PCAN-USB FD (IPEH-004022) - Detailed Datasheet

1. Product Overview

The PCAN-USB FD by PEAK-System is a compact USB interface that enables a computer to connect to CAN and CAN FD networks. With high-speed USB 2.0 connectivity, full support for CAN 2.0A/B and CAN FD standards, and galvanic isolation up to 500 V, this adapter is well-suited for mobile, desktop, and embedded development environments. Its simple plug-and-play operation and included monitoring and programming software make it a complete solution for CAN-based diagnostics and development.

2. Key Features

- - High-speed USB 2.0 interface (compatible with USB 1.1 and USB 3.0)
- - Supports CAN 2.0A/B and CAN FD protocols
- - CAN FD data rates from 25 kbit/s to 12 Mbit/s, up to 64-byte payloads
- - Classical CAN bit rates from 25 kbit/s to 1 Mbit/s
- - Time stamp resolution of 1 µs
- - Galvanic isolation up to 500 V between PC and CAN network
- - D-Sub 9-pin CAN connection (CiA® 106 compliant)
- - CAN transceiver: NXP TJA1044GT
- - FPGA implementation of the CAN FD controller
- - CAN termination via solder jumper

- - Optional +5 V supply to CAN via jumper (e.g., for external converters)
- - Error injection and overload frame support
- - Bus load measurement including error and overload frames
- - Powered via USB, no external supply required
- - Operating temperature: -40 °C to +85 °C
- - Compact and rugged plastic housing

3. Technical Specifications

CAN Bit Rate: 25 kbit/s to 1 Mbit/s

CAN FD Bit Rate: 25 kbit/s to 12 Mbit/s (data field, up to 64 bytes)

Time Stamp Resolution: 1 µs

CAN Standard: ISO 11898-2, CAN 2.0A/B, CAN FD (ISO/Non-ISO)

CAN Controller: FPGA-based implementation

CAN Transceiver: NXP TJA1044GT

Galvanic Isolation: Up to 500 V

Operating Temperature: -40 °C to +85 °C

Power Supply: Via USB

Connector: D-Sub, 9-pin (CiA® 106)

4. D-Sub 9 Connector Pinout

Pin	Function
1	Not connected / optional +5V
2	CAN-L
3	GND
4	Not connected
5	Not connected
6	GND
7	CAN-H
8	Not connected
9	Not connected

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