TOSUN

TC1013

Dual-channel CAN FD bus interface

Classic Application:

- ECU data acquisition
- Various test benches
- ECU flashing
- ECU calibration

Feature Overview

TC1013 is a portable and easy-to-install device launched by TOSUN, providing a 2 channel CAN FD bus to USB interface. With a maximum speed of 8 Mbps, it connects to a PC via a high-speed USB 2.0 interface, designed with driverless compatibility for Windows systems.

Paired with the robust TSMaster software, it supports loading DBC and ARXML database files, enabling convenient monitoring, analysis, and simulation of CAN FD bus data. Additionally, it facilitates functionalities such as UDS diagnostics, ECU flashing, CCP/XCP calibration, among others.

This device offers secondary development APIs for Windows and Linux, supporting various development environments like C++, C#, LabView, Python, etc. This flexibility allows for seamless integration into diverse testing systems, ensuring efficiency and user-friendliness.

Characteristics

- Hardware message timestamping at the microsecond (μs) level, meeting advanced requirements
- Portable design with uniquely designed mounting holes, facilitating integration into various devices or instrument panels
- High-speed USB 2.0 interface with driverless compatibility for Windows and Linux systems, ensuring system compatibility
- CAN channel isolation up to DC2500V
- Automotive-grade design supporting dbc, a2l, blf, and asc file formats
- Adjustable CAN bus baud rates from 125Kbps to 8Mbps
- Support for recording data in blf and asc formats, enabling offline/online playback
- Capabilities for UDS diagnostics and CCP calibration
- Support for UDS-based Flash Bootloader
- Secondary development interfaces for Windows and Linux systems
- Built-in 120-ohm terminal resistor, software-configurable
- Ability to load all paid licenses for TSMaster

Specification

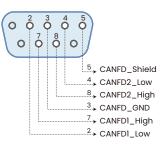|	
Channel	2 x CAN FD
PC End	High-speed USB 2.0 interface
CAN End	DB9 interface
Driver	Driverless design for Windows and Linux systems, ensuring system compatibility
Buffer	Each channel supports a transmit buffer of up to 1000 CAN frames
CAN	Supports CAN 2.0A, 2.0B protocols, compliant with ISO11898-1 standard, with baud rates ranging from 5Kbps to 1Mbps
CAN FD	Supports both ISO and non-ISO standard CAN FD with baud rates from 125Kbps to 8Mbps
Terminal resistance	Built-in 120-ohm terminal resistors, configurable via software
Timestamp	1us hardware message timestamp
Messages sent per second*	Maximum of 20,000 frames per second
Messages received per second*	Maximum of 20,000 frames per second
Isolation	CAN channel DC2500V isolation, ESD level contact discharge ±8KV
Power supply	USB-powered
Casing material	Plastic
Operating temperature	-40℃ to 85℃
Operating humidity	10% to 90% (non-condensing)
Operating environment	Keep away from corrosive gases

*Single channel at 1Mbps with 0-byte data field scenario

Ordering Information

Product Name	Model Number	Function Description
Network Device	TC1013	2 channel CAN FD to USB interface

Shipping list · TC1013 device

Pin definition

5 → CANFD_Shield
4 → CANFD2_Low
8 → CANFD2_High
3 → CANFD_GND
7 → CANFD1_High
2 → CANFD1_Low