



Product Brief

TLE8251VSJ



CAN transceiver for Flexible Data-rate up to 2 Mbit/s

The TLE8251VSJ transceiver is designed for CAN networks in automotive applications for the Japanese market. It is available in standard DSO-8 package and is certified according to latest VeLIO (Vehicle LAN Interoperability and Optimization) test requirements. Being pin- and footprint compatible to existing ECU designs using the predecessor TLE6251D, the TLE8251VSJ is enabling easy drop in transition to CAN FD.

As an interface between the physical bus layer and the CAN protocol controller, the TLE8251VSJ drives the signals to the bus and protects the microcontroller against transients generated from the network. Based on the excellent symmetry of the CANH and CANL signals, the TLE8251VSJ transceiver has very low levels of Electromagnetic Emission (EME) over a wide frequency range. The TLE8251VSJ is RoHS compliant and fulfills or exceeds the requirements of the ISO 11898-2 and ISO 11898-5 standards.

The TLE8251VSJ draws very low quiescent current in stand-by mode with V_{CC} being switched off, while still being able to wake-up by signals on the CAN bus. Based on the very low leakage currents on the CAN bus interface, the TLE8251VSJ transceiver provides excellent passive behavior in power-down state. With the V_{IO} input the TLE8251VSJ can interface either with 3.3 V or 5 V microcontrollers. These and other features make the TLE8251VSJ very well suited for mixed supply CAN networks.

Two different operation modes, additional fail-safe features like a TxD time-out, and the optimized output slew rates on the CANH and CANL signals make the TLE8251VSJ the ideal choice for large CAN networks with high data transmission rates as required in automotive CAN FD networks.

Key features

- > Compliant to ISO11898-2: 2003 and ISO11898-5: 2007
- > Guaranteed and improved loop delay symmetry to support CAN FD up to 2 Mbit/s
- > V_{IO} input for voltage adaption to 3.3 V and 5 V microcontrollers
- > CMOS level switching thresholds on RxD and TxD for best CAN FD signal symmetry
- > Transmitter supply V_{CC} can be switched off in stand-by mode
- > Minimized V_{IO} quiescent current of only 14 μ A (max)
- > Extended supply range on V_{CC} and V_{IO} supply
- > TxD time-out safety feature
- > Available in standard DSO-8 package
- > High Electromagnetic Immunity (EMI) and low Electromagnetic Emissions (EME)
- > Excellent ESD robustness of ± 10 kV at HBM and ± 8 kV according to IEC 61000-4-2
- > Protected against automotive transients
- > Overtemperature protection
- > Green product (RoHS compliant)
- > AEC-qualified



Lead-Free



Halogen-Free



Green



CAN FD



V_{IO}



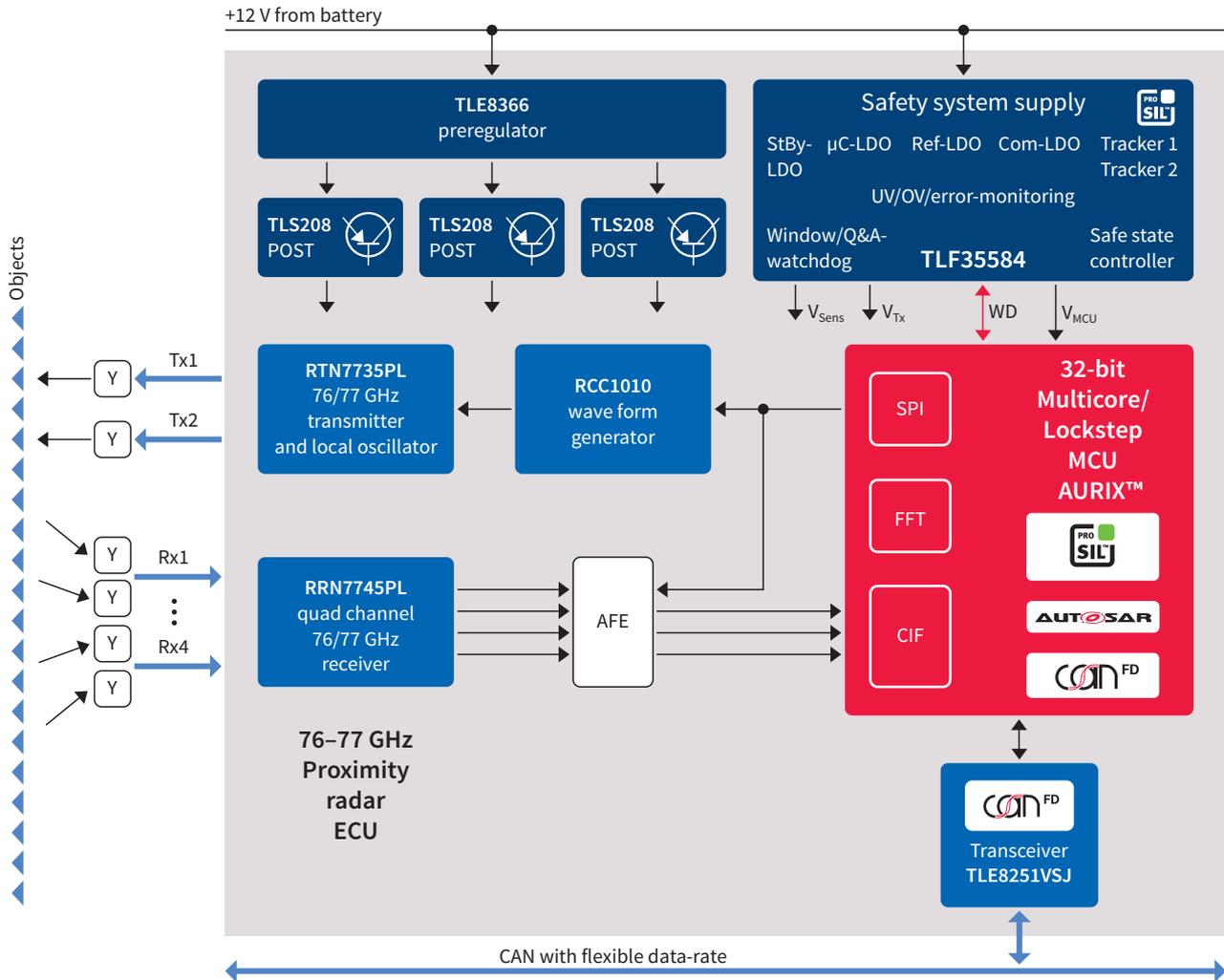
AEC Qualified

TLE8251VSJ



CAN transceiver for Flexible Data-rate up to 2 Mbit/s

Application example: long range radar module



Product summary

Type	Description	SP number / orderable part number
TLE8251VSJ	CAN FD 2 Mbit/s transceiver with bus wake capability in DSO-8	SP001398150/TLE8251VSJXUMA1

Published by
Infineon Technologies AG
81726 Munich, Germany

© 2016 Infineon Technologies AG.
All Rights Reserved.

Please note!

THIS DOCUMENT IS FOR INFORMATION PURPOSES ONLY AND ANY INFORMATION GIVEN HEREIN SHALL IN NO EVENT BE REGARDED AS A WARRANTY, GUARANTEE OR DESCRIPTION OF ANY FUNCTIONALITY, CONDITIONS AND/OR QUALITY OF OUR PRODUCTS OR ANY SUITABILITY FOR A PARTICULAR PURPOSE. WITH REGARD TO THE TECHNICAL SPECIFICATIONS OF OUR PRODUCTS, WE KINDLY ASK YOU TO REFER TO THE RELEVANT PRODUCT DATA SHEETS PROVIDED BY US. OUR CUSTOMERS AND THEIR TECHNICAL DEPARTMENTS ARE REQUIRED TO EVALUATE THE SUITABILITY OF OUR PRODUCTS FOR THE INTENDED APPLICATION.

WE RESERVE THE RIGHT TO CHANGE THIS DOCUMENT AND/OR THE INFORMATION GIVEN HEREIN AT ANY TIME.

Additional information

For further information on technologies, our products, the application of our products, delivery terms and conditions and/or prices, please contact your nearest Infineon Technologies office (www.infineon.com).

Warnings

Due to technical requirements, our products may contain dangerous substances. For information on the types in question, please contact your nearest Infineon Technologies office.

Except as otherwise explicitly approved by us in a written document signed by authorized representatives of Infineon Technologies, our products may not be used in any life-endangering applications, including but not limited to medical, nuclear, military, life-critical or any other applications where a failure of the product or any consequences of the use thereof can result in personal injury.