

# **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
- Secondary 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 semiphysical simulation



## **Specification**

Channels	1 x LIN	
Charmele	I X LIN	
PC End	High-speed USB 2.0 interface	
LIN End	DB9 interface	
Driver	Driverless design for Windows and Linux systems, ensuring system compatibility	
LIN	Supports LIN1.3 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	lμs hardware message timestamp	
Isolation	Electrostatic contact discharge level at ±8KV	
Power Supply	Powered via USB, external power supply required for LIN communication	
Enclosure Material	Plastic enclosure material	
Operating Temperature	ting Temperature -40°C to 80°C	
Operating Humidity	10% to 90% (non-condensing)	
Operating Environment	Keep away from corrosive gases	

<sup>\*</sup>Single channel 1Mbps, 0-byte data field situation

## **Ordering Information**

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

# **Shipping list**

# **Pin Definitions**

· TL1001 device



