Embedded computer with integrated CAN FD

In addition to its CAN-PMC/FD and CAN-PCIe/FD boards, Janz Tec is now also launching embedded computers with CAN FD interfaces. The CAN FD embedded systems can also be connected to the IT world.

In comparison to Classical CAN networks, CAN FD networks offer a higher bandwidth and are highly robust (Photo: Janz Tec)

With regard to CAN, the embedded systems emPC-A/iMX6, emPC-X and the Industrial IoT Gateway series support the CAN FD protocol according to ISO 11898-1:2015. This unites the advantages of embedded systems and CAN FD protocols: space-saving use of the robust systems for harsh industrial environments with a data transfer rate of up to 8 Mbit/s, said the company. The CAN FD protocol detects virtually all data transmission errors and is therefore one of the most reliable serial communication systems available.

In automotive engineering, CAN FD networks are also used for the accelerated downloading of software for electronic control units. They are suitable for in-vehicle topologies, which are especially required for autonomous driving. CAN FD networks are, of course, used for simulating, monitoring, and testing vehicles as well. The areas of application encompass road vehicles, construction machinery, rail vehicles, and agricultural machinery. It is to be expected that the CAN FD protocol will also find its way into other applications in which the Classical protocol is successful. This includes industrial machine controls, medical equipment, elevator controls, and exotic applications, such as vending machines and turnstiles on ski lifts.

Wireless communication channels such as LTE and WLAN for flexible network connection are available as an option for all systems. Some computers cover an extended temperature range for the industrial environment. Janz Tec not only supports customer-specific hardware adaptations, but also the integration of CAN FD systems into the existing software environment. The market introduction of the CAN FD systems is planned for the second half of 2019.

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