

Product Brief

TLE7258SJ

Basic LIN Transceiver starting up in Stand-By Mode

The TLE7258SJ 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 up to 20kbps. The TLE7258SJ 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 TLE7258SJ can be used in all automotive applications.

The usage of different operation modes and the INH output allows the TLE7258SJ to control external components like e.g. voltage regulators. In sleep mode the TLE7258SJ 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 TLE7258SJ especially suitable for partially supplied networks.

The TLE7258SJ provides excellent ESD robustness together with a very high electromagnetic compatibility (EMC). It reaches a very low level of electromagnetic emission (EME) within a broad frequency range and independent from the battery voltage. The TLE7258SJ is AEC qualified and tailored to withstand the harsh conditions of the automotive environment.

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

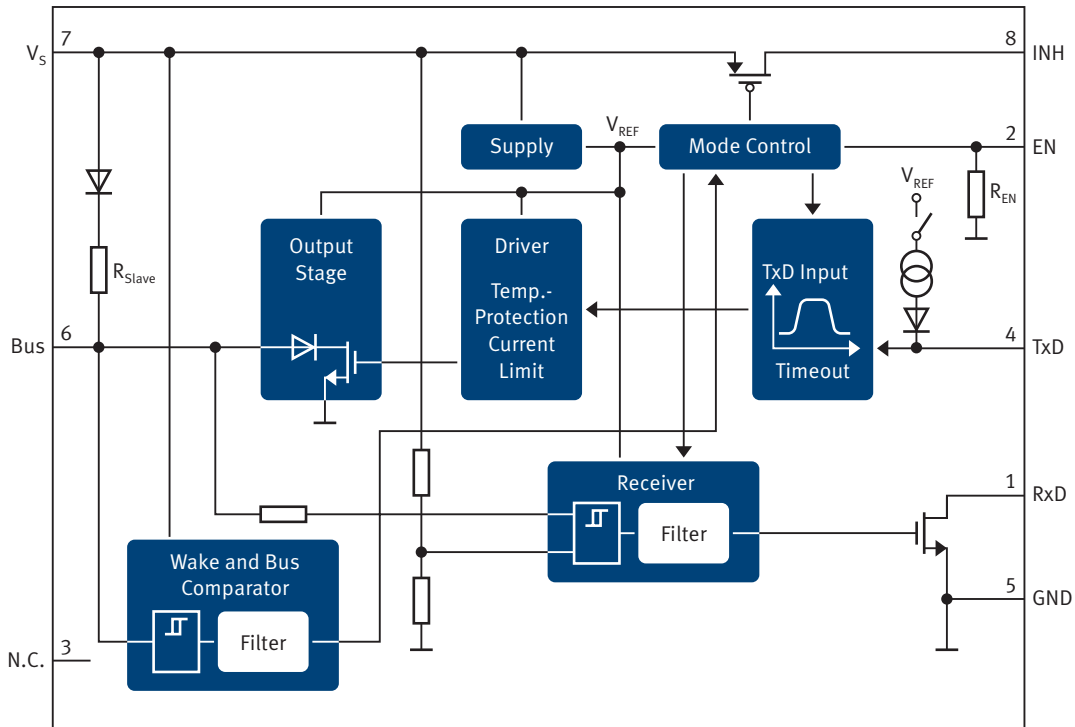
Applications

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

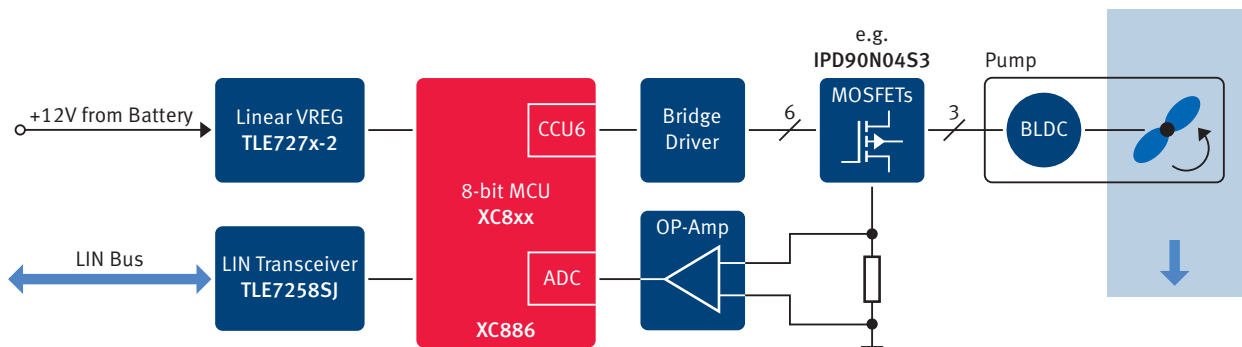
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Block Diagram TLE7258SJ



Application Example: Electric Water Pump



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