Product Qualification Report

XDPE1A2G7B-0300

Digital Multi-phase Controller

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

Qualified according to **JEDEC Standard** and assessed as PASS

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

Qualified 2023

XDPE1A2G7B-0300
PG-VQFN-56
MSL 3, 260°C

Electrical Stress Test Results*

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
High Temperature Operating Life JESD22-A108	HTOL	Ta ≥ 125°C + Bias	1000 h	3 x 77	0 / 231	PASS
Temperature Humidity Bias JESD22 A101 **Or** Biased Highly Accelerated Stress Test JESD22 A	THB** HAST**	Ta = 85°C RH = 85% + Bias Ta = 130°C RH = 85% + Bias	1000 h 96 h	 3 x 77	 0 / 231	 PASS

Environmental Stress Test Results*

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
Pre-conditioning (SMD device only) JESD22 A113	PC	MSL and 3x reflow 260°C		3 x 231	0 / 693	PASS
Temperature Cycling JESD22 A104	TC**	-55°C to +150°C	1000 cycles	3 x 77	0 / 231	PASS
High Temperature Storage Life JESD22-A103	HTSL	Ta = 150 °C	1000 h	3 x 77	0 / 231	PASS
Autoclave JESD22 A102 **Or** Unbiased Highly Accelerated Stress Test JESD22 A118	AC** UHAST**	Ta=121°C RH=100% Ta = 130°C RH = 85%	 96 h	 3 x 77	 0 / 231	 PASS

Notes:

* The stress test selections, conditions, and durations follow the requirements outlined in the JEDEC standards and might vary between products

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

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Email: erratum@infineon.com

Document reference

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