

# TL1001



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## Automotive-Grade Portable LIN Bus Interface



### Classic Application:

- ECU Data Acquisition
- Various test benches
- ECU Programming

## Feature Overview

TL1001 is a portable and easily installable device introduced by TOSUN, featuring a 1 channel LIN bus to USB interface. The LIN bus device supports a speed range of 0 to 20Kbps. The product uses a high-speed USB 2.0 interface to connect to a PC, and its driver-free design for Windows ensures system compatibility.

When used with the powerful TSMaster software, it supports loading LDF database files. This facilitates easy monitoring, analysis, and simulation of LIN bus data. Additionally, it supports functions such as UDS diagnostics, ECU programming, and more.

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

- Unique Free-Send Mode reduces the threshold for LIN bus development and debugging
- Microsecond-level hardware message timestamp meets advanced requirements
- Portable design with uniquely designed mounting holes, facilitating integration into various devices or instrument panels
- High-speed USB 2.0 interface, driver-free design for Windows and Linux systems, ensuring system compatibility
- Automotive-grade design supporting LIN's LDF files
- Support for UDS diagnostics based on the LIN bus
- Support for UDS-based Flash Bootloader
- Support development interface support for Windows and Linux systems
- Software-configurable LIN bus master and slave nodes
- Support for blf and asc format data logging and offline/online playback
- Built-in script editing supporting virtual simulation and semi physical simulation

## Specification

Channels	1 x LIN
PC End	High-speed USB 2.0 interface
LIN End	DB9 interface
Driver	Driver-free design for Windows and Linux systems, ensuring system compatibility
LIN	Supports LIN 1.3 and 2.x, baud rate from 0 to 20Kbps
Schedule Table	Supports LDF files and runs schedule tables, or can configure schedule tables manually
Timestamp	1 μs hardware message timestamp
Isolation	Electrostatic contact discharge level at ±8KV
Power Supply	Powered via USB, external power supply required for LIN communication
Casing Material	Plastic
Operating Temperature	-40°C to 80°C
Operating Humidity	10% to 90% (non-condensing)
Operating Environment	Keep away from corrosive gases

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

## Ordering Information

Product Name	Model Number	Function Description
Network Device	TL1001	1 channel LIN to USB interface

## Shipping list

- TL1001 device
- DB9 female connector to 3 banana plugs LIN bus cable \*1

## Pin Definitions

