# Product Qualification Report

# 1EDN7550U

DRIVER IC

## Description

This product qualification report describes the characteristics of the product with respect to quality and reliability.

The qualification sample selection was done on production lots which were manufactured and tested on standard production processes and meet the defined requirements.

The qualification test results of those products as outlined in this document are based on **JEDEC** for target applications and may reference existing qualification results of similar products. Such referencing is justified by the structural similarity of the products.

## Qualification Assessment

Fully qualified according to **JEDEC** for **Industrial Applications** and assessed as PASS

For further information about comparable products, please contact the nearest Infineon Technologies office (www.infineon.com).

**qualified since December 2019**

# 1EDN7550U
# PG-TSNP-6
# MSL: 1, 260°C

### Electrical Stress Test Results:

| Test Description | Abbr. | Condition | Duration | Lots/SS | Fail/Qty | Result |
|---|---|---|---|---|---|---|
| High Temperature Operating Life<br>JESD22 A108 | HTOL | Tj ≥ 125°C<br>Vcc ≥ $Vcc_{max}$ | 1000 h | 3 x 77 | 0 / 231 | PASS |
| Temperature Humidity Bias**<br>JESD22 A101<br>**or**<br>Biased Highly Accelerated Stress Test**<br>JESD22 A110 | THB*<br><br><br>HAST* | Ta = 85°C<br>RH = 85%<br>$Vcc_{max}$<br><br>Ta = 130°C/110°C<br>RH = 85%<br>$Vcc_{max}$ | 1000 h<br><br><br>96 h/264 h | 3 x 77 | 0 / 231 | PASS |
| ESD (HBM)***<br>JESD22-A114 / JS001 | HBM*** | 2<br>( 2000 V to < 4000 V ) | | | | PASS |
| ESD (CDM)***<br>JESD22-C101 / JS002 | CDM*** | C2a<br>( 500 V to < 750 V ) | | | | PASS |
| Latch-Up<br>JESD78 | LU | Class II | | | | PASS |

### Environmental Stress Test Results:

| Test Description | Abbr. | Condition | Duration | Lots/SS | Fail/Qty | Result |
|---|---|---|---|---|---|---|
| Pre-conditioning<br>J-STD020 / JESD22 A113 | PC | MSL and 3x<br>reflow 260°C | | 6 x 77 | 0 / 462 | PASS |
| High Temperature Storage Life<br>JESD22 A103 | HTSL | Ta ≥ 150°C | 1000 h | 3 x 77 | 0 / 231 | PASS |
| Temperature Cycling<br>JESD22 A104 | TC* | -55°C to +150°C | 1000 cyc. | 3 x 77 | 0 / 231 | PASS |

### Mechanical Stress Test Results:

| Test Description | Abbr. | Condition | Duration | Lots/SS | Fail/Qty | Result |
|---|---|---|---|---|---|---|
| Physical Dimensions<br>JESD B-100 | PD | | | 3 x 10 | 0 / 30 | PASS |
| Solderability<br>J-STD-002 | SD | | | 3 x 5 | 0 / 15 | PASS |

### Notes:

* For SMD devices reliability stress tests are performed after preconditioning test (PC) according to JESD22

** Selection of used stress test depending on specific availability of respective reliability stress equipment

*** ESD classification calculated based on an empirical model extracted per technology/package

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**Document reference**

**n.a.**

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