# TOSUN

# Tlog1004

## 4 channel CAN FD
## 2 channel LIN bus datalogger typical application

### Classic Application:

- Road experiment data collection
- Suitable for Automotive Testing in High Temperature, High Pressure, and High Altitude Conditions
- Bench test, and calibration

## Feature Overview

TLog1004 is a multi-channel CAN FD bus and LIN bus interface logger device. It supports a maximum CAN FD bus rate of 8 Mbps and LIN bus rates from 0 to 200 kbps. The device is equipped with 3 digital inputs and 2 digital outputs, facilitating various signal measurements and system integration. It connects to a PC via a high-speed USB 2.0 interface and has built-in 64GB storage capacity. The driver-free design ensures system compatibility with Windows.

Optional bus analyzer functionality is available. When activated, the device can function as a 4 CAN FD and 2 LIN bus analyzer in conjunction with TSMaster software. It supports loading DBC and ARXML data base files for convenient monitoring, analysis, and simulation of CAN bus data, as well as ECU flashing. Activation of features such as UDS diagnostics, CCP/XCP calibration, and more is also possible. The device supports secondary development APIs for Windows and Linux, compatible with various development environments such as C++, C#, LabView,Python, etc., making it easy to integrate into various testing systems. It is efficient and user-friendly.

## Characteristics

- Supports both ISO and non-ISO standard CAN FD Baud rates from 100 Kbps to 8 Mbps
- Internal real-time clock
- Built-in GPS, or external GPS synchronization
- 64GB eMMC storage built-in
- LED lights display communication status
- Configurable triggering methods
- Data exportable to PC via USB
- Direct export in BLF format
- Exported BLF files can be replayed directly in TSMaster software

## Specification

| | |
|---|---|
| PC End | High-speed USB 2.0 interface |
| CAN End | DB9 interface (partially other interfaces) |
| Driver | Windows system plug-and-play design, excellent system compatibility, also supports Linux |
| Secondary Development* | Supports Python, LabView, C#, C++, etc., with provided examples for some |
| Buffer | Each channel supports a transmit buffer of up to 1000 CAN frames |
| CAN | Supports CAN 2.0A, B protocols, complies with ISO 11898-1 standard, baud rates from 5 Kbps to 1 Mbps |
| CAN FD | Supports both ISO and non-ISO standard CAN FD, baud rates from 100 Kbps to 8 Mbps |
| Digital Input | Sampling frequency of 1 KHz |
| Digital Output | Output frequency of 1 KHz |
| Timestamp Precision | 1μs hardware timestamp accuracy |
| Isolation | Channel DC 2500V isolation, electrostatic discharge contact discharge ±8KV |
| Terminal Resistance | CAN built-in 120-ohm terminal resistor, software configurable |
| Power Supply | USB-powered for use as an analyzer, DC 9-36V for use as a recorder |
| Operating Temperature | -40℃ to 85℃ |

* Single : Upon choosing to activate the bus analyzer function, support will be enabled

## Ordering Information

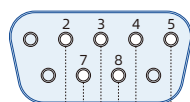| Product Name | Model Number | Function Description |
|---|---|---|
| Network devices | Tlog1004 | 4 channel CAN FD, 2 channel LIN pure bus recorder. |
| TOSUN development and Testing Software | TSMaster/Bus Analysis | Activate bus simulation and analysis function. |
| TOSUN development and Testing Software | TSMaster/UDS | Activate UDS diagnostic function, support ODX file import, etc. |
| TOSUN development and Testing Software | TSMaster/CCP/XCP | Activate CCP/XCP calibration function |

## Shipping list

- Tlog1004
- USB cable
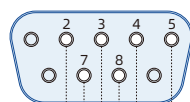- GPS antenna
- Tlog1004 dedicated power cable

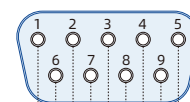## Pin definition · Left: CAN FD 2 / 4 · Middle: CAN FD 1 / 3 · Right: CAN FD 1 / 2

Left: CAN FD 2 / 4
- 5 → CANFD_Shield
- 4 → CANFD4_Low
- 8 → CANFD4_High
- 3 → CANFD_GND
- 7 → CANFD2_High
- 2 → CANFD2_Low

Middle: CAN FD 1 / 3
- 5 → CANFD_Shield
- 4 → CANFD3_Low
- 8 → CANFD3_High
- 3 → CANFD_GND
- 7 → CANFD1_High
- 2 → CANFD1_Low

Right: CAN FD 1 / 2
- 5 → Digital_Out2
- 9 → V$_{BAT}$
- 4 → Digital_Out1
- 8 → LIN2
- 3 → GND
- 7 → Digital_In3
- 2 → Digital_In2
- 6 → LIN1
- 1 → Digital_In1