

Computing platform with Classical CAN and CAN FD

B-Plus developed the Brick2 recording and computing platform. The system enables time-synchronized data recording, computing and storage solutions, and an open platform architecture.

Main challenges in data-recording of measurement data in the area of ADAS (advanced driver assistance systems) are the recording speed and accuracy of measurement data with regard to the timing sequence. In addition, there are different requirements for software functions in test scenarios and test environments. The acquisition, coordination, and compatibility of the different systems represent additional effort for the tool owner, explained the company.

With its ADAS-recording and computing platform, B-Plus offers a solution, that represents components and tools of test scenarios using the modular concept. The modular concept from the Brick series takes current and future challenges into account, regarding recording, storage, and processing of measurement data in the vehicle, said the company.



(Source: B-Plus)

A range of modules are needed for a holistic acquisition of all measurement data in a test scenario. This calls for an interaction of various components with diverse contacts and manufacturers. Cost-intensive and time-consuming processes from researching of suppliers to contacting and working with partners can be minimized by choosing the modular concept of Brick, said the company. The Brick2 acts as the central component in the acquisition of measurement data. Additional measurement technology modules such as FPDLink / GMSL measurement interfaces, ingest stations, uninterruptible power supplies, storage and network interfaces for Classical CAN, CAN FD, and others are selected and configured for specific use case after an individual consultation.

Synchronous recording

The cross-system and cross-interface accuracy and synchronicity of recorded measurement data during test drives is important. Incomplete and not-synchronous data require additional effort for their post processing. The platform offers a clock synchronization mechanism, with the help of which incoming data packages can be provided with the matching time stamps. Cross-platform Ethernet with PTP (Precision Time Protocol) serve as a time source or additionally the hardware GPS-receiver and serial ports (NMEA) built into the device can offer time information.

The need for data recorders for acquisition, storage, and processing of measurement data grows with the increasing number of sensors and bandwidths. The product delivers a system, that offers performance in vehicle use with a permanent writing speed of 24 Gbit/s. For example, one system can process up to six camera sensors with eight-megapixel resolution. Larger measurement setups with multiple sensors can be realized with linked Brick cluster. A processor and 64 GiB RAM enable the processing of data or e.g. for a larger ring buffer.

Different projects require various software packages. Teams from measurement technology, sensor development, and algorithmic have different demands for the measurement technology. The system can be adapted to diverse function blocks and third-party components, explained the company. Due to the open platform architecture, it can be used by customers with their own software.

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