

coreA2B: High-performance solution for testing audio performance on A²B[®] technology

Hands-free calling, voice recognition, personal audio zones and more: Providing high-quality audio is an important part of modern audio systems in vehicles. For this purpose, Analog Devices Inc. has developed Automotive Audio Bus[®] (A²B[®]) technology, optimized for delivering superior audio quality. Now, HEAD acoustics launches *coreA2B*, the A²B measurement technology: The new extension board for the multi-channel hardware platform *labCORE* is a high-performance solution for testing audio performance on the A²B bus technology. With *coreA2B*, the hardware platform connects for any A²B bus in four user-selectable modes: Master mode, Slave mode, Bus monitor mode and Proxy mode.

Proxy mode provides full control over all data on the bus

Proxy mode is the most skillful and thus primary mode of operation of *coreA2B*, because the extension board gains full control over all data on the bus. With this unique feature, the HEAD acoustics solution stands out significantly from the competition and comparable approaches on the market. In Proxy mode, *coreA2B* connects anywhere on the bus. Developers can manipulate all of the digital data on the bus via HEAD acoustics communication quality analysis software ACQUA as desired. Only Proxy mode enables to record, process and send user-defined audio and configuration data from and to any channel and any node while the bus itself remains fully operational. Furthermore, in conjunction with *labCORE* and ACQUA, this mode allows *coreA2B* to receive, mix and insert arbitrary signals to the bus without interference with the original, unaltered signal. *coreA2B* does not occupy the master or any slave node position, thus developers can use this mode also on fully equipped buses.

Another key characteristic of *coreA2B* is the Bus monitor mode. This mode is for analyzing data traffic on the bus without interference, e.g. when trouble-shooting an existing bus. The new extension board acts as a “neutral entity”, sniffing out audio and configuration data at any point on the bus.

Enables to act as Master and Slave node on the bus

Besides the above-mentioned modes, *coreA2B* can operate as a Master. In this mode, the new extension board replaces the original master (e.g. head unit) and acts as the new master for the bus. Developers can connect up to ten slave devices to *coreA2B*. The Slave mode, on the other side, enables the *labCORE* extension to act as a slave node on an existing bus. Developers are able to insert a node at any arbitrary position. In this mode, *coreA2B* can send and receive audio data as well as receive configuration data.

Moreover, developers can use *coreA2B* as an evaluation board for the A²B bus. In this case, it operates in Master mode and allows using all capabilities of analysing, filtering and manipulating signals that ACQUA offers.

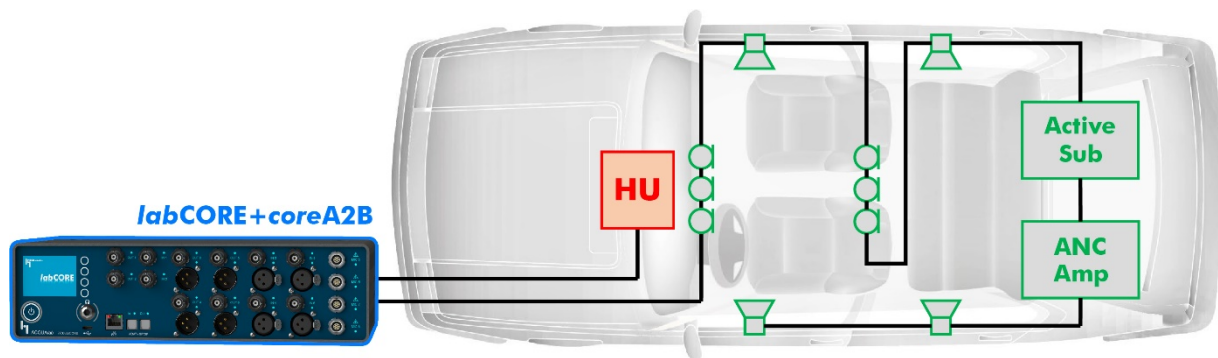
About HEAD acoustics

HEAD acoustics GmbH is one of the world's leading companies for integrated acoustic solutions as well as 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, voice quality engineering as well as consulting, training and support. The medium-sized company from Herzogenrath near Aachen (Germany) has subsidiaries in China, France, Italy, Japan, South Korea, the UK, and the USA as well as numerous sales partners worldwide.

Images



coreA2B, the new extension board for the multi-channel hardware platform *labCORE*, is a high-performance solution for testing audio performance on the A²B bus technology.



The Proxy mode of coreA2B is the most skillful mode and enables developers to actively receive and insert user-specified signals from the fully-operational bus.