

BOX PC

## Extended interface range for in-vehicle prototyping system

The Microautobox III is the next generation of the Microautobox, a real-time system for performing in-vehicle function prototyping. Dspace has extended the range of channels and network interfaces it. Three CAN FD channels are part of this.



*The company offers its in-vehicle prototyping system with a number of channels and an extended range of interfaces (Source: Dspace)*

The system can be added to or replace an electronic control unit, and lets users experience and test control functionalities in a real environment. In the development of self-driving and electrically-powered cars, the connectivity requirements for in-vehicle prototyping systems are constantly growing. This is why Dspace offers its in-vehicle prototyping system with a number of channels and an extended range of network interfaces. With the addition of the DS1521 I/O board variant, the system is particularly suitable for communication-intensive developments that take into account the centralization of the E/E architecture, among other things.

Typical applications for the Microautobox III with the DS1521 bus and network board include gateways, running supervisory controllers to control other ECUs (electronic control unit) in real-time via networks, and designing central control units with service-based Ethernet communication. To address these applications, the board provides Classical CAN, eight CAN FD channels, three automotive Ethernet ports, two Flexray connectors (A/B), three [LIN channels](#), and additional UART, digital, and analog interfaces. For particularly communication-intensive applications, the product can also be equipped with two DS1521 boards, which results in doubling the number of the above-mentioned interfaces. A combination with other I/O boards is also possible.

The system is configured using the Configurationdesk implementation software, including the integrated Bus Manager. This allows for configuring the network communication on the basis of the latest standards and protocols, such as Autosar (ARXML), Fibex, DBC, or LDF. For integration into an existing vehicle electrical system, current Autosar features such as secure onboard communication (SecOC), end-to-end protection, and global time synchronization (GTS) are also supported on serial network systems, including service-based Ethernet communication (Some-IP). Extension framework is available for project-specific adaptations which can be integrated and implemented by the company.

[CW](#)