



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 2.4kBaud to 20kBaud. 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 20kBaud
- 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

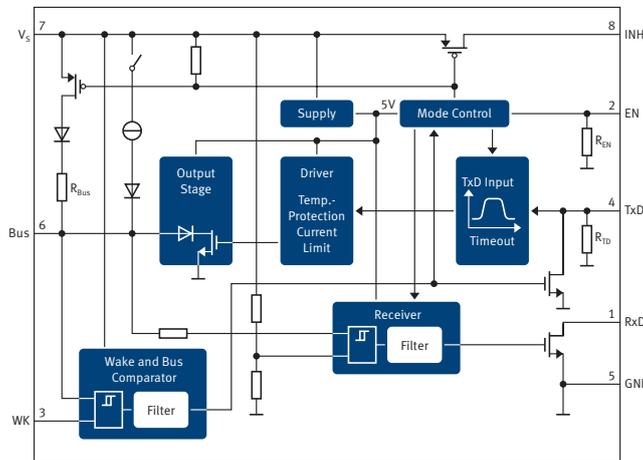
Applications

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

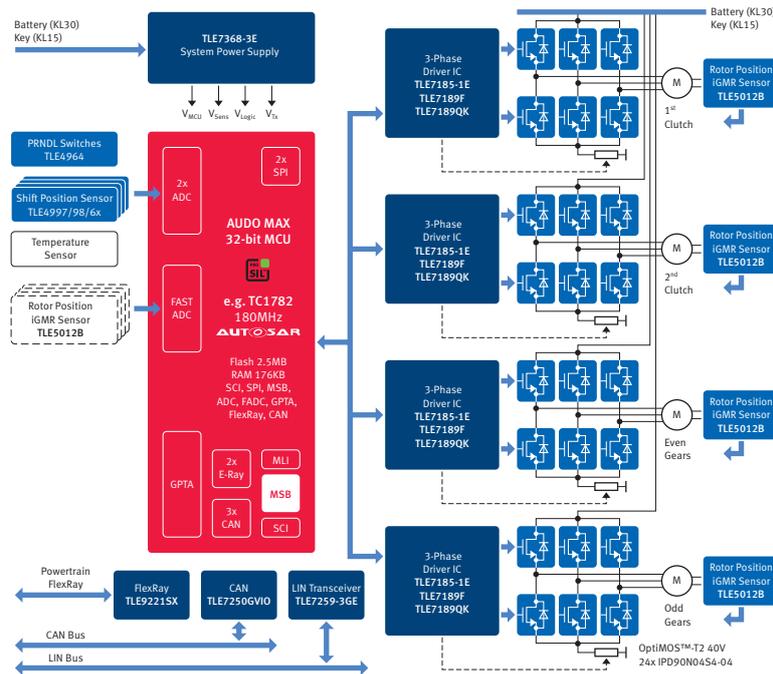
TLE7259-3GE

High-End LIN Transceiver

Block Diagram TLE7259-3GE



Application Example: Electro-mechanical Dual Clutch Transmission Control Module



Published by
Infineon Technologies AG
85579 Neubiberg, Germany

© 2013 Infineon Technologies AG.
All Rights Reserved.

Visit us:
www.infineon.com

Attention please!

The information given in this document shall in no event be regarded as a guarantee of characteristics ("Beschaffenheitsgarantie"). With respect to any examples or hints given herein, any typical values stated herein and/or any information regarding the application of the device, Infineon Technologies hereby disclaims any and all warranties and liabilities of any kind, including without limitation warranties of non-infringement of intellectual property rights of any third party.

Information

For further information on technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies Office (www.infineon.com).

Warnings

Due to technical requirements components may contain dangerous substances. For information on the types in question please contact your nearest Infineon Technologies Office. Infineon Technologies Components may only be used in life-support devices or systems with the express written approval of Infineon Technologies, if a failure of such components can reasonably be expected to cause the failure of that life-support device or system, or to affect the safety or effectiveness of that device or system. Life support devices or systems are intended to be implanted in the human body, or to support and/or maintain and sustain and/or protect human life. If they fail, it is reasonable to assume that the health of the user or other persons may be endangered.