TC1017

Product Overview

The TC1017 is a multi-channel CAN FD to USB interface device designed for whole vehicle data acquisition, domain controller testing, and various automated testing systems. It supports up to 12 CAN FD/CAN/LIN channels for flexible bus development, simulation, and testing.

Paired with the powerful TSMaster software, it supports loading DBC and ARXML database files for convenient monitoring, analysis, and simulation of CAN FD bus data. It also supports functionalities such as UDS diagnostics, ECU flashing, CCP/XCP calibration, and more.

The device provides secondary development APIs for Windows and Linux, supporting programming environments like C++, C#, LabView, and Python, enabling seamless integration into diverse testing systems.

Key Features

- Microsecond-level hardware message timestamping
- Driverless design for Windows and Linux
- 8-channel isolated CAN FD interface (DB9 via DB37 adapter)
- With USB power: 4 channels full Tx/Rx, 8 channels Rx only
- With external DC power: full Tx/Rx on all 8 channels
- CAN channel isolation up to DC 2500 V

- Supports dbc, a2l, asc, and arxml file formats
- Recording in blf and asc formats with offline/online playback
- Supports UDS diagnostics and CCP/XCP calibration
- Supports UDS-based Flash Bootloader
- Secondary development APIs for Windows and Linux
- Supports all paid licenses for TSMaster
- Future support planned for offline gateway usage

Technical Specifications

- Network Device: 8 x CAN FD
- PC Interface: USB 2.0
- CAN Interface: DB37 with DB9 adapter cables
- Driver: Driver-free for Windows and Linux
- Buffer: Each channel supports up to 700 CAN FD frames (64 bytes)
- CAN: Supports CAN 2.0A/B (ISO11898-1), baud 5 Kbps – 1 Mbps
- CAN FD: ISO and non-ISO, baud 100 Kbps – 8 Mbps
- Timestamp Precision: 1 µs hardware timestamp
- Termination Resistor: Built-in 120-ohm, software configurable
- Messages Sent/sec: Max. 17,000
- Messages Received/sec: Max. 17,000
- Isolation: DC 2500 V, ESD ±8 kV (contact)
- Power Supply: DC 7–18 V
- Operating Temperature: -40 °C to +85 °C
- Casing Material: Aluminum
- Dimensions: 106 × 84 × 32 mm

Connector Pinout

- Standard DB37 connector with adapter cable to 8 × DB9 CAN FD ports
- Each DB9 provides CAN_H, CAN_L, and GND pins
- Configurable termination via software

Ordering Information

- Product Name: TC1017
- Model Number: 8-channel CAN FD to USB interface

Scope of Supply:

- TC1017 device
- USB cable
- DB37 to 8×DB9 adapter cable
- DC 12V power supply
- Additional DB37 adapter cable