

TC1034Pro+

2 channels of CAN FD/FlexRay bus



Scan the code to follow



Classic Application:

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

Feature Overview

The TC1034 Pro+ is a 2 channel CAN FD bus, 2 channel FlexRay bus, and I/O interfaces device launched by TOSUN, with a maximum data rate of 8 Mbps for CAN FD. The product uses a USB 2.0 interface to connect with the PC and features a driverless design for Windows system, ensuring excellent system compatibility.

Compatible with TSMaster software for loading DBC and ARXML database files. Supports CAN, CAN FD, LIN, and FlexRay network monitoring, analysis, and simulation. Advanced functions include UDS diagnostics, ECU flashing, and CCP/XCP calibration.

The secondary development APIs for Windows and Linux can support various development environments such as C++, C#, LabView, Python, etc., making it highly efficient and easy to use, and is convenient to integrate into various testing systems.

Characteristics

- μ s (microsecond) level hardware message timestamps to meet advanced requirements
- Driverless design for Windows system
- CAN channel baud rate adjustable from 125 Kbps to 1 Mbps, and CAN FD supports a maximum of 8 Mbps
- Built in 120 ohm terminal resistor for CAN, with the resistance value configurable through software
- Built in 100 ohm terminal resistor for FlexRay, with the resistance value configurable through software
- Auxiliary communication controller, eliminating the need to add extra nodes during cold starts
- CAN supports Self ACK self acknowledgment configuration
- Supports blf and asc format data recording and offline/online playback
- Supports hardware time synchronization across multiple device
- Provides API based sample projects for easy secondary development

Specification

Channel	2 x CAN FD / 2 x FlexRay / 4 x DIDO / 3 x AIAO
PC Interface	USB 2.0
CAN FD Interface	DB9
Driver	Driver-free design for Windows and Linux systems, ensuring system compatibility
Buffer	Each channel supports a transmit buffer of up to 1000 CAN frames
CAN	Supports CAN 2.0 A and B protocols, compliant with ISO11898-1 standard, with baud rate 125 Kbps to 1 Mbps
CAN FD	Supports CAN FD that complies with both ISO and non-ISO standards, with baud rates from 125 Kbps to 8 Mbps
DIDO	DI: 0 ~ 40 V ; Vref: 0 ~ 3.3 V, Threshold range: $V_{AH} = (330 + 499 \cdot V_{ref}) / 1098$; Val = $0.455 \cdot V_{ref}$ DO: Low level 0 V, high level 5 V / 12 V (use with load unsupported)
AIAO	AI: 0 ~ 39 V ; AO: 0 ~ 30 V
Timestamp Accuracy	1 μ s hardware message timestamp
CAN Terminal Resistor	Built in 120 ohm resistor, software configurable
FlexRay Terminal Resistor	Built in 100 ohm resistor, software configurable
Messages Sent per Second*	Up to 20,000 frames per second
Messages Received per Second*	Up to 20,000 frames per second
Isolation	CAN channel DC 2500V isolation, with an electrostatic discharge level of ± 2 KV for contact discharge and ± 15 KV for air discharge
Power Supply	9 to 32 V DC power supply
Power Consumption	4 W / 10 W (DO full channel push pull mode PWM output)
Casing Material	Metal
Dimension	Approx. 178 x 113 x 38 mm
Weight	Approx. 433 g (without packaging)/Approx. 922 g (with packaging)
Operating Temperature	-40°C ~ 80°C
Operating Humidity	10% ~ 90% (non-condensing)
Operating Environment	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	TC1034Pro+	2 channels of CAN FD / FlexRay bus

Shipping list

- TC1034Pro+ device
- USB Cable
- 12 V 2 A power adapter
- DB9 female to dual male signal cable (CAN)
- DB9 female to dual male signal cable (FlexRay)
- DB9 solid non solder male connector



USB Cable



DB9 male



12 V 2 A adapter



DB9 adapter cable
(CAN)



DB9 adapter cable
(FlexRay)

Pin definition

- Left: FlexRay 1/2
- Right: CAN FD 1/2
- Bottom: I/O

