

Product Brief

TLE7257LE

Basic LIN Transceiver Starting up in Sleep Mode

The TLE7257LE 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 up to 20kbps. The TLE7257LE operates as a bus driver between the protocol controller and the physical bus of the LIN network. Compliant to all LIN standards and with a wide operational voltage supply range, the TLE7257LE can be used in all automotive applications.

The usage of different operation modes and the INH output allows the TLE7257LE to control external components like e.g. voltage regulators. In Sleep mode the TLE7257LE draws typically less than 10 μ A of quiescent current while still being able to wake-up when detecting LIN bus traffic. The very low leakage current on the Bus pin makes the TLE7257LE especially suitable for partially supplied networks.

The TLE7257LE provides excellent ESD robustness together with a very high Electro-magnetic Compatibility (EMC). It reaches a very low level of Electromagnetic Emission (EME) within a broad frequency range and independent from the battery voltage. The TLE7257LE is AEC qualified and tailored to withstand the harsh conditions of the automotive environment.

Applications

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

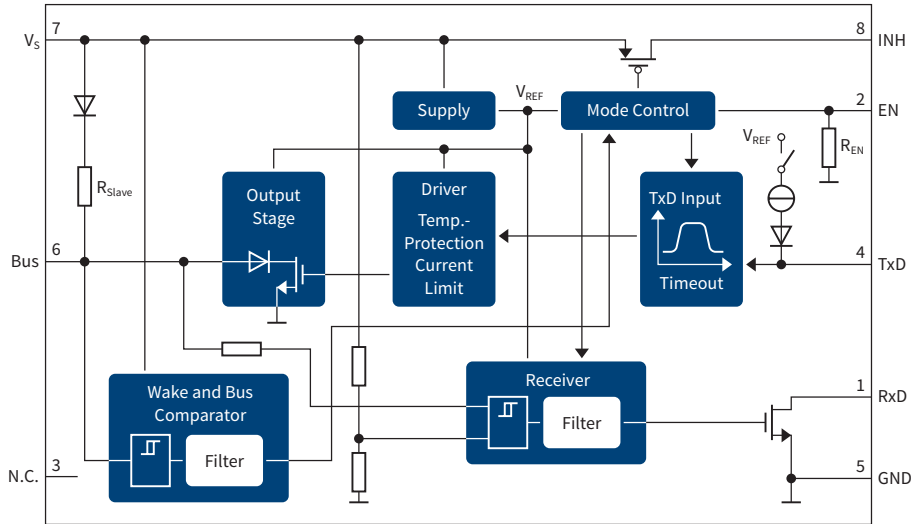
Key Features

- Data rates up to 20kbaud
- Compliant to ISO 17987-4, LIN specification 2.2A and SAE J2602
- Very high ESD robustness of ± 10 kV according IEC61000-4-2 and HBM
- Worldwide OEM approval
- Low electromagnetic emission
- High immunity against EMI
- Very low current consumption in sleep mode (10 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

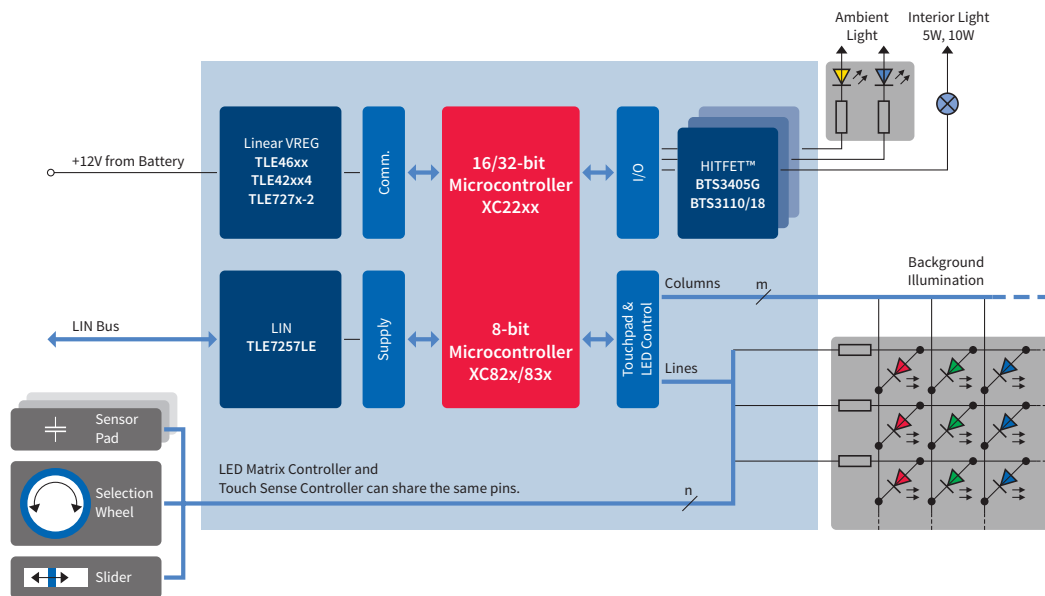
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Block Diagram TLE7257LE



Application Example: Interior Light Module with Capacitive Switch Panel



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