AudioConnect™ 2
USB Controlled Audio Test Interface

Introduction

AudioConnect 2 is the dual-channel audio test interface that doesn't compromise. Fully-featured yet portable, it offers high resolution measurement, microphone power and more in a cost-effective and compact package that is ideal for headphone and automotive measurements from the production line to out in the field.

Features

• Sample rates up to 192kHz
• 2 input channels that can be independently configured as TEDS-compatible microphone inputs with constant current bias, microphone inputs with constant voltage bias, or regular line-in. Inputs feature selectable 0/20 dB input gain with level and overload indicators.
• 2 line output channels for driving powered speakers, amplifiers etc.
• A low noise, low distortion, headphone amplifier to power headphones or monitor the input audio signal.
• A Single USB-C connection to interface with the computer AND provide power*.
• Error-proof operation with exclusive software control (no front panel knobs), input protection, and BNC connectors.
• Automatic configuration with SoundCheck.

*Some laptops with USB-A offer insufficient output to power AudioConnect 2. An AC adapter is also included.

High resolution measurements

With sampling rates up to 192kHz and 24 Bits, AudioConnect 2 is ideal for high resolution audio measurements on headphones, automotive systems and more.

Powers most microphones, couplers and head and torso simulators

The two inputs can be independently configured as line inputs or TEDS-compatible microphone input channels, offering both constant voltage (SCM) and constant current (IEPE) power. This makes it ideal for headphone measurements as it can power ear couplers, and most modern head and torso simulators in addition to a wide range of microphones.

Complete test control

Two line outputs drive microspeakers and powered loudspeakers or mouth simulators, or control SC Amp or other amplifiers. The separate low noise, low distortion headphone amplifier powers headphones or permits monitoring of the input audio signal via wired headphones.

Seamless integration

Integration with SoundCheck® (version 21 and higher) is seamless, and setup is fast. The device is fully calibrated before it leaves the factory and the data stored on the device firmware. When the AudioConnect 2 is connected to SoundCheck, the system reads the calibration values, avoiding the need for manual calibration. The input channels are automatically populated with sampling rate and device self-test requires no additional cabling as all switching is internal. Setup is further streamlined with TEDS support to automatically identify and read data from TEDS microphones and accelerometers.

Simple Configuration and Error-free Operation

The interface is completely knob-free, with control only via the software - either through a sequence or a dedicated control panel. This eliminates any possibility of accidental change to the settings. Level and overload indicators ensure the integrity of your results with a clear warning if the signal is near or actually clipping, and BNC connectors minimize the possibility of poor cable connection.

Portable and rugged

AudioConnect 2 is designed for portability. It is powered from a laptop via USB-C, eliminating the need for a dedicated power supply. This makes it ideal for measurements outside the lab such as testing headphones and hearing aids in real-world environments and making in-car audio measurements. Used with the line-powered PQC-4149 interface you have a fully portable Bluetooth headphone test system with both hardware devices running from your laptop's USB power!

Its ruggedness and competitive price point also ensure that it offers excellent value for production line applications. It can be rack mounted, and the fingerprint-resistant matte finish ensures that it always looks great!

AudioConnect™ 2 Specifications

Specifications

USB Audio Interface
USB 2.0, Windows and macOS HID compliant
WASAPI, ASIO and Core Audio drivers
USB Audio Class 2 (macOS, Windows)
Sample Rates: 44.1, 48, 88.2, 96, 176.4 & 192 kHz; 24 bits
Mic/Line Inputs
Connectors: 2 BNC unbalanced inputs
TEDS Support (IEEE 1451.4)
Maximum Input Level: 2.5 Vp (1.77 Vrms) at 0 dB gain
Input Impedance: 100 kΩ
Gain Settings: 0, +20 dB
Bias Settings: Off / SCM / IEPE
SCM (Electret) Bias: 10 VDC, 7.5 kΩ
IEPE Bias: 28 VDC @ 4 mA constant current
Frequency Response (all sample rates): 20 Hz – 20 kHz +0.1/-0.4 dB at 0 dB gain
Frequency Response (192kHz): 10 Hz – 90 kHz +0.1/-2.0 dB
Equivalent Input Noise: <15 uV (at 0 dB gain, 20 Hz – 20 kHz BW)
THD+N: -94 dB (0.002%) typical at 44.1 kHz sample rate, 0 dB gain, 20-20k BW; -88 dB (0.004%) typical at 192 kHz sample rate, 0 dB gain, 20-40k BW
Inter-channel Phase*: ±0.25°, 20 Hz to 20 kHz
Line Outputs
Connectors: 2 BNC unbalanced outputs
Maximum Output Level: 4 Vp (2.82 Vrms)
Frequency Response (all sample rates): 20 Hz – 20 kHz ± 0.1 dB
Frequency Response (192kHz): 10 Hz – 90 kHz +0.1,-2.0 dB
THD+N: -100 dB (0.001%) typical at 44.1 kHz sample rate, 20 Hz – 20 kHz BW; -98 dB (0.00125%) typical at 192 kHz sample rate, 20-40k BW
Crosstalk: Input: <-100 dB; Output: <-110 dB
Headphone Output
Connector: ¼" TRS Phone jack unbalanced stereo
Output Power: 150 mW @ 32 ohms; 90 mW @ 16 ohms
Frequency Response: 20 Hz – 20 kHz ± 0.1 dB (all); 10 Hz – 90 kHz +0.1/ -2.0 dB (192k)
Physical
Dimensions: 4.375"W x 1.8"H x 8.625"D (111 x 46 x 219 mm)
Weight: 1.25 lbs (0.57 kg)
Power: USB-C or Universal AC Adapter: 5 VDC, 1.2-3.0 A output, 100-240 VAC, 50-60 Hz input (included)
Please see user manual for more detailed technical specifications.
Optional Accessories
Rackmount shelf with mounting points for ¼ rack width Connect series products. Part # 4901