# TOSUN

# TC1113/4B

## 2/4channel CAN FD to USB/WIFI

## Classic Application:

- OBD Data Viewing and Analysis
- Wireless Transmission of OBD Data
- DTC Fault Viewing and Clearing
- Vehicle/ECU Flashing

## Feature Overview

TC1113B and TC1114B are 2/4 channel CAN FD bus to USB and WIFI tools introduced by TOSUN The CAN FD bus supports a maximum rate of 8 Mbps.The products utilize a high-speed USB 2.0 interface to connect to a PC, and they are linked to the vehicle through an OBD port.They also support WIFI functionality. The plug-and-play design for Windows systems ensures device compatibility.

When used in conjunction with the powerful TSMaster software, these tools support loading DBC and ARXML database files.This allows for convenient monitoring, analysis, and simulation of CAN FD bus data. Additionally, they support UDS diagnostics, ECU flashing, and othe functionalities.

WIFI mode is recommended for message monitoring and diagnostics, but not recommended for simulation. The secondary development API, available for both Windows and Linux, supports various programming environments, including C++, C#, LabView, Python, and more. This facilitates seamless integration into diverse testing systems, offering efficiency and user-friendliness.

# Characteristics

- μs (microsecond) level hardware message time-stamp, meeting advanced requirements
- High-speed USB 2.0 interface, plug-and-play design for Windows and Linux systems, ensuring system compatibility
- CAN channel DC 2500V isolation
- Automotive-grade design, supports DBC and ARXML database files through TSMaster software
- Adjustable CAN channel baud rate from 125Kbps to 1Mbps
- Adjustable CAN FD channel baud rate from 125Kbps to 8Mbps
- Supports BLF, ASC format data recording, and offline/online playback
- Supports UDS-based Flash Bootloader
- Supports secondary development interfaces for Windows and Linux systems
- Built-in 120-ohm terminal resistance configurable via software

## WIFI functionality

- Supports IEEE 802.11 b/g/n protocol
- Operating channel center frequency range: 2412 ~ 2484 MHz
- Supports 20MHz and 40MHz bandwidth in the 2.4GHz band
- Supports 1 T 1 R mode, with data rates up to 150 Mbps
- Wireless Multimedia (WMM)
- Frame aggregation (TX/RX A-MPDU, TX/RX A-MSDU)
- Immediate block acknowledgment (Immediate Block ACK)
- Fragmentation and defragmentation Transmission opportunity (TXOP)
- Beacon auto-detection (Hardware TSF)
- 4× virtual Wi-Fi interfaces
- Simultaneously supports Infrastructure BSS (Basic Service Set),Station mode, SoftAP mode, Station + SoftAP mode,and Promiscuous mode

## Specification General Parameters

| Channel | 2 x CAN FD / 4 x CAN FD |
|---|---|
| PC End | High-speed USB 2.0 |
| CAN End | OBD |
| Driver | Driver-free design for Windows and Linux systems, ensuring system compatibility |
| CAN | Supports CAN 2.0A, B protocols, compliant with ISO11898-1 standard, with baud rate 125Kbps-1Mbps |
| CAN FD | Supports CAN FD that complies with both ISO and non-ISO standards, with baud rates from 125Kbps to 8Mbps |
| Timestamp | 1 μs, hardware message timestamp for advanced requirements |
| Terminal Resistance | Built-in 120-ohm termination resistor, software configurable |
| Isolation | DC 2500V isolation for CAN channels |
| Casing Material | Plastic |

| Dimensions | 80 x 40 x 20mm |
|---|---|
| Operating Temperature | -40°C to 70°C |
| Operating Humidity | 10% to 90% (non-condensing) |
| Operating Environment | Keep away from corrosive gases |
| Messages Sent per Second* | Maximum 20,000 messages per second |
| Messages Received per Second* | Maximum 20,000 messages per second |
| Power Supply | USB powered |
| Buffer | Each channel supports a transmit buffer of up to 1000 CAN frames |

## USB Mode Parameters

| Messages Sent per Second* | Maximum of 20,000 frames/second |
|---|---|
| Messages Received per Second* | Maximum of 20,000 frames/second |
| Power Supply | USB powered |
| Buffer | Each channel supports a transmit buffer of up to 1000 CAN frames |

## WIFI Mode Parameters

| Messages Sent per Second* | Maximum of 4000 frames/second |
|---|---|
| Messages Received per Second* | Maximum of 5000 frames/second |
| Power Supply | OBD powered |
| Buffer | Each channel supports a transmit buffer of up to 300 CAN frames |

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

# Ordering Information

| Product Name | Model Number | Function Description |
|---|---|---|
| Network Device | TC1113B | 2 channel CAN FD to USB and WIFI |
| Network Device | TC1114B | 4 channel CAN FD to USB and WIFI |

# Shipping list

- TC1113B device
- TC1114B device
- USB cable

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