

Product Brief

TLE7259-3LE

High End LIN Transceiver

The TLE7259-3LE is a transceiver for the Local Interconnect Network (LIN) with integrated Wake-Up and protection features in small leadless PG-TSON-8 package. It is designed for in-vehicle networks using data transmission rates from 2.4kBaude to 20kBaude. The TLE7259-3LE functions as a bus driver between the protocol controller and the physical bus inside the LIN network. Compliant to all LIN standards and with a wide operational supply range the TLE7259-3LE can be used in all automotive applications.

Different operation modes and the INH output allow the TLE7259-3LE to control external components, like voltage regulators or MASTER node termination. In Sleep-mode the TLE7259-3LE draws typically less than 8 μ A of quiescent current while still being able to wake up off of LIN bus traffic and a local Wake-Up input. The very low leakage current on the Bus pin makes the TLE7259-3LE especially suitable for partially supplied networks and supports the low quiescent current requirements of the LIN network.

The TLE7259-3LE combines outstanding ESD robustness together with a very high Electromagnetic Immunity (EMI) and reaches a very low level of Electromagnetic Emission (EME) within a broad frequency range and independent from the battery voltage. This feature set makes the TLE7259-3LE Infineon's most robust LIN transceiver and therefore the perfect fit for applications in harsh automotive environment.

Applications

- Body controllers and gateway modules
- Switch panels
- Wiper or window lift modules
- Door and seat control modules
- Engine management units

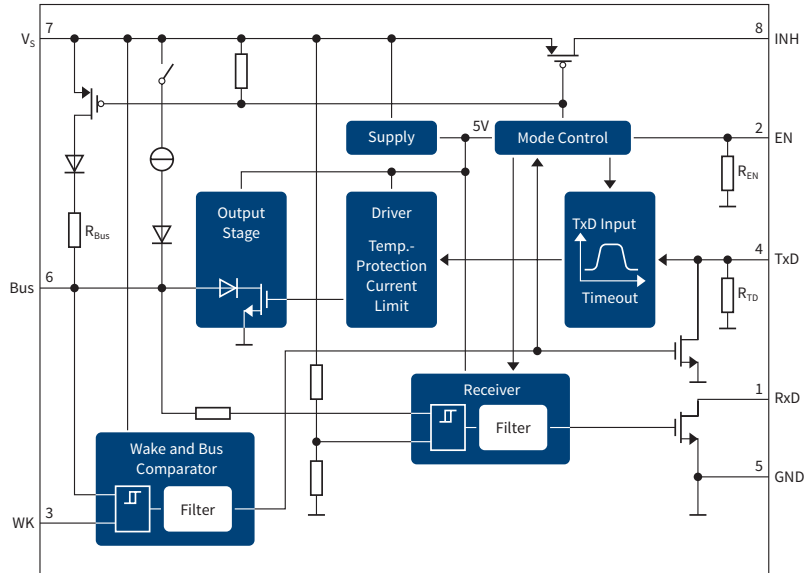
Key Features

- Data rates up to 20kBaude
- Compliant to ISO 17987-4, LIN specification 2.x and SAE J2602
- Very high ESD robustness of ± 15 kV according IEC61000-4-2
- Fast programming mode
- Worldwide OEM approval
- Low electromagnetic emission
- High immunity against EMI
- Very low current consumption in sleep mode (8 μ A)
- Digital I/O levels compatible for 3.3V and 5V microcontrollers
- INH output to control external voltage regulator
- Bus short to V_{BAT} protection and bus short to GND handling
- AEC Qualified

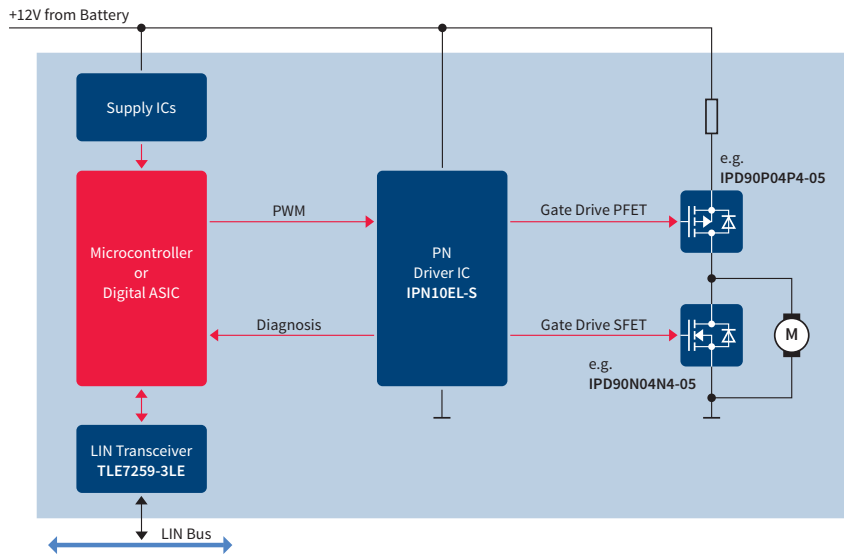
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Block Diagram TLE7259-3LE



Application Example: Wiper Control Module



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