

Mobile Measurement Technology above the Clouds:

SQuadriga III from HEAD acoustics now also without Battery Pack

With the new SQuadriga III-V1 variant without an internal battery, HEAD acoustics takes mobile sound and vibration measurement technology for aviation applications to a new level.

With its comprehensive range of functions, high user-friendliness, and flexibility, the compact SQuadriga III measuring system has already established and proven itself as a standard for the automotive industry since its first generation (2003). In the battery-free V1 version, SQuadriga III now also meets the requirements for flight testing; for example, eliminating the internal lithium-ion battery makes it easier for our customers to collaborate globally, as shipment by air freight is possible without any problems.

Precision with security

Mobile sound and vibration measuring devices for the aviation industry often have to operate independently of the aircraft's onboard power supply. Within the scope of aviation regulations, certified external rechargeable batteries are used for this purpose. In flight applications, SQuadriga III-V1 powers itself via an external voltage source (10 - 30V), and a capacitor supplies the internal real-time clock.

Open interfaces, simple integration, extensive possibilities

The mobile measuring system records signals from up to eight sensors (IEPE/ICP®-capable on request), for example, microphones and accelerometers. The large number of integrated interfaces makes adapters redundant. Sensors such as the BHS II headset with integrated microphones or an artificial head enable efficient and fast binaural and calibrated recordings. A connection for equalized headphones enables aurally correct playback, a technology established by HEAD acoustics, sensor monitoring, and real-time filtering without additional equipment, flexibly and efficiently even above the clouds.

SQuadriga III records speed and velocity signals of all types via two galvanically isolated pulse inputs. With sensitive signal conditioning and adjustable trigger thresholds, the individual configuration is exceptionally convenient. Thanks to HEADlink interfaces, seamless integration into a HEADlab system is possible. Conversely, a SQuadriga III can also be expanded by a HEADlab module. A second SQuadriga III creates a mobile system with up to 16 analog channels. In stand-alone mode, measurements and analyses – from conventional to psychoacoustic methods – can be performed autonomously and directly on site. In addition, three USB interfaces are available, for example, for documenting measurement situations with an external USB camera for videos and photos—SQuadriga III stores all data on either the internal 64 GB memory or an external USB stick.

All information is under control at all times

The exact time, position, and speed are available with a satellite receiver for the common navigation systems (GPS, Galileo, GLONASS, BeiDou). The unique feature: Recordings from spatially separated devices, for example, in the airplane and on the ground, can be conveniently and quickly synchronized with each other at a later time using the highly accurate time information with sampling precision. GPS speed and position, as well as pulse and analog signals, can be used to start and stop measurements. The large 7-inch display with capacitive multitouch and the intuitive operation, including gesture control, round off the user-oriented look & feel.



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About HEAD acoustics

HEAD acoustics GmbH is one of the world's leading companies offering holistic solutions for sound and vibration analysis. In the telecom sector, the company enjoys global recognition due to the expertise and pioneering role in the development of hardware and software for the measurement, analysis and optimization of voice and audio quality as well as customer-specific solutions and services. HEAD acoustics' range of services covers sound engineering for technical products, investigation of environmental noise, speech quality engineering as well as consulting, training, and support. The company from Herzogenrath near Aachen has subsidiaries in China, France, Italy, Japan, South Korea, the UK and the USA as well as numerous sales partners worldwide.