

# TP1034

**2 channels of FlexRay,  
2 channels of CAN FD to PCIe interface**



## Classic Application:

- Flexible analysis of FlexRay bus
- Precise time analysis of bus communication data
- ECU testing, analysis, and gateway applications
- Various types of automated test benches

## Feature Overview

TP1034 offers a 2 channel FlexRay and 2 channel CAN FD bus, designed with a PCIe interface for seamless integration. It excels in tasks such as FlexRay network development, simulation, and testing. Controlled by the TSMaster software, TP1034 facilitates the parallel application of multiple units or collaborative work with other TOSUN products. When used alongside TOSUN's CAN, LIN, and Automotive Ethernet tools, TP1034 empowers a single PC with high-performance multi-bus analysis and simulation capabilities. It is well-suited for use by testers, ECU production lines, and test engineers.

## Characteristics

- Designed for plug-and-play on Windows systems, ensuring system compatibility
- 2 FlexRay channels (each channel includes A and B, supports internal bridging for using as one channel, can be individually cold-started)
- 2 CAN FD channels
- The FlexRay channel internally supports 700KB of transmit buffer space, concurrently storing 240 transmit configurations
- Equipped with an auxiliary communication controller, no need to add additional nodes during cold start
- Perfectly compatible with FlexRay, CAN/CAN FD bus applications based on TSMaster
- Compact design, especially suitable for mobile applications
- Supports secondary development interfaces for Windows systems
- CAN end has a built-in 120-ohm terminal resistor configurable through software
- FlexRay end has a built-in 100-ohm terminal resistor configurable through software

## Specification

Channel	2 x FlexRay / 2 x CAN FD
PC End	Standard PCIe interface
Driver	Windows system plug-and-play design, ensuring system compatibility
FlexRay	FlexRay channels (A and B)
Cold start	Supported
CAN	Supports CAN 2.0A, B protocols, complies with ISO 11898-1 standard, baud rates: 5Kbps to 1Mbps
CAN FD	Supports ISO and non-ISO standard CAN FD, baud rates: 100Kbps–8Mbps
Timestamp	1µs hardware timestamp accuracy
Isolation	FlexRay/CAN channels DC 2500V isolation, electrostatic discharge contact discharge ±8KV
CAN terminal resistor	Built-in 120-ohm terminal resistor, configurable via software
FlexRay terminal resistor	Built-in 100-ohm terminal resistor, configurable via software
Power supply	PCIe interface
Operating temperature	-40°C to 85°C
Product dimensions	128mm x 98mm x 21.5mm

## Ordering Information

Product Name	Model Number	Function Description
Network devices	TP1034	2 channels of FlexRay, 2 channels of CAN FD to PCIe interface

## Main functions

- Configurable communication controller cache
- Detect empty frames
- Can form a composite communication mode with multiple cycles (Cycle multiplexing)
- Supports a maximum payload of 254 bytes
- Supports PDUs
- Has startup monitoring functionality
- Supports FlexRay message recording and playback
- 2 FlexRay channels can be parallelly used as two FlexRay nodes

## Shipping list

- TP1034 Board Card
- DB9 Female to Dual Male Splitter Cable1 (CAN)
- DB9 Female to Dual Male Splitter Cable1 (FlexRay)

