

## Product Brief

# TLE7258D

## Basic LIN Transceiver without TxD Time-Out

The TLE7258D 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. Additionally the TLE7258D has no TxD time-out feature and therefore can communicate at very low baud-rates, supporting ISO 9141, K-Line and even MOST ECL serial communication protocols.

Being compliant to all LIN standards and with a wide operational voltage supply range, the TLE7258D can be used in all automotive applications.

In Sleep mode the TLE7258D draws typically less than 10 $\mu$ 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 TLE7258D especially suitable for partially supplied networks.

The TLE7258D 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 TLE7258D 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
- Infotainment with MOST ECL

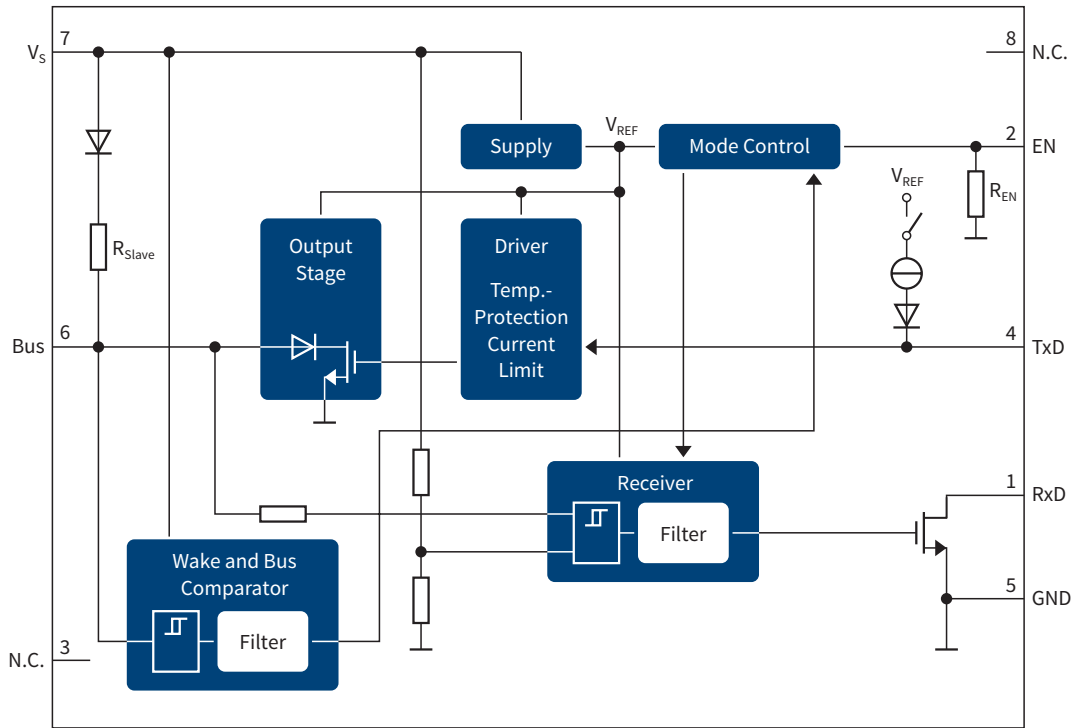
### Key Features

- Data rates up to 20kbaud
- No TxD time-out functionality
- Compliant to ISO 17987-4, LIN specification 2.2A and SAE J2602
- Very high ESD robustness of  $\pm 6$ kV according IEC61000-4-2 and HBM
- Low electromagnetic emission
- High immunity against EMI
- Very low current consumption in sleep mode (10 $\mu$ A)
- Digital I/O levels compatible for 3.3V and 5V microcontrollers
- Bus short to  $V_{BAT}$  protection and bus short to GND handling
- Tiny PG-TSON-8 package
- AEC Qualified

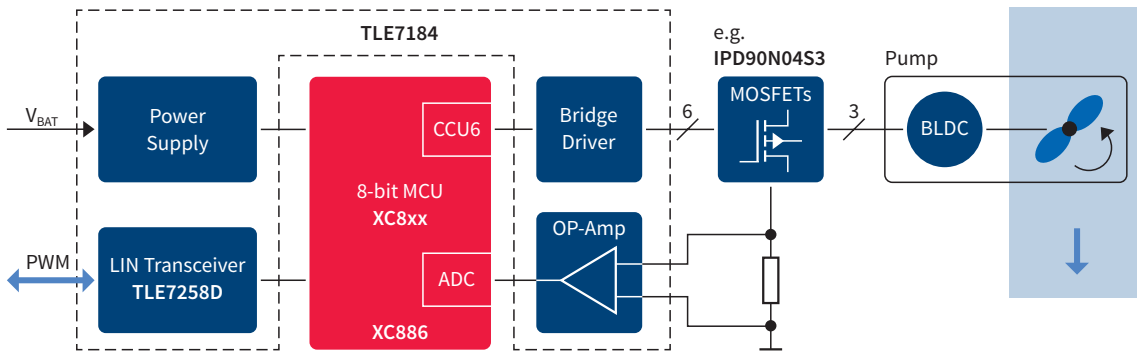
# TLE7258D

## Basic LIN Transceiver without TxD Time-Out

Block Diagram TLE7258D



### Application Example: Electric Water Pump



Published by  
Infineon Technologies AG  
85579 Neuburg, Germany

© 2014 Infineon Technologies AG.  
All Rights Reserved.

Visit us:  
[www.infineon.com](http://www.infineon.com)

Order Number: B124-I0031-V1-7600-EU-EC-P  
Date: 09 / 2014

**Attention please!**

The information given in this document shall in no event be regarded as a guarantee of conditions or 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](http://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.