

AmpConnect 621™

A New Multichannel, Multifunction Audio Interface



The new AmpConnect 621 is Listen's next generation multichannel, multifunction, high resolution audio test interface. It is ideal for any application where more than 2 channels are needed, for example, automotive audio, voice-activated device measurements, sound power measurements and measuring devices with multiple speakers such as soundbars and smartphones. With a sample rate of up to 192kHz, it is also a great choice for measuring high resolution devices such as headphones and hearables. Additionally, it includes all the functionality required for audio testing in just one unit, including an amplifier, microphone power supply, line outputs and digital I/O.

AmpConnect 621 features 6 inputs, 2 line outputs and one amplifier output. All inputs offer microphone power (SCM, IEPE and pre-polarized), to accommodate many types of couplers, accelerometers and reference microphones - even the new Brüel and Kjær 5128 high resolution head and torso simulator. Full TEDS support for microphones and accelerometers simplifies setup and calibration by importing the data at the click of a button. The 2 line level outputs plus a separate 50W amplifier route the output signal to any sources, powered or needing amplification, (e.g. artificial mouth, speakers, headphones, automotive head units). Impedance measurements using the amplifier output, along with output voltage monitoring, are performed entirely internally and do not require using any of the 6 external input channels, leaving them open for other measurements. This, along with digital I/O, simplifies operation as signals are all routed internally with no additional cabling required. The device connects to the computer with a single USB cable; the only additional cables required are those connecting your microphones and DUTs. This all-in-one approach offers excellent ground loop immunity in comparison to discrete components.

The interface has no control knobs on the front; control is entirely through the SoundCheck software interface. This minimizes errors by making it impossible for settings to be accidentally changed. For example, in a production environment, the only way the operator can adjust the settings is by modifying the test sequence, and access to this can be restricted via operator access rights. This helps OEMs

ensure test integrity when requiring contract manufacturers or offshore manufacturing facilities to run their test sequences. This is also advantageous for protecting against accidental changes in a laboratory, particularly when multiple people are accessing the same piece of equipment. The front panel features visual indicators for power, input and output level, amplifier channel and level so that overloads, etc. can be clearly identified.

Test deployment is fast with full plug and play functionality. Channel configuration is fully automatic when the AmpConnect 621 is connected to the SoundCheck computer – the user just needs to adjust driver selection and sampling rate if different from the default values. Calibration data is read from TEDS microphones in SoundCheck's calibration editor, or easily imported from a calibration file. When setting up multiple systems, the AmpConnect only needs to be configured once, and the setup can be duplicated to other test stations; there is no need to re-configure AmpConnect 621 each time.

AmpConnect 621 offers the option to use WASAPI-exclusive mode with Windows 10 audio devices in addition to the more commonly used ASIO drivers. This advanced communication protocol allows SoundCheck to bypass the Windows audio mixer, sending audio streams directly to the device. This results in lower latency and ensures that there is no sample rate conversion behind the scenes. It also enables SoundCheck to put an exclusive lock on the audio interface so that a measurement cannot be disrupted by system sounds which is valuable in highly automated settings. Multiple WASAPI devices can be used simultaneously, and WASAPI and ASIO devices can be combined to increase channel availability.

Like Listen's other hardware products, AmpConnect 621 is built to last in production environments. The 17" wide x 2-Units (3.5") high x 11.5" deep rack-mountable unit is rugged with a new fingerprint-resistant matte finish.

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