TOSUN

TC1017

12-channel CAN FD to USB interface

Classic Application:

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

Feature Overview

TC1017 is a device featuring an 8 channel CAN FD bus to USB interface, adeptly handling tasks related to CAN FD/CAN network development, simulation,and testing.

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

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

Characteristics

- Microsecond-level hardware message timestamp, meeting advanced requirements
- Driverless design for Windows system, boasting exceptional system compatibility
- Channel count: 8 channel isolated CAN FD interface (USB-powered for 4 channel transmission and reception; 8-channel functionality is limited to reception only with USB power; under external power, complete functionality for 8 channels is supported). Standard DB-9 connectors provided via adapter cables
- CAN channel isolation up to DC2500V
- Automotive-grade design, supporting DBC, A2L, ASC, and ARXML file formats
- Support for recording data in BLF and ASC formats, enabling offline/online playback
- Capable of UDS diagnostics and CCP/XCP calibration
- Supports UDS-based Flash Bootloader
- Supplementary secondary development API interfaces for Windows and Linux systems
- Capable of loading all paid licenses for TSMaster
- Potential future support for offline gateway usage (currently not supported, a feature for future expansion)
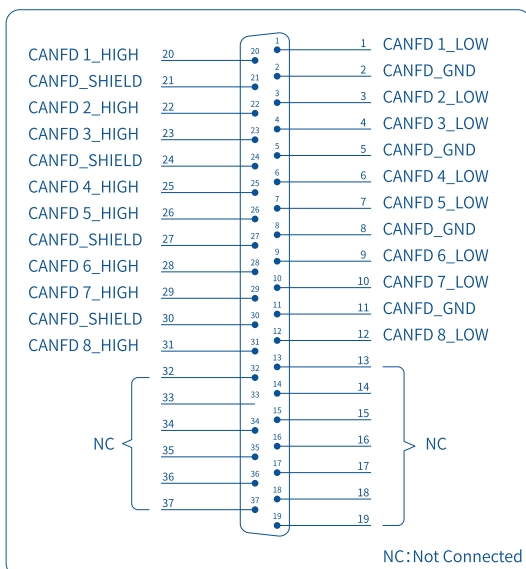
Specification

Channel	8 x CAN FD
PC interface	USB 2.0
CAN interface	DB37, with a cable that converts DB37 to 8 DB9 interfaces
Driver	Driverless design for Windows and Linux systems, ensuring system compatibility
Buffer	Each channel supports a transmit buffer of up to 700 CAN FD@64 bytes
CAN	Supports CAN 2.0A, B protocols, compliant with ISO11898-1 standard, baud rate from 5Kbps to 1Mbps
CAN FD	Supports both ISO and non-ISO standard CAN FD, baud rates from 100Kbps to 8Mbps
Timestamp Precision	1μs hardware message timestamp
Termination Resistor	Built-in 120 ohm termination resistor configurable via software
Messages sent per second	Maximum of 17,000 frames/second
Messages received per secondIso	Maximum of 17,000 frames/second
Isolation	CAN channel DC2500V isolation, electrostatic discharge level of ±8KV for contact discharge
Power Supply	DC 7-18V
Operating Temperature	40ºC to 85ºC
Enclosure Material	Aluminum
Size	106mm*84mm*32mm

Ordering Information

Product Name	Model Number	Function Description
Network Device	TC1017	8 channel CAN FD to USB interface

Pin definition

CANFD 1_HIGH	20	1	CANFD 1_LOW
CANFD_SHIELD	21	2	CANFD_GND
CANFD 2_HIGH	22	3	CANFD 2_LOW
CANFD 3_HIGH	23	4	CANFD 3_LOW
CANFD_SHIELD	24	5	CANFD_GND
CANFD 4_HIGH	25	6	CANFD 4_LOW
CANFD 5_HIGH	26	7	CANFD 5_LOW
CANFD_SHIELD	27	8	CANFD_GND
CANFD 6_HIGH	28	9	CANFD 6_LOW
CANFD 7_HIGH	29	10	CANFD 7_LOW
CANFD_SHIELD	30	11	CANFD_GND
CANFD 8_HIGH	31	12	CANFD 8_LOW
	32	13	
	33	14	
	34	15	
NC	35	16	NC
	36	17	
	37	18	
		19	

NC: Not Connected

Shipping list

- TC1017 device
- USB cable
- DB37 to 8 DB9 adapter cable
- DC 12V power supply

DB37 adapter cable