

CAN FD device for programming and testing

Promik's MSP family gets an addition: The MSP2300Net in-system programmer enables the shortest programming times of the MSP series so far by reaching the physical flash speed of the micro-controller. The product comes with four CAN FD interfaces.



The product is suitable for use of on-board programming and testing in electronic series production (Source: Promik)

Long programming times can influence and slow down entire production processes. As soon as several machines within the process require a different runtime, the costs within the production increase. For this purpose, the family-owned company Promik has developed a multi standard programmer (MSP).

The in-system programmer is designed to cover the toolchain of electronics manufacturing by combining all test and programming requirements in one product, explained the company. The product can be used for flashing via test points as well as for flashing via automotive interfaces such as CAN (FD). In addition, the High-Speed Boundary Scan and the Smart-ICT function can be used.

One feature of the MSP2300NET is the integrated Linux-based operating system, which enables process control. This makes it possible to process large amounts of data on the system with high performance, said the company. The hardware platform is based on the multicore processor of the Xilinx Zynq Ultrascale+ SoC series.

The product supports 24 configurable I/Os. Each signal line is provided with a dedicated ground line for twisted pair wiring to ensure signal integrity. The I/Os support any combination of different hardware interfaces, explained the company. Such mixed high-speed target interfaces can be combined in practice from JTAG, QSPI and SWD, for example. In general, the MSP2300NET supports all common semiconductor manufacturers and microcontroller interfaces, said the company in its press release. Thus, the targets of the product can be configured in different ways

and enable homogeneity in the toolchain, since it is possible to fall back on a standard product, the company continued explaining.

In addition, the product has various automotive interfaces including four CAN FD and four [LIN](#). The device is equipped with a target power supply. For users, this has the advantage that no extra equipment is required, which has to be synchronized. Instead, the power supply for the application is already integrated. Parts of the power source include four channels for a high-range target power supply, as well as four channels for a low-range target power supply. The high-range supply provides a voltage of 2,7 V to 14,0 V with a continuous current limit of 500 mA, 1,5 A. The low-range target power supply operates from 1,5 V to 5,5 V with a current limit of 300 mA.

The product also offers the possibility to perform a current and voltage measurement. For this purpose, the in-system programmer has eight channels for voltage monitoring with a measurement tolerance of +/- 10 mV including the monitoring of voltage dips (brownout detection). The current measurement is carried out with a measurement deviation of +/- 1 mA. According to the company, the integrated measurement function of the in-system programmer eliminates the need for additional equipment. To serve as a complement and enhancement to Promik programming stations, the MSP2300NET is compatible with the 19'-inch rack. Thus, it can be retrofitted without any modification to the station. The device is also available as a desktop unit.

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