

The MC3022 is a USB powered Plug-N-Play measurement soundcard with two ICP input channels and one output source channel. Based on 24 bit A/D converters with two-channel simultaneous sampling frequency of 44.1 kHz, it is simple, powerful, and yet very easy to use. It is the perfect start to building your own two-channel sound and vibration measurement system.

Based on sound card technology, the MC3022 frequency response ranges from 20 Hz to 20 kHz with an accuracy of +0.5/-1.0 dB. Specially designed circuitry lowers the system noise floor by significantly reducing high frequency noise common in USB powered devices.

The input channels can be connected to any ICP powered sensor and when using BSWA ICP microphones (MPA201/205/206), the MC3022 is capable of measuring acoustic signals from an amazing 33 dBA to 130 dBA without any change in signal gain. The output channel is capable of providing a 1.0 Vrms source signal to speakers, shakers, and other devices.

The MC3022 was developed for OEM and DIY markets in acoustic measurement and supports all data acquisition software that take advantage of soundcard technology. The MC3022 has been used in

- Audio Acoustic Testing
- Two-Channel Analyzers
- Environmental Noise Measurements
- Building Acoustics Testing

Examples of third party software that works with the MC3022 include WinMLS, DIRAC, EASERA, Audio Tester, Listen, ETF, NoiseBook, SpectralPlus, and LabView, just to name a few.



Specifications

USB SOUNDCARD MC3022	
Input Channel	2
Input Channel Type	ICP (4 mA)
Input Connector	BNC
A/D Converter	24 bits
Max. Sampling Frequency	44.1 kHz
Cross Talk	> 80 dB
Frequency Response (Ref: 250 Hz, + 0.5 dB/-1.0 dB)	20 Hz – 20 kHz
Total Harmonic Distortion	< 0.01%
Measurement Range (With MPA201)	33 – 130 dBA
Max. Input Voltage	1.0 Vrms
Output Channel	1
Output Frequency Range	20 Hz – 20 kHz Achievable Sine, Pink, White noise.
Max Output Voltage	1.0 Vrms
Power Requirement	USB power
Temperature	-10°C to +40°C
Humidity	0 to 98% RH
Size (mm)	156 x 117 x 36
Weight (g)	550