

# Tlog1039

## Multi-bus simulation testing and logger tool



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### Classic Application:

- CAN/CAN FD bus data monitoring, collection, and analysis
- LIN bus data monitoring, collection, and analysis
- FlexRay data monitoring, collection, and analysis

## Feature Overview

The Tlog1039 is a multi-bus simulation testing and logger tool launched by TOSUN, which supports CAN/CAN FD, LIN, and FlexRay buses. It features 12 channels for CAN/CAN FD, with adjustable baud rates from 125 Kbps to 1 Mbps for CAN protocol and up to 5 Mbps for CAN FD protocol. There are 10 LIN channels, with baud rates supporting from 0 to 20 Kbps, and the master/slave mode can be software-configured. Additionally, the device supports 2 FlexRay channels with dual-line redundancy for data transmission, offering low latency and flexible bandwidth allocation mechanisms. It supports various data types and rich topological structures. It also includes multiple digital and analog I/O interfaces for convenient signal measurement and system integration.

The Tlog1039 connects to a PC via Ethernet, ensuring high data transfer rates. This prevents communication bottlenecks with the PC when processing large amounts of bus data. It also supports wireless access through 4G, Bluetooth, Wi-Fi, and other methods.

With the powerful TSMaster software, it supports loading DBC, LDF, XML, ARXML, etc. database files, making it very convenient to monitor, analyze, and simulate various types of bus data, and it also supports functions such as UDS diagnostics, ECU flashing, CCP/XCP calibration, etc.



## Characteristics

- $\mu$ s (microsecond) level hardware message timestamps to meet advanced requirements
- CAN channel baud rate adjustable from 125 Kbps 1 Mbps, and CAN FD supports a maximum
- LIN bus master/slave mode configurable via software
- Built in 120 ohm terminal resistor for CAN, with the resistance value configurable through software
- CAN supports Self ACK self acknowledgment configuration
- Built in 100 ohm terminal resistor for FlexRay, with the resistance value configurable through software
- Auxiliary communication controller, eliminating the need to add extra nodes during cold starts
- Supports blf and asc format data recording and offline/online playback
- Supports hardware time synchronization across multiple device
- Supports GPS function
- Built in 256G eMMC storage
- Provides API based sample projects for easy secondary development

## Specification

Channel	12 x CAN FD / 10 x LIN / 2 x FlexRay / 4 x DIDO / 3 x AIAO / 4 x Ethernet
PC Interface	RJ45 Ethernet
CAN Interface	DB37 Male
LIN Interface	DB9 Male
FlexRay Interface	DB9 Male
I/O Interface	DB9 Female
Driver	Driverless design for Windows system
Buffer	Each channel supports a transmit buffer of up to 1000 CAN frames
CAN	Supports CAN 2.0 A and B protocols, compliant with the ISO 11898 1 standard, with baud rates from 125 Kbps to 1 Mbps
CAN FD	Supports CAN FD that complies with both ISO and non ISO standards, with baud rates from 125 Kbps to 5 Mbps
LIN	Supports LIN 1.3/2.0/2.1/J2602, baud rate 0 to 20 Kbps
FlexRay	FlexRay channel (A and B)
Cold Start	Supported
Timestamp Accuracy	1 $\mu$ s hardware message timestamp

CAN Terminal Resistor	None build in
FlexRay Terminal Resistor	None build in
Isolation	CAN/FlexRay channel DC2500V isolation
DIDO	DI: 0 40V Vref: 0 3.3V, Threshold range: $V_{AH}=(330+499*V_{ref})/1098$ ; Val=0.455*Vref DO: Low level 0V, high level 5V/12V (use with load unsupported)
AIAO	AI: 0 ~ 39V AO: 0 ~ 30V
External Power Supply	DC power supply (9 to 28 V)
Power Consumption	10 W
Casing Material	Metal
Dimension	Approx. 210 x 110 x 47 mm
Weight	Approx. 2884.4 g
Operating Temperature	-40°C ~ 80°C
Operating Humidity	10% ~ 90% (non-condensing)
Operating Environment	Keep away from corrosive gases

## Ordering Information

Product Name	Model Number	Function Description
Network devices	Tlog1039	Multi-bus simulation testing and logger tool

## Shipping list

- Tlog1039 device
- Time synchronization box harness
- Tlog1039 power cable
- Cat 6 Gigabit Ethernet cable
- DB37 female to 12 DB9 male adapter
- DB9 female to 2 male adapter
- DB9 to 8 banana LIN cable x 2
- Analog/digital signal DB9 cable
- Antenna x 3
- TCB001 button box x 2

## Pin definition

- Left: CAN FD 1/12
- Top Center: LIN 1/5
- Right: I/O
- Bottom Center: 6/10
- Bottom Right: FlexRay 1/2

