TOSUN

TC1113/4B

Multi-Channel CAN FD Bus Interface

Classic Application:

- OBD Data Viewing and Analysis
- Wireless Transmission of OBD Data
- Viewing and Clearing DTC
  (Diagnostic Trouble Code) Faults

Feature Overview

TC1113/4B is a multi-channel CAN FD bus interface device introduced by TOSUN. It supports a maximum CAN FD bus rate of 8 Mbps. The product utilizes a high-speed USB 2.0 interface to connect to PCs and an ODB port for vehicle connection. It also supports WiFi functionality. The driver-free design for Windows systems ensures excellent system compatibility.

When paired with the powerful TSMaster software,this device supports loading DBC and ARXML database files. It enables convenient monitoring, analysis, and simulation of CAN FD bus data. Additionally, it supports functions such as UDS diagnostics, ECU flashing, and CCP/XCP calibration.

It can be used for secondary development API on Windows and Linux, supporting various development environments such as C++, C#, LabView, Python, etc. This makes it convenient to integrate into various testing systems, providing efficiency and ease of use.

Characteristics

Wi-Fi Functionality

- Supports IEEE 802.11 b/g/n protocol
- Operating channel center frequency range: 2412 ~ 2484 MHz
- Supports 20MHz and 40MHz bandwidths in the 2.4GHz band
- Supports 1T1R mode, with data rates up to 150
- MbpsWireless Multimedia (WMM)
- Frame aggregation (TX/RX A-MPDU, TX/RX A-MSDU)
- Immediate Block ACK
- Fragmentation and defragmentation
- Transmission opportunity (TXOP)
- Beacon automatic monitoring (hardware TSF)
- 4x virtual Wi-Fi interfaces
- Supports Infrastructure BSS (Basic Service Set), Station mode, SoftAP mode, Station + SoftAP mode, and Promiscuous mode simultaneously

Specification

Channels	2 x CAN FD / 4 x CAN FD
PC Interface	High-speed USB 2.0
CAN Interface	OBD
Driver	Driverless design for Windows and Linux systems, ensuring system compatibility
Buffer	Each channel's transmission buffer supports up to 1000 frames of CAN/CAN FD
CAN	Supports CAN 2.0A/B protocol, compliant with ISO11898-1 specifications, baud rate 5Kbps—1Mbps
CAN FD	Supports ISO and non-ISO standard CAN FD, baud rate 125Kbps—8Mbps
Timestamp Precision	1μs hardware message timestamp
Terminal Resistor	Built-in 120-ohm terminal resistor configurable via software
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
Power Supply	USB-powered, OBD-powered
Enclosure Material	Plastic
Dimensions	80mm * 40mm * 20mm
Operating Temperature	-40℃ to 80℃
Operating Environment	10% to 90% (non-condensing)
Operating Humidity	Keep away from corrosive gases

*Note: Single channel at 1Mbps, 0-byte data field scenario

Ordering Information

Product Name	Model Number	Function Description
Network Device	TC1113B	2 channels of CAN FD to WiFi
Network Device	TC1114B	4 channels of CAN FD to WiFi

Software-Hardware Interaction Diagram

Upload Diagnostic Results to Software

Tablet Diagnostic Software System → Connect to Diagnostic Box → Hardware Diagnostic Box

Send Control Commands to the Diagnostic Box