

Product Brief

TLE7259-3GE

High-End LIN Transceiver

The TLE7259-3GE is a transceiver for the Local Interconnect Network (LIN) with integrated wake-up and protection features. It is designed for in-vehicle networks using data transmission rates from 2.4kBaude to 20kBaude. The TLE7259-3GE 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 TLE7259-3GE can be used in all automotive applications.

Different operation modes and the INH output allow the TLE7259-3GE to control external components, like voltage regulators or MASTER node termination. In sleep mode the TLE7259-3GE 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 TLE7259-3GE especially suitable for partially supplied networks and supports the low quiescent current requirements of the LIN network.

The TLE7259-3GE 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 TLE7259-3GE Infineon's most robust LIN Transceiver and therefore the perfect fit for applications in harsh automotive environment.

Key Features

- Data rates up to 20kBaude
- Compliant to LIN 1.3, 2.0, 2.1 and 2.2A
- 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

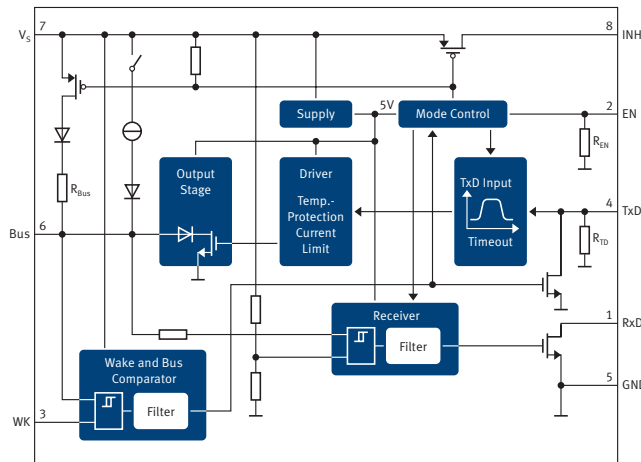
Applications

- Body Controllers and Gateway Modules
- Switch panels
- Wiper or window lift modules
- Door and Seat Control Modules
- Engine Management Units

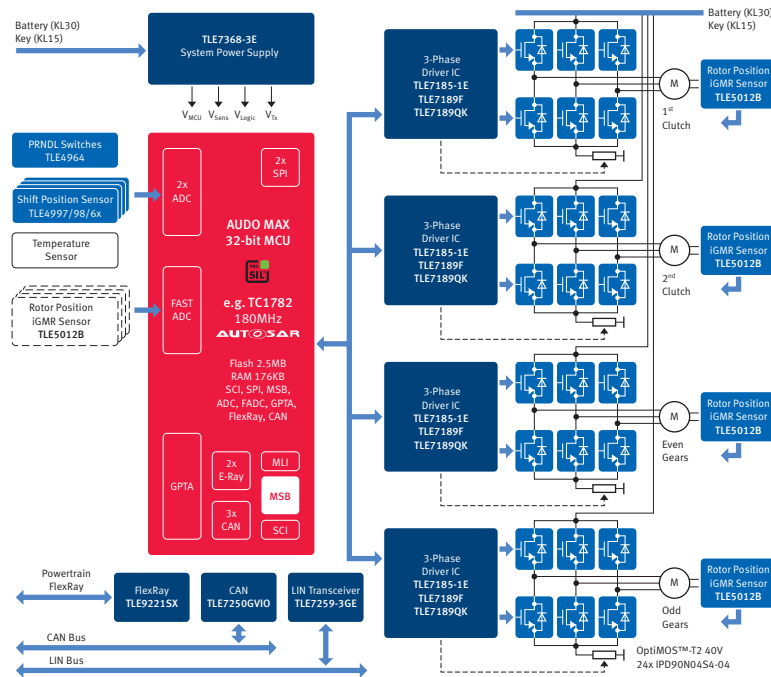
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Block Diagram TLE7259-3GE



Application Example: Electro-mechanical Dual Clutch Transmission Control Module



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