

### Microchip goes automotive

Microchip has pre-announced its CAN FD stand-alone controller and transceiver. Its daughter company, K2L has launched interface devices supporting CAN FD to be used with the company's software tools.



Besides the MCP2561/2FD transceiver chips, Microchip will release also CAN FD stand-alone controllers (Photo: Microchip)

launch is planned for the [iCC conference in Vienna](#). Beginning of 2016, they will be available also via distribution partners. End of 2016, the chipmaker plans to release samples of 16-bit micro-controllers featuring on-chip CAN FD modules. A few months later, the 32-bit micro-controllers with CAN FD support will follow.

Additionally, the company offers the MCP2562FD CAN transceiver, which complies with the reviewed ISO 11898-2 standard. It supports data phase bit-rates up to 8 Mbit/s and features low-power functionality. However, the ISO 11898-2 standard just specifies parameters for data-rates up to 5 Mbit/s. The loop-delay symmetry is specified as  $\pm 10$  percent for 2 Mbit/s; the maximum propagation delay is 120 ns. The transceiver will be submitted for EMC testing as required by the German carmakers. According to the supplier, it features automatic thermal shutdown protection, detects permanent dominant state on TXD and on the bus-lines. The chip comes in 8-pin housings. The bus pins are switched-off, when the component is not powered.

#### Interface boxes for tools

Microchip's 100-percent daughter, K2L (located in Microchip's new office in Karlsruhe), has announced interface products with CAN FD connectivity. Of course, these products use the CAN FD controllers and transceivers from the mother company. In the first version, two of the six CAN interfaces will support CAN FD. The Optolyzer Mocca family support multiple network technologies (Classical CAN and CAN FD, Flexray, LIN, and Most).

The company also provides software tools covering all parts of the V-model. This Optolyzer Studio competes against the software tool-chain from Vector, for example. The offered interface hardware can also be used for gateway applications. It features a synchronous time-stamping for all connected networks. The latest version of the .Net tools are suitable for CAN and LIN networks. Users can extend them by adding their own functionality. "With this launch of the CAN-LIN editions of our Optolyzer Studio, it's time to rethink the usability and efficiency of automotive network tools," said Matthias Karcher, K2L's senior manager. "The idea behind this software is to provide the automotive market with a single solution that reduces complexity and cost, and shortens time-to-market, for all activities related to test and simulation. It also covers all of the requirements for conducting analysis and verification, helping to ensure quality from the earliest design stages to full production."

MICROCHIP, WELL KNOWN FOR ITS PIC micro-controllers by many students and non-automotive embedded engineers, is addressing strategically the automotive industry with its solutions. This includes the lighting hardware and the semiconductors for gesture control. The company pre-developed headlight units with its customers using dedicated control chips connected to PIC micro-controllers providing optionally CAN connectivity. The M Touch firmware running on CAN-connectable PICs supports the gesture chips offered by Microchip. The US chipmaker tells proudly that there are 26 micro-controllers and some other components by Microchip implemented in Daimler's S-class cars.

The first CAN FD stand-alone controllers have arrived in Microchip's new German office in Karlsruhe. They are based on Kvaser's (Sweden) IP core. The prototype has been tested on interoperability during the [CAN FD plug-fest in Detroit](#).

Application engineers evaluate now these chips. Official product



For the Optolyzer Studio tools running on PCs, a CAN FD interface hardware will be available soon (Photo: K2L)