TOSUN

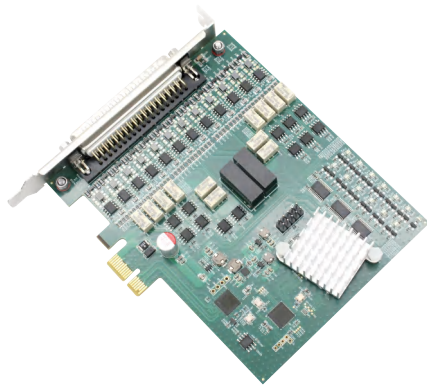# TP1018

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 PCIe interface; 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
- Windows/Linux system plug-and-play design, ensuring system compatibility
- 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
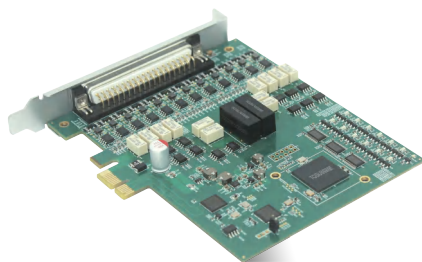- Can load all paid licenses for TSMaster software

Specification

Channel	12*CAN FD
PC End	Standard PCIe interface
Drivers	Driverless design for Windows and Linux systems, ensuring system compatibility
Buffer	Each channel supports a transmit buffer of up to 1000 CAN frames
CAN	Supports CAN2.0A/B protocols, complying with ISO11898-1 standard, with a baud rate of 5Kbps—1Mbps
CAN FD	Supports ISO and non-ISO standards of CAN FD, with a baud rate of 100Kbps—8Mbps
Timestamp accuracy	1 s hardware message timestamp
Terminal Resistor	Built-in 120-ohm terminal resistor configurable via software
Messages received per second	Maximum of 20,000 frames per second (sent and received)
Messages sent per second	Maximum of 20,000 frames per second (sent and received)
Isolation	CAN channel isolation up to DC 2500V
Power supply	PCIe
Size	128mm*120mm*21.5mm
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 card
· DB37 to 12 DB9 interfaces

TP1018 Board Card

DB37 to 12 DB9 Interface Adapter