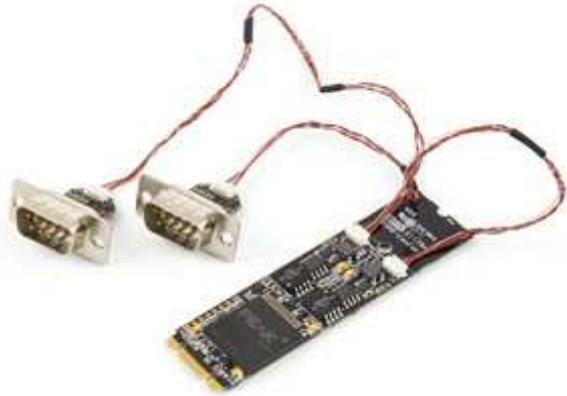




PCAN-M.2

The PCAN-M.2 allows the connection of CAN and CAN FD networks via the M.2 interface (PCIe) of modern computer boards. With its small format, the plug-in card is ideal for embedded PCs, single-board computers (SBC), and compact embedded applications. There is a galvanic isolation between the computer and the CAN side up to 300 Volts. The card is available as single and dual-channel version.



The new CAN FD standard (CAN with Flexible Data rate) is primarily characterized by higher bandwidth for data transfer. The maximum of 64 data bytes per CAN FD frame (instead of 8 so far) can be transmitted with bit rates up to 12 Mbit/s. CAN FD is downward-compatible to the CAN 2.0 A/B standard, thus CAN FD nodes can be used in existing CAN networks. However, in this case the CAN FD extensions are not applicable.

Technical Specifications

- CAN interface for the M.2 slot (uses PCIe lane)
- 1 or 2 High-speed CAN channels (ISO 11898-2)
- Form factor M.2 type: 2280/2260-B-M; height 4.6 mm
- Complies with CAN specifications 2.0 A/B and FD
- CAN FD support for ISO and Non-ISO standards switchable
- CAN FD bit rates for the data field (64 bytes max.) from 15 kbit/s up to 12 Mbit/s
- CAN bit rates from 15 kbit/s up to 1 Mbit/s
- CAN bus connection via connection cable and D-Sub, 9-pin (in accordance with CiA® 303-1)
- FPGA implementation of the CAN FD controller
- MCP2558FD CAN transceiver
- Galvanic isolation on the CAN connection up to 300 V, separate for each CAN channel
- CAN termination can be activated through a solder jumper, separately for each CAN channel
- PCIe data transfer via bus master DMA
- DMA memory access operations with 32- and 64-bit addresses
- Measurement of bus load including error frames and overload frames on the physical bus
- Induced error generation for incoming and outgoing CAN messages
- Extended operating temperature range from -40 to 85 °C (-40 to 185 °F)