



PCAN_Router FD

Universal Programmable Converter for CAN FD and CAN

The PCAN-Router FD allows the connection to two CAN FD or CAN busses. 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 demo 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
- 4 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 standard
 - 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
 - NXP TJA1044GT CAN transceiver
- Status signaling with two 2-color LEDs
- 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)
- 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
- To transfer the firmware via CAN, a PEAK CAN interface is required