# PCAN-Router Pro FD (IPEH-002220/22)



## Product Description

The PCAN-Router Pro FD by PEAK-System is a programmable 6-channel router for CAN and CAN FD with integrated I/O and data logging capabilities. It enables connection and management of multiple CAN buses, supporting both classic CAN 2.0 and modern CAN FD protocols. Equipped with analog and digital I/Os, flexible transceiver options, and internal/external memory for data logging, it is ideal for applications such as test benches and production plants. The device can convert CAN to CAN FD and vice versa, allowing integration of new CAN FD applications into existing CAN networks.

## Technical Specifications

| Feature | Specification |
|---|---|
| CAN Channels | 6 High-speed CAN channels (ISO 11898-2) |
| CAN Support | CAN 2.0 A/B and CAN FD (ISO and Non-ISO) |
| CAN FD Bit Rates | 40 kbit/s to 12 Mbit/s (data field up to 64 bytes) |
| CAN Bit Rates | 40 kbit/s to 1 Mbit/s |
| CAN Transceiver | NXP TJA1043 with wake-up (pluggable modules available) |
| Connectors | D-Sub 9-pin (CiA® 106), individually switchable termination |

| | |
|---|---|
| Digital I/Os | 2 High-side and 2 Low-side digital I/Os, configurable |
| Analog Input | 1 channel (0 to 32 V) |
| Data Recording | Logs CAN data and error frames to internal memory or SD card |
| Internal Memory | 16 GByte pSLC eMMC |
| External Memory | SD card slot for additional storage |
| USB | Access to memory via USB (log data transfer) |
| Real-time Clock | Battery-buffered RTC, wake-up capability |
| Microcontroller | STM32F765NIH6 (Arm Cortex-M7), 32 MByte SDRAM |
| Power Supply | 8 to 32 V, protected against overvoltage and reverse polarity |
| Backup Battery | Slot available for defined shutdown behavior |
| Ethernet Interface | RJ-45, 100 Mbit/s (IPEH-002222 only) |
| Housing | Aluminum with flange |
| Operating Temperature | -40 to +85 °C (-40 to +185 °F) |

## Data Logging Features

• Separate configuration for each of the 6 CAN channels

• Configurable for CAN 2.0, CAN FD ISO, or CAN FD Non-ISO per channel

• Adjustable nominal and data bit rates, Listen-Only mode

• Recording of data frames, error frames, or both

• Trace mode settings, maximum file size, and storage medium selection

• Configurable events for starting/stopping recording (power, button, CAN message)

• Timeout handling for stopping recording or shutdown (e.g., loss of power)

• Beep and LED signaling for recording events

• Automatic charging of backup battery

• Ethernet model adds FTP access and WebSocket remote control via JSON messages

## Scope of Supply

• PCAN-Router Pro FD unit in aluminum casing

• Mating connectors for I/O and power

• USB cable for memory access

• RJ-45 network patch cable (IPEH-002222 only)

• Windows development package (GCC ARM Embedded, flash tool, examples)

• PEAK-Converter software for Windows 11/10

• PDF manual

## Requirements

Firmware transfer via CAN requires a PEAK CAN interface.

## Ordering Information

• PCAN-Router Pro FD – Part No.: IPEH-002220

• PCAN-Router Pro FD with Ethernet interface – Part No.: IPEH-002222