

PCAN-Router FD

Universal Programmable Converter for CAN and CAN FD

The PCAN-Router FD allows the connection to two CAN FD or CAN buses. Based on a ARM Cortex M4F microcontroller, the module's behavior and the data routing between both CAN FD channels is freely programmable. In particular, the module allows the conversion from CAN to CAN FD or vice versa. This makes it easy to accomplish the integration of CAN FD applications into existing CAN 2.0 networks.

Using the programming library and the GNU compiler for C and C++, a firmware is created and then transferred to the module via CAN. On delivery, the PCAN-Router FD is provided with a standard firmware. The corresponding source code is included as example in the scope of supply.

The module is installed in an aluminum profile casing, and is shipped in versions with two D-Sub connectors or a screw-terminal strip.



Specifications

- ___ NXP LPC4078 microcontroller (ARM Cortex M4 with FPU, 120 MHz)
- ___ On-chip 4 kByte EEPROM
- ___ 8 MByte SPI flash
- ___ Two High-speed CAN channels (ISO 11898-2)
 - Comply with CAN specifications 2.0 A/B and FD
 - CAN FD support for ISO and Non-ISO standards
 - CAN FD bit rates for the data field (64 bytes max.) from 40 kbit/s up to 12 Mbit/s
 - CAN bit rates from 40 kbit/s up to 1 Mbit/s
 - NXP TJA1043T CAN transceiver with wake-up
- ___ CAN termination can be activated through solder jumpers, separately for each CAN channel
- ___ Connections via two 9-pin D-Sub connectors or one 10-pole screw-terminal strip (Phoenix)
- ___ RS-232 connector for serial data transfer
- ___ I/O connection:
 - One digital input (Low-active)
 - One digital output (Low-side switch, max. 600 mA)
- ___ 2 additional digital inputs alternatively to RS-232 (Low-active)
- ___ Status signaling with two 2-color LEDs
- ___ Aluminum casing, optional with DIN rail fixing option available
- ___ Voltage supply from 8 to 30 V
- ___ Extended operating temperature range from -40 to +85 °C (-40 to +185 °F)
- ___ New firmware can be loaded via CAN interface

Ordering information

Designation	Part No.
PCAN-Router FD with D-Sub connectors	IPEH-002214
PCAN-Router FD with Phoenix connector	IPEH-002215

Scope of supply

- ___ PCAN-Router FD in aluminum casing
- ___ IPEH-002215: mating connector (Phoenix)
- ___ 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