

TC1038Pro

2 channels of FlexRay, 12 channels of LIN, 12 channels of CAN FD



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Classic Application:

- Multi-Channel CAN/LIN/FlexRay Interface for Data Acquisition
- Domain controller testing
- Various automated testing systems
- Bench testing and calibration

Feature Overview

TC1038 Pro is a multi-bus simulation and testing tool, supporting 12 channels of CAN FD, 12 channels of LIN, and 2 channels of FlexRay; it can easily handle vehicle network development, simulation, testing, and validation tasks.

TC1038 Pro connects to a PC via Ethernet, ensuring high-speed data transmission, preventing communication bottlenecks even during extensive bus data processing. The driver-free design for Windows systems ensures excellent system compatibility.

With the powerful TSMaster software, it supports loading DBC, LDF, ARXML, and Fibex database files, making it easy to monitor, analyze, and simulate vehicle bus data. It also supports UDS diagnostics, ECU flashing, and CCP/XCP calibration.

It features API support for Windows and Linux, compatible with various development environments such as C++, C#, LabView, and Python, making integration into various testing systems efficient and user-friendly.

Product Features

- Hardware message timestamp with a precision of microseconds, meeting high-level requirements
- 12 channels of CAN/CAN FD, CAN baud rate range from 125Kbps to 1Mbps, CAN FD supports up to 8Mbps
- 12 LIN master/slave nodes can be software-configured, supporting baud rates from 0 to 20Kbps
- 2 FlexRay channels (each channel includes A and B, supporting internal bridging as one channel, and cold start on a single device)
- FlexRay channel features a 700KB transmit buffer, capable of concurrently storing 240 transmit configurations
- FlexRay includes an auxiliary communication controller, enabling cold start without additional nodes
- Supports DIDO (4 channels) and AIAO (3 channels)
- Supports UDS diagnostics and UDS-based flashing
- Supports CCP/XCP calibration
- Comes with secondary development API interfaces for Windows and Linux systems
- Supports all paid licenses for TSMaster software
- Equipped with a synchronization interface, supports hardware time synchronization across multiple devices

Specification

Channel	12 x CAN FD / 12 x LIN / 2 x FlexRay / 4 x DIDO / 3 x AIAO
PC End	RJ45
CAN End	DB37 male connector (comes with DB37 to 12 DB9 adapter cable)
FlexRay / LIN End	DB9 male connector
I/O End	DB9 female connector
Driver	Driver-free design for Windows system, with excellent system compatibility
Buffer	Each channel supports a transmit buffer of up to 1000 CAN frames
CAN	Supports CAN2.0A and B protocols, compliant with ISO11898-1 standard, baud rate 125Kbps—1Mbps
CAN FD	Supports both ISO and non-ISO standards for CAN FD, baud rate 125Kbps—8Mbps
FlexRay	FlexRay channel (A and B), supports cold start
LIN	Supports LIN 1.3/2.0/2.1/J2602 , baud rate 0~20Kbps
Timestamp	1 μ s hardware message timestamp
Terminal Resistor	Built-in 120-ohm terminal resistor for CAN, configurable via software Built-in 100-ohm terminal resistor for FlexRay, configurable via software
Isolation	DC2500V isolation for CAN/FlexRay channels
DIDO	DI: 0-40V, Vref: 0-3.3V DO: Low level 0V, high level 5V/12V (not suitable for load-bearing use)
AIAO	AI: 0-40V, AO: 0-30V
Power Supply	DC 9-28V, power consumption 10W @ 12V
Operating Temperature	-40°C~80°C
Casing Material	Metal
Dimensions	210 x 118 x 47mm

Ordering information

Product Name	Model Number	Function Description
Network Device	TC1038Pro	12 channel CAN FD, 12 channel LIN, 2 channel FlexRay bus analyzer

Shipping list

- TC1038Pro device
- DC 12V 2A Power Adapter
- RJ45 Category 6 Gigabit Ethernet Cable
- DB37 Female to 12 DB9 Male Cable (CAN FD/CAN)
- DB9 Female to 2 DB9 Male Cable (FlexRay)
- DB9 Female to 9 Banana Plug Cable Harness
- DB9 Male Splitter Board



• 12V 2A Adapter



• Cat 6 Cable



• DB37 to 12 DB9 (CAN FD)



• DB9 to 2 DB9 (FlexRay)



• DB9 to 9 Banana Plug

Pin definition

- Top Left: I/O
- Top Right: LIN 7-12
- Bottom Left: FlexRay 1/2
- Bottom Right: LIN 1-6

