Product Qualification Report

IR4301M

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 **Standard Applications** and assessed as PASS

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

IR4301MTRPBF **qualified before 8/07/2020**
PG-IQFN-22-901
MSL: 2, 260°C

Electrical Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
High Temperature Operating Life JESD22 A108	HTOL	Tj ≥ 150°C	500 h	3x77	0/231	PASS
Highly Accelerated Stress Test JESD22 A110	HAST*	Ta = 130°C RH = 85 %	48 h	1x25	0/25	PASS

Environmental Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
Temperature Cycling JESD22 A104	TC*	-65°C to +150°C	250 cyc	3x25	0/75	PASS
Autoclave JESD22 A102	AC*	Ta = 121°C RH = 100 %	96 h	3x25	0/75	PASS
High Temperature Storage Life JESD22 A103	HTSL	Ta ≥ 150°C	500 h	3x25	0/75	PASS

Device Characterization and Classifications:
Mechanical Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
ESD Human Body Model JESD22 A114	ESD HBM	Class 2 2000 V to < 4000 V	-	-	-	PASS
ESD Charged Device Model JESD22 C101	ESD CDM	Class C3 ≥ 1000 V	-	-	-	PASS
Latch-Up JESD78	LU	Ta = 25°C	-	-	-	-

Notes:
* For SMD devices reliability stress tests performed after pre-conditioning test (PC)

Further abbreviations: MSL - moisture sensitivity level, Qty – quantity, RH – relative humidity, SS – sample size, Ta – ambient temperature

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Document reference

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