

TC1043

2 Channel CAN/CAN FD/CAN XL Interface



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Classic Application:

- CAN / CAN FD / CAN XL network simulation and testing
- ECU testing, diagnostics, and validation
- CAN bus data logging and analysis
- Support CAN XL FAST mode

Feature Overview

The TC1043 is a 2 channel CAN bus simulation and testing tool for automotive electronic system development and validation. It features two CAN channels and supports CAN, CAN FD, and CAN XL protocols at data rates of up to 1 Mbps, 8 Mbps, and 20 Mbps, respectively, including CAN XL FAST mode.

Configurable sampling points and multiple operating modes, including loopback, listen-only, and restricted operation modes, are supported. With TSMaster software, the TC1043 enables efficient message transmission, reception, logging, and analysis.

Included Resources:

- TSMaster host software
- Cross-platform secondary development library (with a dedicated programming manual)

Characteristics

- Microsecond-level hardware timestamps for simulation and diagnostics
- USB 3.0 and RJ45 Ethernet interfaces support high-speed data transfer and flexible remote deployment
- Driver-free operation on Windows and Linux for plug-and-play use
- USB or DC 9–26V power supply options (12V recommended) support flexible deployment in laboratory and vehicle environments
- ESD protection up to ± 4 kV contact discharge and ± 8 kV air discharge, with ± 2 kV EFT protection, compliant with IEC 61000-4-2 and IEC 61000-4-4
- Software-configurable CAN termination via latching relay for flexible control of termination resistance

Specification

Channel	2 × CAN/CAN FD/CAN XL
PC Interface	Type-C USB 3.0 or RJ45 Ethernet
Driver	Cross-platform, driver-free design
Connector	Standard D-Sub, 9-pin
License	Supports all TSMaster paid licenses
Relay Type	Latching Relay
Power Supply	USB-powered or external DC 9~26 V (12 V recommended)
Power Consumption	4.2 W
ESD Protection	±4 kV contact discharge, ±8 kV air charge
Enclosure Material	Metal
Dimensions	Approx. 113 × 98 × 38 mm
Weight	Approx. 265 g
Operating Temperature	-40°C ~ 80°C
Operating Humidity	10% ~ 90% RH (no condensing)

CAN / CAN FD / CAN XL

Connection Standard	High-speed CAN (ISO 11898-2:2024 compliant)
Supported Protocols	CAN / CAN FD / CAN XL
CAN Baud Rate	125 kbps ~ 1 Mbps
CAN Frame Data Length	0 ~ 8 bytes
CAN FD Baud Rate	125 kbps ~ 8 Mbps
CAN FD Frame Data Length	0 ~ 64 bytes
CAN XL Bit Rate	Up to 20 Mbps (FAST mode)
CAN XL Data Length	1 ~ 2048 bytes
Termination Resistor	Built-in 120 Ω, software configurable
Relay Type	Latching relay

Ordering information

Product Name	Model Number	Function Description
Network Device	TC1043	2 channel CAN/CAN FD/CAN XL

Shipping list

- TC1043 device
- Type-C USB cable
- Cat6 Gigabit Ethernet cable
- 12 V / 2 A power adapter (US/ EU/ CN)



Type-C USB cable



12 V 2 A power adapter
(US/ EU/ CN)



Cat 6 Ethernet cable

Pin definition

