TOSUN

TP1018

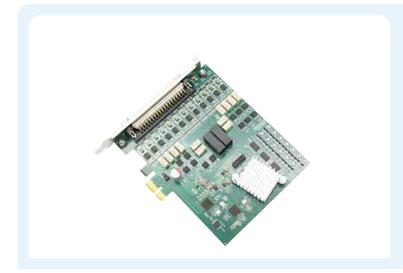## 12 channel CAN FD to PCIe interface

Classic Application:

- Autonomous driving data collection
- Various automated testing systems
- ECU flashing

Feature Overview

TP1018 is a device featuring a 12 channel CAN FD bus to PCIeinterface; it easily handles tasks such as CAN FD/CAN network development, simulation, and testing.The TP1018 interface card allows computers with PCIe slots to conveniently connect to CAN/CAN FD bus networks, monitoring multiple bus networks in real-time. It is compact in size and can be easily integrated into onboard industrial control computers, single-board computers (SBCs), portable industrial host machines, and industrial laptops. It's easy to install and use.

When paired with the powerful TSMaster software, it offers convenient monitoring, analysis, and simulation of CAN FD bus data. It also supports functionalities like UDS diagnostics, ECU flashing, and CCP/XCP calibration.

Its secondary development API supports various development environments such as C++, C#, LabView, Python,making it convenient to integrate into various testing systems while being efficient and user-friendly.

Characteristics

- Hardware-level message timestamping in microseconds, meeting advanced requirements
- Supports secondary development interfaces for Windows and Linux systems
- Due to system limitations in Linux, it cannot run all channels at full load
- Standard PCIe x1 interface
- Number of channels: 12 channel isolated CAN FD interface, offering standard DB-9 connectors via adapter cables
- CAN channel isolation up to DC 2500V
- Automotive grade design, supporting DBC, A2L, BLF, ASC, and ARXML files
- Supports BLF and ASC format data recording and offline/online playback
- Supports UDS diagnostics and CCP/XCP calibration
- Supports UDS-based Flash Bootloader
- Supplementary secondary development APIs for Windows and Linux systems
- Can load all paid licenses for TSMaster software

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Specification

Channel	12 x CAN FD
PC End	Standard PCIe interface
Drivers	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 2.0A, 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 100Kbps to 8Mbps
Timestamp	1 µs hardware message timestamp
Terminal Resistor	Built-in 120-ohm termination resistor, software configurable
Messages Rreceived per Second	Maximum of 20,000 frames/second
Messages Sent per Second	Maximum of 20,000 frames/second
Isolation	CAN channel isolation up to DC 2500V
Power Supply	PCIe
Dimensions	128 x 120 x 21.5 mm
Operating Temperature	-40ºC to 70ºC

Ordering Information

Product Name	Model Number	Function Description
Network Device	TP1018	12 channel CAN FD to PCIe interface

Shipping list

- TP1018 board
- DB37 to 12 DB9 adapter cable

TP1018 Board

DB37 to 12 DB9 adapter cable