

# TE1051

**100Base-Tx 1000Base-T  
100/1000Base-T1 interface tool**



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## Classic Application:

- Automotive ethernet Remaining Bus Simulation
- Automotive ethernet Data Monitoring and Analysis
- Automotive ethernet Communication Testing

## Feature Overview

TE1051 is a tool with a 1 channel Ethernet-to-USB interface. Users can transfer data from a standard Ethernet mode (100Base-Tx, 1000Base-T), or Automotive ethernet mode (100/1000Base-T1), via the USB interface to a PC. Through the TSMaster software, Ethernet data emulation, analysis, and testing can be performed. It also enables functionalities like DoIP, SOMEIP, and more.

TE1051 is compact, robust in design, requires no external power supply, and is user-friendly.

## Characteristics

- Automotive ethernet interfaces: TE MATenet and Rosenberger H-MTD
- 1 channel support for 100Base-Tx, 1000Base-T, 100/1000Base-T1, switchable via software at any time
- LED indicators displaying vehicle/standard Ethernet operational status
- LED indicators showing system status, including rate, master/slave, and USB status
- Automotive-grade design, ARXML file support for parsing automotive ethernet messages in TSMaster
- Supports DoIP and SOMEIP
- Supplementary Windows API interface for secondary development, supporting Ethernet packet RAW format reception, transmission with timestamps, transmission completion events, and CRC modification
- Provides TCP/IP example projects based on API interfaces and lwIP protocol stack, facilitating secondary development
- Loopback maximum rate approximately 7 Mbyte (full-duplex)

## Specification

Channel	Standard Ethernet 100Base-Tx, 1000Base-T, or vehicle Ethernet 100/1000Base-T1
PC End	USB 2.0
Ethernet End	RJ45 with TE MATEnet or Rosenberger H-MTD
Driver	Driver-free design for Windows and Linux systems, ensuring system compatibility
Timestamp	1 $\mu$ s hardware message timestamp
Isolation	Network transformer/capacitor isolation
Power Supply	USB-powered
Operating Temperature	-40°C to 80°C
Casing Material	Aluminum
Dimensions	110 x 70 x 36mm

## Ordering Information

Product name	Model	Feature description
Network Device	TE1051	1 channel automotive ethernet to USB interface

## Shipping list

- TE1051\_M device
- USB Cable \*1
- TE MATEnet Cable \*1  
(non-standard, must be ordered separately)
- TE1051\_R device
- USB Cable \*1
- Rosenberger H-MTD Cable \*1  
(non-standard, must be ordered separately)

