TOSUN

TC1052

CAN FD/10Base-T1S to USB interface

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Classic Application:

- CAN FD/10Base-T1S synchronized acquisition
- Domain controller testing & diagnostics
- Support automated test and durability systems
- Vehicle diagnostics, ECU calibration, and flashing

Feature Overview

The TC1052 is a communication tool from TOSUN 1 channel 10BASE-T1S and 2 channel CAN FD-to-USB interfaces. It allows raw 10 BASE-T1S or CAN FD frames to be transmitted to a PC via USB, and PC-originated frames to be sent back to the 10 BASE-T1S or CAN FD networks.

Used with TSMaster, the TC1052 supports Ethernet data monitoring, simulation, analysis, and testing, including DoIP and SOME/IP protocol functions.

In addition to 10 BASE-T1S, the TC1052 provides two CAN FD channels (up to 8 Mbps), supporting DBC and ARXML databases for convenient monitoring, analysis, and simulation. It also supports UDS diagnostics, ECU flashing, and CCP/XCP calibration.

The TC1052 connects to the PC via USB and requires no external power, offering simple and convenient operation.

Characteristics

- µs-level hardware timestamps provide accurate timing for advanced simulation and diagnostics
- Driver-free USB 2.0 design; fully compatible with Windows/Linux
- CAN channels feature DC2500V isolation and automotive-grade robustness
- Software-configurable 120 Ω CAN termination; 100 Ω T1S termination; supports software-set node ID, node count, and timeout parameters for easy T1S network setup

Platform	Supported APIs
Windows	TSMaster, Libtscan, TSdev
Linux x64	Libtscan, TSdev
Linux ARM64	TSdev
HarmonyOS	TSdev

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Specification

PC Interface	USB 2.0
Timestamp Accuracy	1 µs hardware message timestamp
Driver	Cross-platform driver-free design
Interface PIN	Standard D-Sub, 9-pin
License	Compatible with all TSMaster paid license modules
Power Supply	USB power supply
Power Consumption	2 W
ESD Protection Level	Contact Discharge: 8 kV, Air Discharge: 15 kV
Case Material	Metal
Dimension	Approx. 113 x 98 x 38 mm
Weight	Approx. 237 g
Operating Temperature	-40°C ~ 80°C
Operating Humidity	10% ~ 90% (non-condensing)

CAN FD

CAN Connection Standard	High-speed CAN connection (ISO 11898-2 compliant)
Protocol Support	Full support for CAN and CAN FD protocols (ISO 11898-1 compliant)
CAN Baud Rate Range	Configurable from 125 kbps to 1 Mbps
CAN Data Length	Supports up to 8-byte CAN frames
CAN FD Baud Rate Range	Configurable from 125 kbps to 8 Mbps
CAN FD Data Length	Supports up to 64-byte CAN FD frames; BRS supported
Max Frame Rate (Tx/Rx)	Max TX rate: 15,000 fps; Max RX rate: 20,000 fps
Terminal Resistance	Built-in 120 Ω termination per CAN channel
Relay Type	Latching relay
Surge Protection	Integrated surge protection

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10Base-T1S

Rate	Supports up to 10 Mbps
Terminal Resistance	10BASE-T1S channel with configurable 100 Ω termination
Relay Type	Latching relay
Collision Control	Collision management via PLCA
Communication Mechanism	Half-duplex multi-drop communication
Ethernet Technology	Single-pair Ethernet (SPE) technology

Ordering information

Product Name	Model Number	Function Description
Network Device	TC1052	CAN FD/10Base-T1S to USB interface

Shipping list

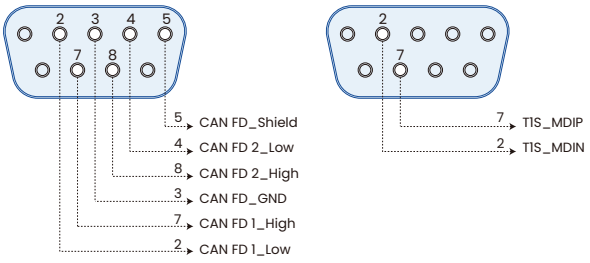
- TC1054Pro device
- USB cable
- DB9 female to 2 male signal cable (CAN)

DB9 adapter cable (CAN)

USB cable

Pin definition

- Left: CAN FD 1/2
- Right: 10 Base_T1S



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