

## TC1034

**2 channels of FlexRay,  
2 channels of CAN FD.**



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### Classic Application:

- FlexRay Bus Flexible Analysis
- Precise Time Analysis of Bus Communication Data
- ECU Testing Analysis and Gateway Applications

## Feature Overview

TC1034 is a device with a 2 channel FlexRay and 2 channel CAN FD bus to USB interface. It easily handles tasks such as FlexRay network development, simulation, and testing.

TC1034 is operated through TSMaster software, allowing multiple TC1034 devices to be used in parallel or to work together with other FlexRay products from the same company. When used with CAN, LIN, or automotive Ethernet interface tools from the same manufacturer, the TC1034 enables a single PC to perform high-performance multi-bus analysis and simulation. It is suitable for use by developers, testers, ECU production lines, and test engineers.

## Product Features

- Automotive-grade design, supporting dbc, a2l, blf, asc, and arxml files
- Supports blf and asc format data logging and offline/online playback
- Supports UDS diagnostics and CCP/XCP calibration
- Supports UDS-based Flash Bootloader
- Equipped with an auxiliary communication controller, requiring no additional nodes during cold start
- Perfectly adapted for FlexRay, CAN/CAN FD bus applications based on TSMaster
- Provides secondary development interfaces for Windows and Linux systems

## Primary functions of FlexRay

- The communication controller buffer can be flexibly configured
- Can detect empty frames
- Supports composite communication modes composed of multiple cycles (Cycle multiplexing)
- Supports frame payloads up to 254 bytes
- Supports PDUs (Protocol Data Units)
- Has startup monitoring function
- Supports FlexRay message logging and playback
- The two FlexRay channels can be used in parallel as two FlexRay nodes

## Specification

Channel	2 x FlexRay / 2 x CAN FD
PC End	USB 2.0 interface
CAN/FlexRay End	DB9 interface
Driver	Driver-free design for Windows systems, with system compatibility
FlexRay	FlexRay channels (A and B)
Cold startup	Supportive
Buffer	Each channel supports a transmit buffer of up to 1000 CAN frames
CAN	Supports CAN 2.0A, B protocols, compliant with ISO11898-1 standard, with baud rate 125Kbps-1Mbps
CAN FD	Supports CAN FD that complies with both ISO and non-ISO standards, with baud rates from 125Kbps to 8Mbps
Timestamp	1 $\mu$ s hardware message timestamp
Isolation	CAN/FlexRay channel isolated at DC 2500V, with ESD protection of $\pm 4$ KV (contact discharge) and $\pm 8$ KV (air discharge)
CAN Terminal Resistor*	Built-in 120-ohm resistor configurable via software
FlexRay Terminal Resistor*	Built-in 100-ohm resistor configurable via software
Power Supply	USB powered
Casing Material	Metal
Operating Temperature	-40°C to 80°C
Operating Environment	10% to 90% (non-condensing)
Operating Humidity	Keep away from corrosive gases

\*Single channel at 1 Mbps with a 0-byte data field

## Ordering information

Product Name	Model Number	Function Description
Network Device	TC1034	2 channel CAN FD / FlexRay to USB interface

## Shipping list

- TC1034 device
- USB Cable \*1
- DB9 female to two DB9 male CAN cable \*1 (CAN)
- DB9 female to two DB9 male CAN cable\*1 (FlexRay)

## Pin definition

- Left: FlexRay 1/2
- Right: CAN FD 1/2

