



High-speed CAN FD transceiver

Features

- Fully compliant to ISO 11898-2:2024 and SAE J2284-4/-5
- Loop delay symmetry for *controller area network (CAN)* FD data frames up to 5 Mbit/s
- Very low *electromagnetic emission (EME)* allows the use without additional common mode choke
- V_{IO} input for voltage adaption to the microcontroller interface (3.3 V or 5 V)
- Excellent *electrostatic discharge (ESD)* robustness
- TxD timeout function
- Very low CAN bus leakage current in power-down state
- Overtemperature protection
- Protected against automotive transients according to ISO 7637 and SAE J2962-2
- Power-save mode
- Green Product (RoHS compliant)



Potential applications

- Engine control units
- Electric power steering
- Transmission control units (TCUs)
- Chassis control modules

Product validation

Qualified for automotive applications. Product validation according to AEC-Q100.

Description

The TLE9350BVLE is a high speed *CAN* transceiver, used in HS CAN systems for automotive applications as well as for industrial applications. It is designed to fulfill the requirements of ISO 11898-2:2024 physical layer specification as well as SAE J1939 and SAE J2284.

The TLE9350BVLE is available in a *Restriction of Hazardous Substances in Electrical and Electronic Equipment (RoHS)* compliant, halogen free PG-TSON-8 package.

As an interface between the physical bus layer and the HS CAN protocol controller, the TLE9350BVLE is designed to protect the microcontroller against interferences generated inside the network. A very high *ESD* robustness and the optimized RF immunity allows the use in automotive applications without additional protection devices, such as suppressor diodes or common mode chokes.

Based on the high symmetry of the CANH and CANL output signals, the TLE9350BVLE provides a very low level of *EME* within a wide frequency range. The TLE9350BVLE fulfills even stringent *electromagnetic compatibility (EMC)* test limits without an additional external circuit, such as a common mode choke.

The optimized transmitter symmetry combined with the optimized delay symmetry of the receiver enables the TLE9350BVLE to support CAN FD data frames. The device supports data transmission rates up to 5 Mbit/s, depending on the size of the network and the inherent parasitic effects.

Fail-safe features, such as overtemperature protection, output current limitation or the TxD timeout feature are designed to protect the TLE9350BVLE and the external circuitry from irreparable damage.

Type	Package	Marking
TLE9350BVLE	PG-TSON-8	9350BV

Trademarks

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