TOSUN

TC1034

2 channels of FlexRay,
2 channels of CAN FD.

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 that supports 2 channels of FlexRay and 2 channels of CAN FD bus interfaces, connecting to a computer through a USB interface. It effortlessly handles tasks such as FlexRay network development, simulation, and testing.

Operated by the TSMaster software, TC1034 allows multiple TC1034 devices to be used simultaneously or in conjunction with other FlexRay products from TOSUN. When used alongside CAN, LIN, and automotive Ethernet interface tools from the same company, TC1034 empowers a single PC with high-performance, multi-bus analysis, and simulation capabilities. It is suitable for use by research and development personnel, testing personnel, ECU production lines, and test engineers.

Primary functions of FlexRay

- Flexible configuration of communication controller cache
- Detectable empty frames
- Capable of composing compound communication modes from multiple cycles
- Supports a maximum frame payload of 254 bytes
- Supports PDUs (Protocol Data Units)
- Supports startup monitoring function
- Supports FlexRay message recording and playback
- 2 FlexRay channels can be used in parallel as two FlexRay nodes

Product Features

- Windows, Linux system driver-free design, with system compatibility
- Internal support for 700KB transmission buffer space, capable of concurrently storing 240 transmission configurations
- 2 channels of FlexRay (each channel includes A and B)
- 2 channels of CAN FD
- Adjustable CAN channel baud rate from 125Kbps to 8Mbps
- Auxiliary communication controller, no additional nodes required during cold startup
- Perfectly compatible with FlexRay, CAN/CAN FD bus applications based on TSMaster
- Supports secondary development interfaces for Windows, Linux systems
- Built-in 120-ohm terminal resistor for the CAN side, software configurable
- Built-in 100-ohm terminal resistor for the FlexRay side, software configurable

Specification

Channels	2 x FlexRay / 2 x CAN FD
PC side	USB 2.0 interface
CAN End	2 x DB9 connector
FlexRay End	2 x DB9 connector
Driver	Driver-free design for Windows systems, with system compatibility
FlexRay	FlexRay channels (A and B)
Cold startup	Supportive
CAN	CAN 2.0A/B protocol, compliant with ISO11898-1 specifications, baud rate from 5Kbps to 1Mbps
CAN FD	ISO and non-ISO standard CAN FD, baud rate from 100Kbps to 8Mbps
Timestamp Precision	1 μs hardware message timestamp
Isolation	DC2500V isolation for FlexRay/CAN channels, electrostatic discharge level contact discharge ±8KV
CAN terminal resistor	Built-in 120-ohm resistor configurable via software
FlexRay terminal resistor	Built-in 100-ohm resistor configurable via software
Power supply method	USB powered
Enclosure material	Aluminum
Operating temperature	-40°C to 80°C
Operating environment	10% to 90% (non-condensing)
Operating humidity	Keep away from corrosive gases

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
- DB9 female to two male CAN cable harness
- DB9 female to two male FlexRay cable harness

Pin definition

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

5 → Flexray_BM4
9 → Flexray_BP4
4 → Flexray_BM3
8 → Flexray_BP3
3 → Flexray_GND
7 → Flexray_BP1
2 → Flexray_BM1
6 → Flexray_BP2
1 → Flexray_BM2

5 → CANFD_Shield
4 → CANFD2_Low
8 → CANFD2_High
3 → CANFD_GND
7 → CANFD1_High
2 → CANFD1_Low