

PCAN-miniPCIe FD

CAN and CAN FD Interface for PCI Express Mini (PCIe)

The PCAN-miniPCIe FD is a CAN interface for the PCI Express Mini slot. With its space-saving format, the plug-in card is a suitable solution for connecting embedded systems to up to four CAN FD and CAN networks. There is galvanic isolation of up to 300 Volts between the computer and CAN sides. The card is available as a single, dual, or four-channel version.


The monitor software PCAN-View and the programming interface PCAN-Basic for the development of applications with CAN connection are included in the scope of supply and support the standard CAN FD.

CAN FD is primarily characterized by higher bandwidth for data transfer. Further information about CAN FD can be found on page 10.



Specifications

- CAN interface for the PCI Express Mini slot (uses PCIe lane)
- 1, 2, or 4 High-speed CAN channels (ISO 11898-2)
- Form factor PCI Express Mini (only for single and dual channel versions due to the height of the four-channel version)
- 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 25 kbit/s up to 12 Mbit/s
- CAN bit rates from 25 kbit/s up to 1 Mbit/s
- CAN bus connection via connection cable and D-Sub, 9-pin (in accordance with CiA® 106)
- FPGA implementation of the CAN FD controller
- NXP TJA1044GT CAN transceiver
- Galvanic isolation on the CAN connection up to 300 V, separate for each CAN channel
- CAN termination can be activated through solder jumpers, 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)

D-Sub	Pin	Pin assignment
	1	Not connected
	2	CAN-L
	3	GND
	4	Not connected
	5	Not connected
	6	GND
	7	CAN-H
	8	Not connected
	9	Not connected

Ordering information

Designation	Part No.
PCAN-miniPCIe FD Single Channel	IPEH-004045
PCAN-miniPCIe FD Dual Channel	IPEH-004046
PCAN-miniPCIe FD Four Channel	IPEH-004047

Scope of supply

- PCAN-miniPCIe FD card
- Connection cables incl. D-Sub connector optionally 20 or 40 cm. Other lengths on request
- Device drivers for Windows 11 (x64), 10 (x64), and Linux
- CAN monitor PCAN-View for Windows (details on page 108)
- Programming interface PCAN-Basic for developing applications with CAN connection (details on page 94)
- Programming interfaces for standardized protocols from the automotive sector
- Manual in PDF format