

# TC1018

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## Product Overview

The TC1018 is a 12-channel CAN FD to USB interface device, designed for whole vehicle multi-channel data acquisition, domain controller testing, and automated testing systems. It provides robust support for CAN FD/CAN network development, simulation, and testing.

Seamlessly integrated with the powerful TSMaster software, it supports loading DBC and ARXML database files for convenient monitoring, analysis, and simulation of CAN FD bus data. Additionally, it supports 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. This ensures flexibility and easy integration into diverse testing systems.

## Key Features

- Microsecond-level hardware timestamping
- Windows plug-and-play driverless design
- 12 isolated CAN FD channels via DB37-to-DB9 adapter cables

- With USB power: 4 channels Tx/Rx, 8 channels Rx only
- With external DC power: full Tx/Rx on all 12 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 for offline gateway mode (planned)

## Technical Specifications

- Network Device: 12 x CAN FD
- PC Interface: USB 2.0
- CAN Interface: DB37 with DB9 adapter cables
- Driver: Driver-free for Windows
- 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  $\mu$ s 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  $\pm$ 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

- DB37 connector with adapter cable to 12 × DB9 CAN FD ports
- Each DB9 provides CAN\_H, CAN\_L, and GND pins
- Configurable termination via software

## Ordering Information

- Product Name: TC1018
- Model Number: 12-channel CAN FD to USB interface

**Scope of Supply:**

- TC1018 device
- USB cable
- DB37 to 12×DB9 adapter cable
- DC 12V power adapter