

# TC1011 – CAN FD ↔ USB Adapter



## Product Overview

The TC1011 is a high-performance single-channel CAN FD to USB interface device from TOSUN, designed for industrial, automotive, and testing environments. It offers reliable, galvanically isolated CAN connectivity to a PC via USB, with no additional drivers for Windows and Linux.

## Key Features

- Supports CAN 2.0A/B and (ISO/Non-ISO) CAN FD up to 8 Mbps
- USB 2.0 high-speed interface—driver-free on Windows; Linux supported
- Galvanic isolation up to 2500 V; contact ESD protection  $\pm 8$  kV
- 1  $\mu$ s hardware timestamping and hardware buffering (20k messages/s RX & TX)
- Supports automotive-grade formats: DBC, A2L, BLF, ASC, ARXML
- Protocol support: UDS diagnostics, CCP/XCP calibration, Flash Bootloader, information security testing
- Configurable 120  $\Omega$  termination resistor via software
- Compatible with TOSUN TSMaster software licenses, and APIs in Python, C++, C#, LabVIEW

## Technical Specifications

| Feature              | Specification                                                |
|----------------------|--------------------------------------------------------------|
| USB Interface        | High-speed USB 2.0 (driver-free for Win/Linux)               |
| CAN Interface        | CAN 2.0A/B and CAN FD (ISO/non-ISO)                          |
| CAN Speed Range      | 5 kbps – 1 Mbps (CAN), up to 8 Mbps (CAN FD)                 |
| Timestamp Resolution | 1 $\mu$ s                                                    |
| Isolation            | 2500 V DC (CAN side)                                         |
| Buffering Throughput | Up to 20,000 messages/s RX & TX                              |
| Connector            | USB Type-A; DB9 male (Pin 2=CAN_L, 3=GND, 5=Shield, 7=CAN_H) |

|                       |                                                 |
|-----------------------|-------------------------------------------------|
| Termination Resistor  | Internal 120 $\Omega$ (software switchable)     |
| Power Supply          | USB-powered                                     |
| Operating Temp. Range | −40 °C to +85 °C                                |
| Housing               | ABS plastic                                     |
| Certifications        | Automotive-grade, CE, RoHS, ESD near $\pm 8$ kV |
| Protocols & Formats   | DBC, A2L, BLF, ASC, ARXML; UDS, CCP/XCP         |