PCAN-RS-232 FD

Programmable Converter for RS-232 to CAN and CAN FD

Product Overview

The PCAN-RS-232 FD is a programmable module for converting data traffic between its RS-232 interface and CAN FD connection. For example, machines, PLCs, sensors, and actuators with a serial interface can be flexibly integrated into classic CAN or modern CAN FD buses.

The behavior of the PCAN-RS-232 FD can be programmed freely for specific applications. The firmware is created using the included development package with GNU compiler for C and C++ and is then transferred to the module via CAN. Various programming examples facilitate the implementation of custom solutions.

On delivery, the PCAN-RS-232 FD is provided with a standard firmware that routes from CAN FD to RS-232 and vice versa. It allows configuring the data transfer as well as the hardware with serial control commands. The corresponding source code is included as an example in the scope of supply.

Specifications

- • NXP LPC54618 microcontroller with Arm® Cortex® M4 core

- • High-speed CAN connection (ISO 11898-2)
- • Complies with CAN specifications 2.0 A/B and FD
- • CAN FD bit rates for the data field (64 bytes max.) from 40 kbit/s up to 10 Mbit/s
- • CAN bit rates from 40 kbit/s up to 1 Mbit/s
- • NXP TJA1043 CAN transceiver with wake-up
- • CAN termination can be activated through solder jumpers
- • Wake-up via CAN bus switchable
- • RS-232 connection with Texas Instruments TRSF3221E transceiver
- • RS-232 bit rates up to 460,800 bit/s
- • 8 MByte QSPI flash
- • 2 digital I/Os, each usable as input (High-active) or output with Low-side switch
- • 2-color LED for status signaling
- • Connection via a 10-pole terminal strip (Phoenix)
- • Voltage supply from 8 to 32 V
- • Extended operating temperature range from -40 to +85 °C (-40 to +185 °F)
- • New firmware can be loaded via CAN interface

Scope of Supply

- • PCAN-RS-232 FD in plastic casing including mating connector
- • Windows development package with GCC ARM Embedded, flash program, and programming examples
- • Manual in PDF format

Requirements

- • The transfer of the firmware via CAN requires a PEAK CAN interface

Ordering Information

Designation	Part No.
PCAN-RS-232 FD	IPEH-003120

Note: Expected to be available in Q4 2025.