

User Manual

About this document

Scope and purpose

This document provides description and information for the LIN Demoboard with integrated voltage regulator. This Demoboard can be used for all Infineon 8-pin standard LIN transceivers with integrated voltage regulator:

- TLE8457ASJ, TLE8457ALE, TLE8457BSJ, TLE8457BLE, TLE8457CSJ, TLE8457CLE, TLE8457DSJ, TLE8457DLE,

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.

Table of Contents

1	Summary	3
2	General Function	3
3	Schematic and PCB Layout	4
4	Summary	7

Summary

1 Summary

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

The demoboard can be used for all standard LIN LDO transceiver on the market, which fulfill the OEM required standard pinout for DSO-8 / TSON-8 package (see [Figure 1](#)).

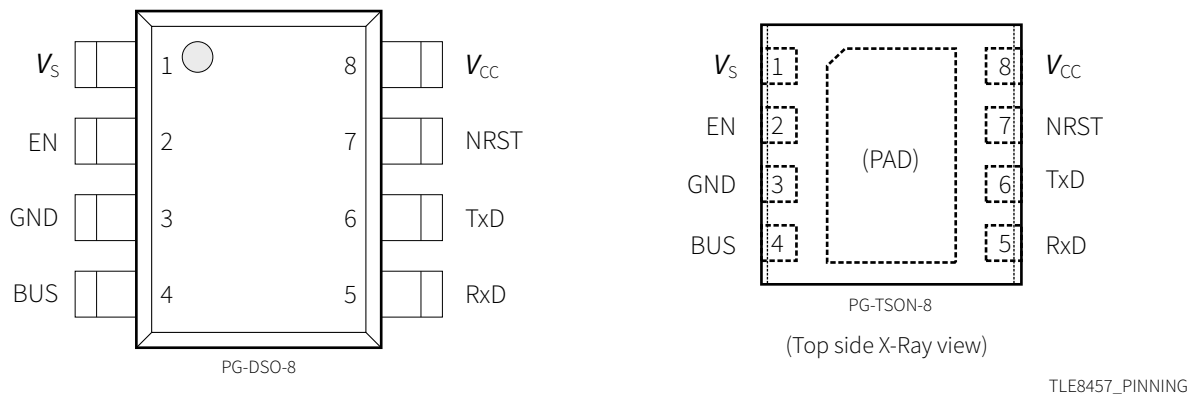


Figure 1 Pin-out of Infineon 8-pin LIN LDO transceiver TLE8457x

2 General Function

The demoboard can be used for various test cases and various LIN LDO transceiver. Power supply failures can be simulated as well as different modes of operation. The demoboard should be used to evaluate existing and new LIN LDO transceivers on the market. Advantages, risks and disadvantages of competitor devices versus Infineon devices can be tested and measured.

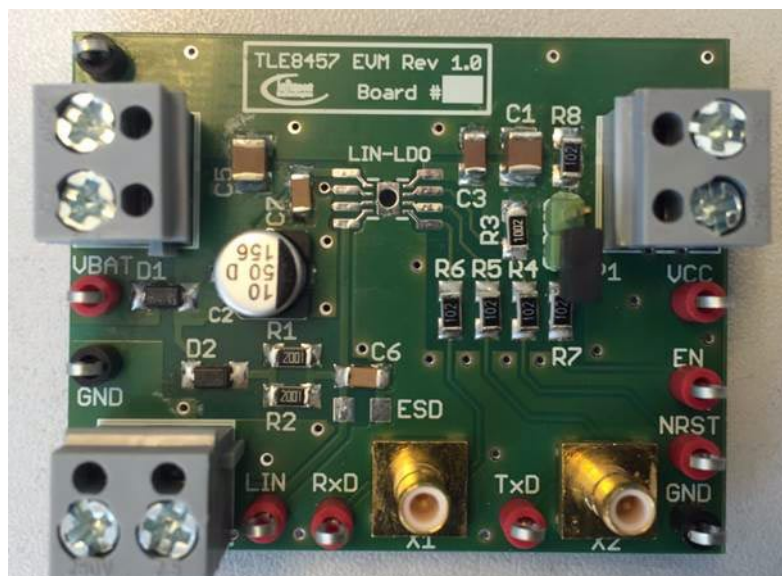


Figure 2 Photo of the DSO-8 / TSON-8 CAN Demoboard

3 Schematic and PCB Layout

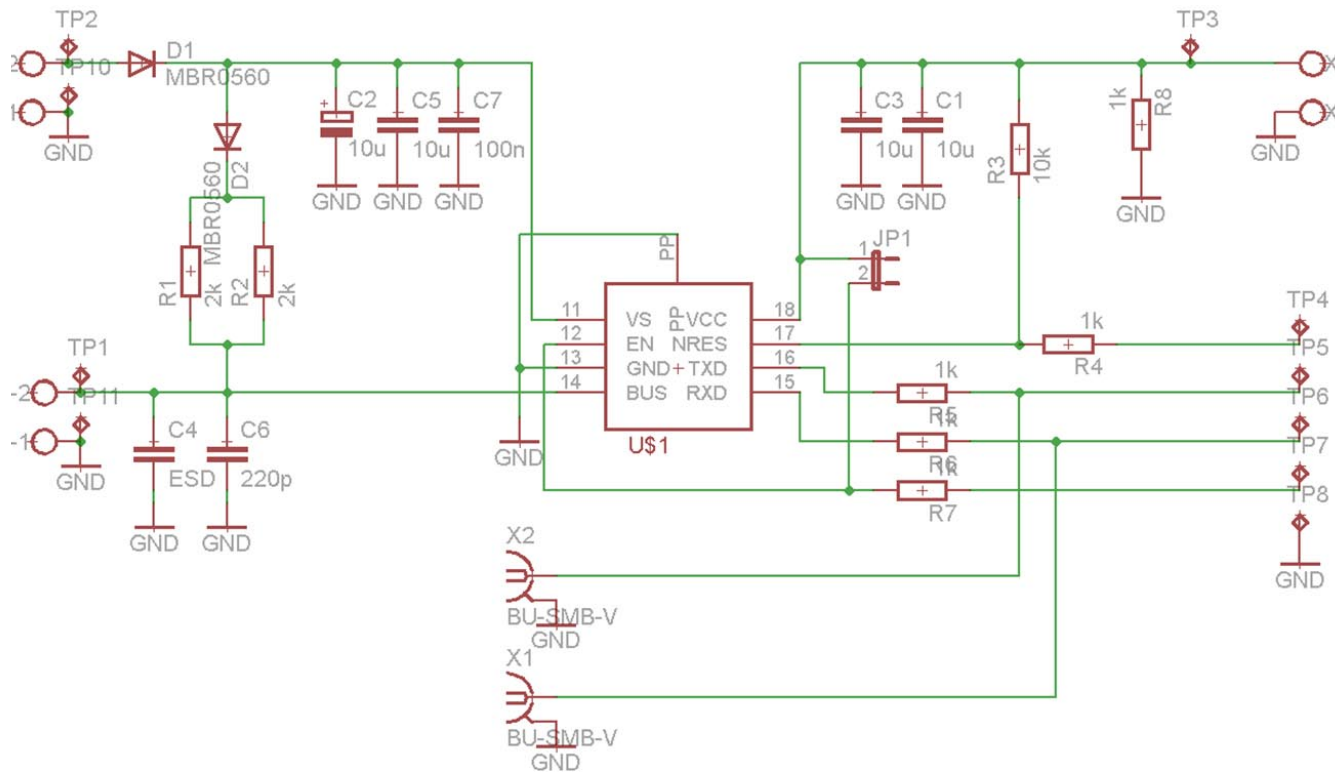


Figure 3 Schematic of TLE8457x LIN LDO demoboard

Schematic and PCB Layout

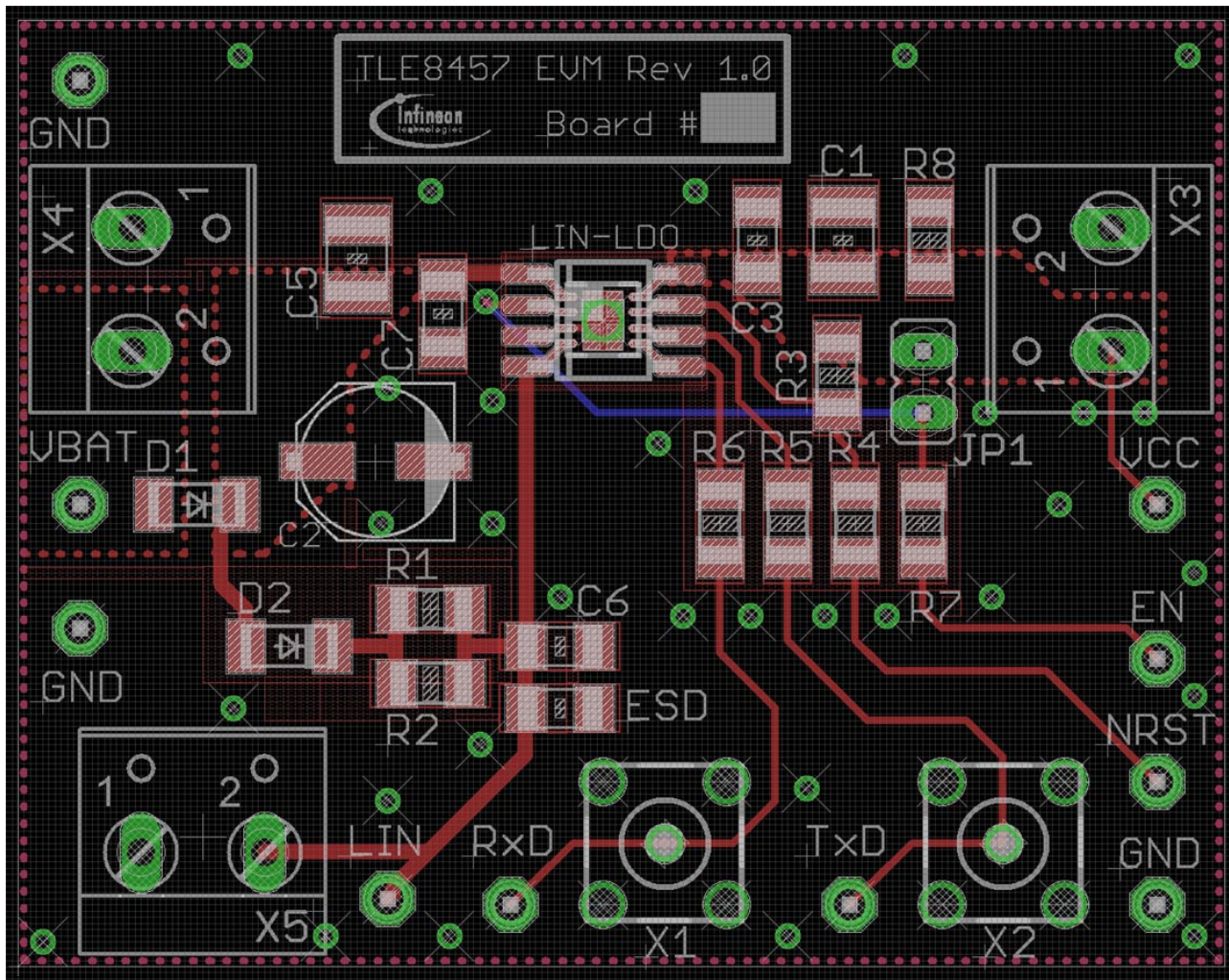


Figure 4 PCB layout of TLE8457 LIN LDO demoboard (Top + Bottom)

Table 1 Bill of Material

Part	Value	Device	Package
C1	10 μ F	Capacitor	C1206
C2	10 μ F	Capacitor	C1206
C3	10 μ F	Capacitor	C1206
C4	ESD	Place holder for optional ESD protection	C1206
C5	10 μ F	Capacitor	C1210
C6	220pF	Capacitor	C1206
C7	100nF	Capacitor	C1206
D1	MBR0560	Diode	C1206
D2	MBR0560	Diode	C1206
U\$1	-	TLE7257S/ TLE7258SJ / TLE7259-3GE	DSO-8 / TSON-8
JP1	-	Jumper	p1-13 (0.05 inch diameter)
LED1	100 μ H	LED	1206

Schematic and PCB Layout

Table 1 Bill of Material

Part	Value	Device	Package
R1	2k	CAN Transceiver (e.g. TLE9251V)	R1206
R2	2k	Connector	R1206
R3	10k	Resistance	R1206
R4	1k	Resistance	R1206
R5	1k	Resistance	R1206
R6	1k	Resistance	R1206
R7	1k	Resistance	R1206
R8	1k	Resistance	R1206
TP1 -TP11	-	Test Points	P1-13 (0.05 inch diameter)
T1	BCR108	NPN Transistor	SOT23
X1 / X2	-	Coax Connector	BU-SMB-V
X3 / X4 / X5	-	Connectors	W237-132 (0.2 pitch)

Summary

4 Summary

Revision	Date	Changes
1.0	2018-08-27	Demoboard Guideline created

Trademarks of Infineon Technologies AG

All referenced product or service names and trademarks are the property of their respective owners.

Edition 2018-08-27

Published by

Infineon Technologies AG

81726 Munich, Germany

© 2018 Infineon Technologies AG.

All Rights Reserved.

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

Email: erratum@infineon.com

**Document reference
Z8F63066797**

IMPORTANT NOTICE

The information contained in this application note is given as a hint for the implementation of the product only and shall in no event be regarded as a description or warranty of a certain functionality, condition or quality of the product. Before implementation of the product, the recipient of this application note must verify any function and other technical information given herein in the real application. 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) with respect to any and all information given in this application note.

The data contained in this document is exclusively intended for technically trained staff. It is the responsibility of customer's technical departments to evaluate the suitability of the product for the intended application and the completeness of the product information given in this document with respect to such application.

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

WARNINGS

Due to technical requirements 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 Infineon Technologies in a written document signed by authorized representatives of Infineon Technologies, Infineon Technologies' products may not be used in any applications where a failure of the product or any consequences of the use thereof can reasonably be expected to result in personal injury.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Infineon:](#)

[TLE8457LINLDOBOARDTOBO1](#)