

TC1018Pro

12 channel CAN FD bus and I/O interfaces



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Classic Application:

- Whole vehicle multi-channel CAN FD/CAN/LIN bus data acquisition
- Domain controller testing
- Various automated testing systems

Feature Overview

The TC1018 Pro is a 12 channel CAN FD bus and I/O interfaces device launched by TOSUN. It supports adjustable baud rates from 125 Kbps to 1 Mbps under the CAN protocol and up to 8 Mbps under the CAN FD protocol. 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.

With the powerful TSMaster software, it supports loading DBC and ARXML database files, making it very convenient to monitor, analyze, and simulate CAN FD bus data, and it also supports functions such as UDS diagnostics, ECU flashing, CCP/XCP calibration, etc.

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 and Linux systems
- 12 channel CAN/CAN FD
- Supports DIDO x 4 and AIAO x 3
- 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
- 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	12 x CAN FD / 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 700 CAN frames
CAN	Supports CAN 2.0 A and B protocols, compliant with the ISO 11898 1 standard, with baud rates from 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: $VAH=(330+499*Vref)/1098$; Val=0.455*Vref 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
Terminal Resistor	Built in 120 ohm terminal 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 2500 V isolation, with an electrostatic discharge level of ± 4 KV for contact discharge and ± 15 KV for air discharge
Power Supply	9 to 32V DC power supply
Power Consumption	6 W / 12 W (DO full channel push pull mode PWM output)
Case Material	Metal
Dimension	Approx. 178 x 113 x 38 mm
Weight	Approx. 435 g (without packaging)/Approx. 1542 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

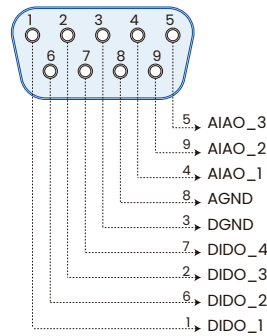
Ordering information

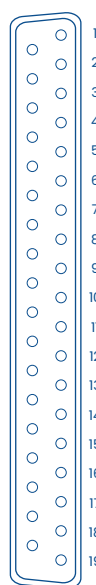
Product Name	Model Number	Function Description
Network Device	TC1018Pro	12 channel CAN FD bus and I/O interfaces

Shipping list

- TC1018Pro device
- USB Cable
- DB37 female to 12 male signal cable
- 12 V 2 A power adapter
- DB9 solid non solder male connector

Pin definition



DB15 PIN	PIN Number	Definition	PIN Number	Definition	PIN Number	Definition
	PIN 1	CAN FD 1_Low	PIN 2	CAN FD_GND	PIN 3	CAN FD 2_Low
	PIN 4	CAN FD 3_Low	PIN 5	CAN FD_GND	PIN 6	CAN FD 4_Low
	PIN 7	CAN FD 5_Low	PIN 8	CAN FD_GND	PIN 9	CAN FD 6_Low
	PIN 10	CAN FD 7_Low	PIN 11	CAN FD_GND	PIN 12	CAN FD 8_Low
	PIN 13	CAN FD 9_Low	PIN 14	CAN FD_GND	PIN 15	CAN FD 10_Low
	PIN 16	CAN FD 11_Low	PIN 17	CAN FD_GND	PIN 18	CAN FD 12_Low
	PIN 19	CAN FD_GND	PIN 20	CAN FD 1_High	PIN 21	CAN FD_Shield
	PIN 22	CAN FD 2_High	PIN 23	CAN FD 3_High	PIN 24	CAN FD_Shield
	PIN 25	CAN FD 4_High	PIN 26	CAN FD 5_High	PIN 27	CAN FD_Shield
	PIN 28	CAN FD 6_High	PIN 29	CAN FD 7_High	PIN 30	CAN FD_Shield
	PIN 31	CAN FD 8_High	PIN 32	CAN FD 9_High	PIN 33	CAN FD_Shield
	PIN 34	CAN FD 10_High	PIN 35	CAN FD 11_High	PIN 36	CAN FD_Shield
	PIN 37	CAN FD 12_High				