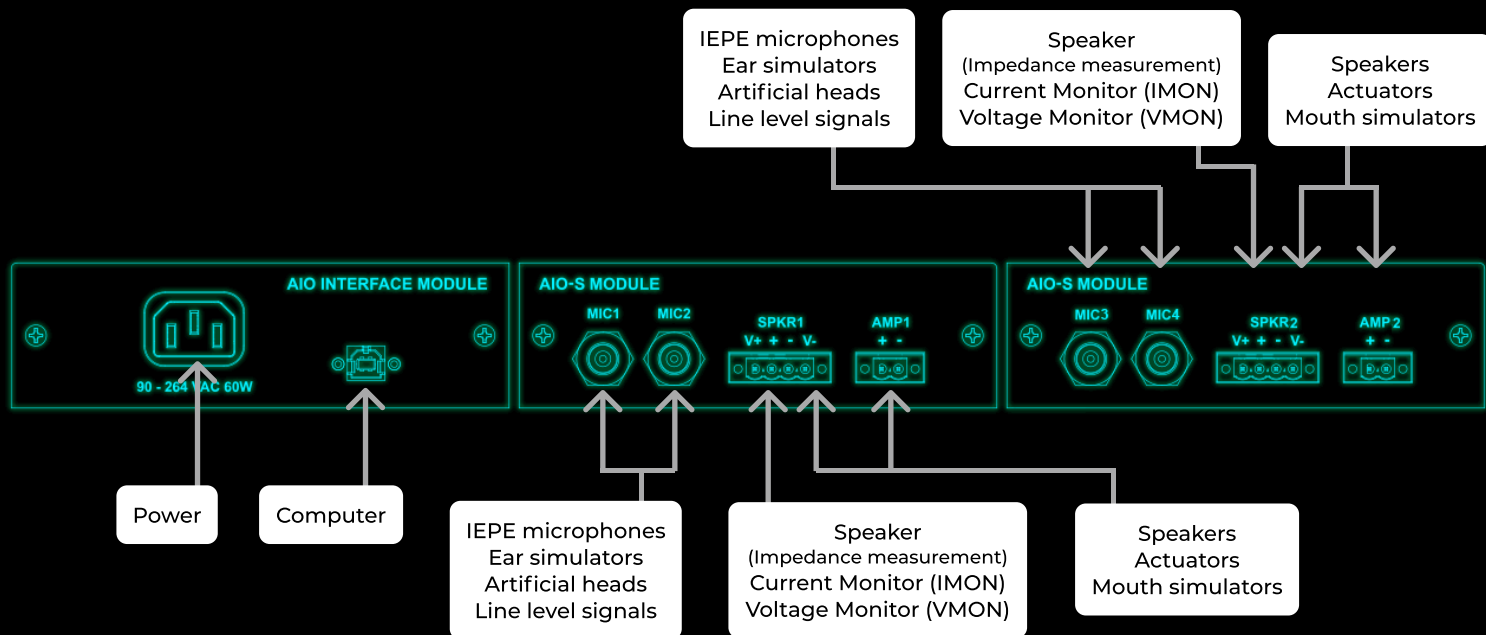
The **Echo AIO-S2** is a 4-channel acoustic interface designed for production-line testing and QA/QC verification. Combining four 10W amplifier outputs and four mic/line analog inputs in a single unit, the AIO-S2 is an integrated, cost-effective, and reliable high-throughput audio test solution. Two of the amplifier outputs include a 0.1 Ohm sense resistor to facilitate 2 channel impedance measurements. Four additional line inputs are dedicated to voltage monitoring (VMON) and current monitoring (IMON) for each impedance measurement output.

Each analog input can be individually configured as a line level input or as a measurement microphone input. Microphone inputs include an IEPE microphone conditioning amplifier with integrated constant current power supply (CCP).

The AIO-S2 presents a standard USB audio sound card interface and is compatible with most audio test software including APx500 Flex, LabVIEW, SoundCheck, and ARTA.



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AIO-S2 SPECIFICATIONS

Mic / Line Inputs

Input impedance	1 M Ω
Input gain	1x, 10x, and 100x
Full-scale input voltage (1x gain)	8.75 Vpk
Maximum input voltage	15 Vpk (do not exceed)
Dynamic range (1x gain, A-weighted)	> 110 dB
THD+N (1x gain, A-weighted)	< -95 dB (20 Hz – 20 kHz)
Frequency response	± 0.5 dB (20 Hz – 20 kHz)
Constant current supply	4 mA, 21 V excitation voltage
TEDS	IEEE 1451.4 Class 1

Amplifier Outputs

Output power (THD+N < .1%)	10 W continuous at 1 kHz
Maximum output voltage	13.5 Vpk
Frequency response	± 0.5 dB 20 Hz – 20 kHz

Impedance Measurement

Frequency response	± 0.5 dB 20 Hz – 20 kHz
Full-scale input voltage	17.5 Vpk
Full-scale input current	8.75 Apk
THDN (1x gain, A-weighted)	< -95 dB 20 Hz – 20 kHz

Interface

Sample rates	48 kHz, 96 kHz, and 192 kHz
USB	USB 2.0 audio class compliant
Supported operating systems	Windows 7 or later, macOS
Audio APIs	ASIO, WASAPI, CoreAudio
AC power	Universal power supply, 90 - 264 VAC at 50 or 60 Hz

Dimensions and Weight

Single unit	17.5" (44.4 cm) x 8.75" (22.2 cm) x 1.75" (4.4 cm), 7.2 lbs (3.3 kg)
Single unit boxed with cables	21" (53 cm) x 10" (25.4 cm) x 5" (12.7 cm), 8.75 lbs (4 kg)
Shipping carton (6 AIOs)	22" (55.8 cm) x 22" (55.8 cm) x 17" (43.1 cm), 59.5 lbs (27 kg)