# Product Qualification Report

# ISO2H823V2.5

Isoface™

## 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).

**ISO2H823V2.5** **qualified before 2016**
**PG-VQFN-70-3**
**MSL: 3; 260°C**

**Electrical Stress Test Results:**

| Test Description | Abbr. | Condition | Duratio | Lots/SS | Fail/Qty | Result |
|---|---|---|---|---|---|---|
| High Temperature Operating Life JESD22-A108 | HTOL | Ta = 125°C V = max voltage | 1000 h | 3 x 77 | 0 / 231 | PASS |
| Temperature Humidity Biased JESD22 A101 | THB* | Ta = 85°C rh = 85% V = Min voltage | 1000 h | 3 x 74** | 0 / 222 | PASS |
| Latch-up JESD78 | LU | - | - | 1 x 6 | 0 / 6 | PASS |
| ESD (HBM) JESD22-A114 | HBM | Class 2 2000V to <4000V | - | - | - | PASS |
| ESD (CDM) JESD22-C101 | CDM | Class C3 1000V and more | - | - | - | PASS |

*** Stress started with 74pcs each lot due to board constraints*

**Environmental Stress Test Results:**

| Test Description | Abbr. | Condition | Duration | Lots/SS | Fail/Qty | Result |
|---|---|---|---|---|---|---|
| Pre-conditioning J-STD020 / JESD22 A113 | PC | MSL and 3 x reflow | | 9 x 77 | 0 / 693 | PASS |
| Temperature Cycling JESD22 A104 | TC* | -55°C to +150°C | 1000 cycles | 3 x 77 | 0 / 231 | PASS |
| Autoclave JESD22 A102 | AC* | Ta = 121°C rh = 100% | 96 h | 3 x 77 | 0 / 231 | PASS |
| High Temperature Storage Life JESD22-A103 | HTSL | Ta ≥ 150°C | 1000 h | 3 x 77 | 0 / 231 | PASS |

**Mechanical Stress Test Results:**

| Test Description | Abbr. | Condition | Duration | Lots/SS | Fail/Qty | Result |
|---|---|---|---|---|---|---|
| Destructive Physical Analysis | DPA | Samples from AC & TC | | 3 | 0 / 5 | PASS |

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

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**Do you have a question about this document?**

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**Document reference**

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