

EVALUATION BOARD

Two CAN XL ports and one CAN FD interface

The CAN XL evaluation board by C&S Group has been developed jointly with Bosch, NXP, and Volkswagen (VW). The DE1-SoC (Terasic) board includes the latest Bosch CAN XL core.



The heart of the CAN XL board is a FPGA implementation of the CAN XL core by Bosch (Source: Adobe Stock)

The board provides two CAN XL test interfaces and one CAN FD interface for control and configuration purposes. The product comes with coordinator software by the supplier. For the physical connection a tiny plug-in board (PMA adapter) is used. Currently, it features CAN XL SIC transceivers compliant to CiA 610-3 by NXP.

The board gives carmakers the possibility to try out the CAN XL technology and to evaluate their requirements for series car integration. Semiconductor manufacturers have the possibility of integrating and testing their PMA device in different environmental and configuration conditions. Measurement equipment providers can use the evaluation board to develop and prepare their products (e.g. oscilloscope) to support CAN XL analysis. The product is also suitable for universities for educational as well as research purposes.

The product features a changeable PMA adapter, which comprises the CAN transceiver, termination resistor, ESD protection circuitry, etc. The configurable scheduler enables user-specific CAN XL frame transmissions. It allows configuring the bit timing, the CAN XL frame length, and the MICI (Medium-independent CAN interface) of the Bosch CAN XL core. For this purpose, the evaluation board is connected by means of the CAN FD port to a PC dongle from Vector or Peak. The coordinator software runs on a PC. It also provides CAN XL communication statistics.

The development has reached the final stage. To handle the pricing a first non-binding feedback is requested from interested parties. Availability of the evaluation board including the PC software tool is planned for this spring.

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