

# User Manual

## About this document

### Scope and purpose

This document provides description and information for the DSO-8 / TSON-8 CAN Demoboard. This Demoboard can be used for all Infineon 8-pin standard CAN transceivers:

- TLE9250SJ, TLE9250LE, TLE9250VSJ, TLE9250VLE, TLE9250XSJ, TLE9250XLE, TLE9251SJ, TLE9251LE, TLE9251VSJ, TLE9251VLE,

*Note: The following information is given as a hint for the implementation of our devices only and shall not be regarded as a description or warranty of a certain functionality, condition or quality of the device.*

### Intended audience

This document is intended for engineers who develop applications.

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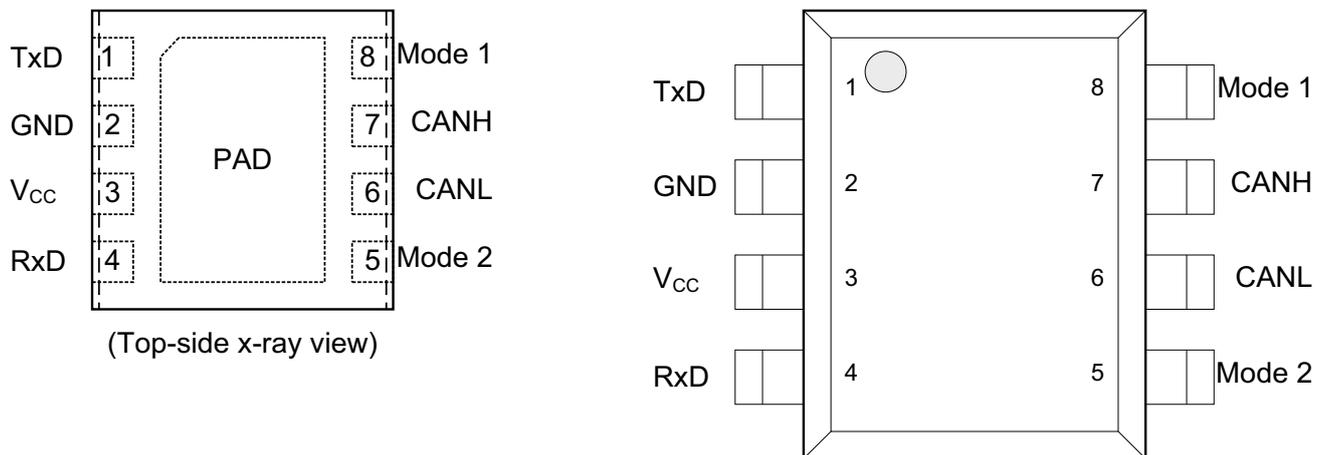
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**Summary**

**1 Summary**

This document is guideline for the HS CAN transceiver demoboard DSO-8/ TSON-8 from Infineon Technologies AG and provides information for the proper usage of the demoboard.

The demoboard can be used for all standard HS CAN transceiver on the market, which fulfill the OEM required standard pinout for DSO-8 or TSON-8 package (see **Figure 1**).



**Figure 1 Pin-out of standard 8-pin CAN transceiver**

**2 General Function**

The demoboard can be used for various test cases and various HS CAN transceiver. Power supply failures can be simulated as well as different modes of operation. A configurable bus load on CANH and CANL allows to evaluate the signal form depending on the bus load (standard termination and split termination). The demoboard should be used to evaluate existing and new CAN transceivers on the market. Advantages, risks and disadvantages of competitor devices versus Infineon devices can be tested and measured.



**Figure 2 Photo of the DSO-8 / TSON-8 CAN Demoboard**

### 3 Schematic and PCB Layout

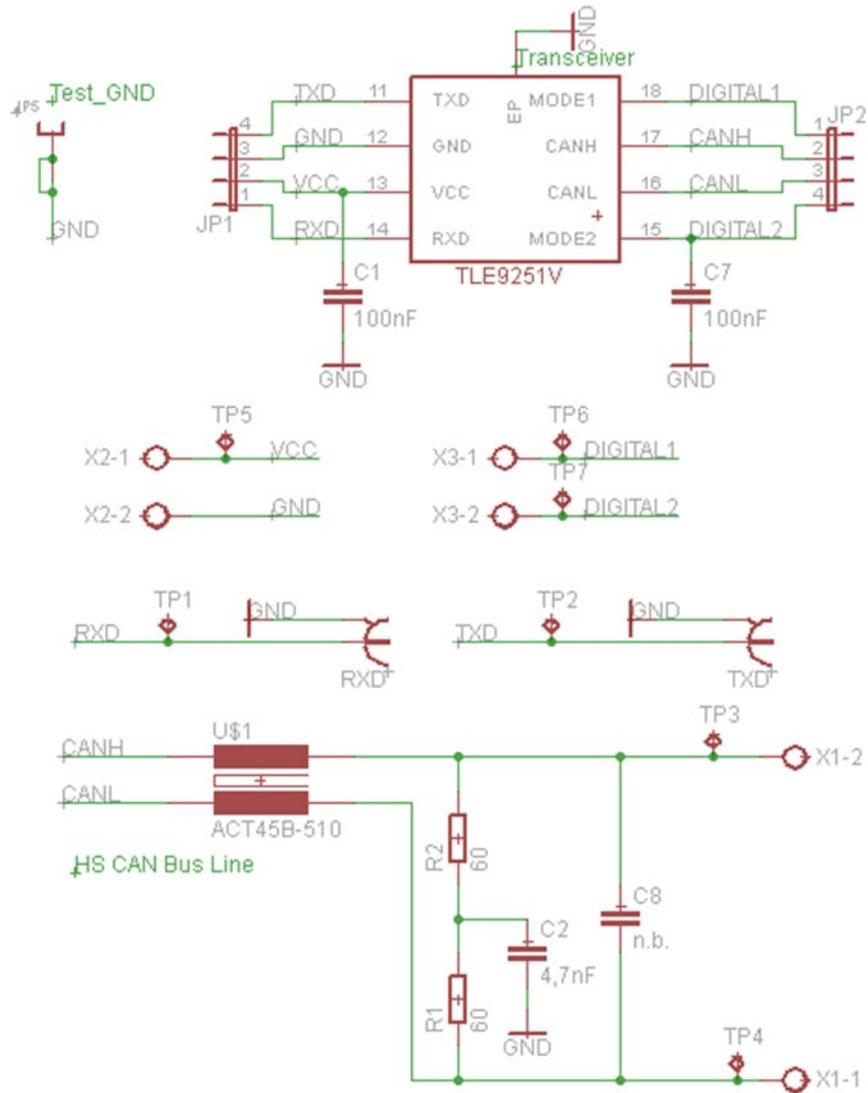


Figure 3 Schematic of DSO-8 / TSON-8 CAN Demoboard

Schematic and PCB Layout

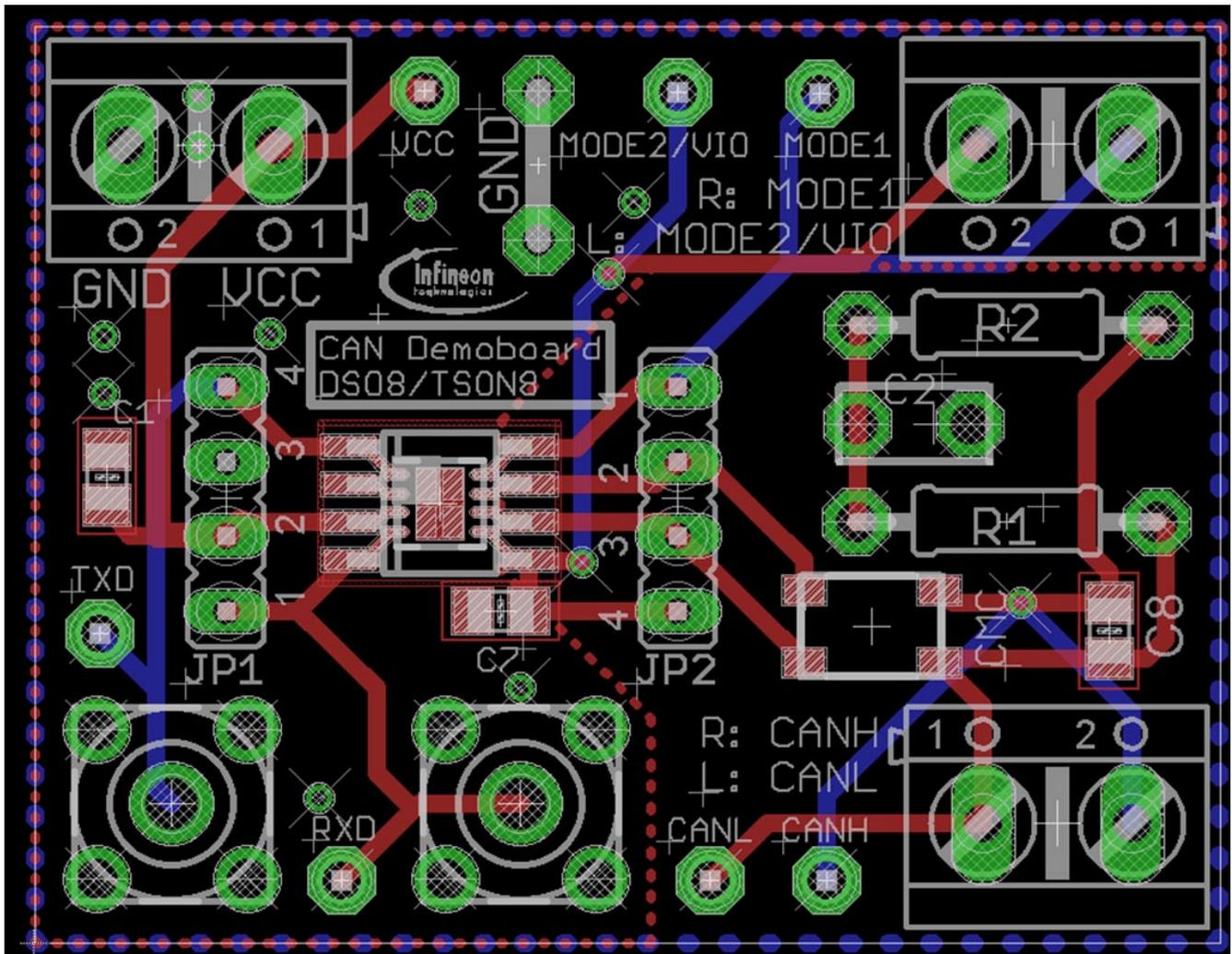


Figure 4 PCB layout of TLE925X demoboard (Top + Bottom)

Table 1 Bill of Material

| Part | Value | Device                         | Package                                    |
|------|-------|--------------------------------|--|
| C1   | 100nF | Capacitor                      | C0805                                      |
| C2   | 4.7nF | Capacitor                      | trough hole capacitor (0.05 inch diameter) |
| C7   | 100nF | Capacitor                      | C0805                                      |
| C8   | n.b.  | Optional Capacitor             | C0805                                      |
| JP1  | -     | Header Row                     |  |
| JP2  | -     | Header Row                     |  |
| JP5  | -     | GND Connection fo Oscilloscope |  |
| R1   | 60    | Resistor                       | trough hole resistor (0.05 inch diameter)  |
| R2   | 60    | Resistor                       | trough hole resistor (0.05 inch diameter)  |

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**Schematic and PCB Layout**

**Table 1 Bill of Material**

| <b>Part</b> | <b>Value</b> | <b>Device</b>                   | <b>Package</b>             |
|-------------|--------------|---------------------------------|----------------------------|
| TP1 - TP7   | -            | Test Points                     | p1-13 (0.05 inch diameter) |
| US1         | 100 $\mu$ H  | Common Mode Choke               | 5.9mm x 3.4mm              |
| US3         | -            | CAN Transceiver (e.g. TLE9251V) | PG-DSO-8 / PG-TSON-8       |
| X1 - X3     | -            | Connector                       | W237-132 (0.2 inch pitch)  |

**Summary**

## **4 Summary**

| <b>Revision</b> | <b>Date</b> | <b>Changes</b>              |
|-----------------|-------------|-----------------------------|
| 1.0             | 2018-07-31  | Demoboard Guideline created |

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**Do you have a question about any aspect of this document?**

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**Document reference**

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