Product Qualification Report

IM68A130V01

XENSIV™

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).

IM68A130V01 qualified 2023
PG-TLGA-4-2
MSL: 1; 260°C

Electrical Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
High Temperature Operating Life JESD22-A108	HTOL	T_a=+125°C, V_{DD}=3.6V	1000h	3 x 77	0/231	PASS
Low Temperature Operating Life JESD22-A119	LTOL	T_a=-40°C, V_{DD}=3.6V	1000h	3 x 32	0/96	PASS
Temperature Humidity Bias JESD22-A101	PC + THB	MSL 1 pre-conditioning		3 x 32	0/96	PASS
		T_a=+85°C, 85% rH, V_{DD}=3.6V	1000h			PASS
ESD (SLT) IEC-61000-4-2	ESD-SLT	±15kV air	25x	3/3	0/9	PASS
		±8kV contact	25x	3/3	0/9	
ESD (HBM) JEDEC-JS001	ESD - HBM	Class 2 2000V to <4000V		3/3	0/9	PASS
ESD (CDM) JEDEC-JS002	ESD-CDM	Class C2a 500V to <750V		3/3	0/9	PASS
Latch Up JESD78E	LU	Class II A $T_a=T_{max\ op}$, I_{trig} ≥ 100mA		3/3	0/9	PASS

Environmental Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
Low Temperature Storage Life JESD22-A119	LTSL	T_a=-40°C	1000h	3 x 32	0/96	PASS
HighTemperature Storage Life JESD22-A103	HTSL	T_a=+125°C	1000h	3 x 32	0/96	PASS
Temperature Cycling JESD22-A104	PC + TC	MSL 1 pre- conditioning		3 x 32	0/96	PASS
		-40°C to +125°C, 30min per cycle	1000 cycles	3 x 32	0/96	PASS

Mechanical Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots	Fail/Qty	Result
Vibration Test IEC 60068-2-6 / MIL-STD 883K 2007.3	VVF	20 to 2000Hz, peak 20g in X, Y, Z	4 min each direction, 4 cycles	3 x 32	0/96	PASS
Mechanical Shock IEC 60068-2-27	MS	10000g/0.1ms in ±x, y, z direction	5 shocks in each direction	3 x 32	0/96	PASS
Reflow Solder IPC/JEDEC J-Std-020D-01	RS	3x reflow cycles, peak 260°C		3 x 32	0/96	PASS

Notes:
Preconditioning (PC) of the surface mounted devices is done according to JESD22 for certain reliability stress tests

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

Published by

Infineon Technologies AG

81726 München, Germany

© 2024 Infineon Technologies AG. All Rights Reserved.

Do you have a question about this document?

Email: erratum@infineon.com

Document reference
n.a.

IMPORTANT NOTICE
The information given in this document shall in no event be regarded as a guarantee of conditions or characteristics ("Beschaffenheitsgarantie").

With respect to any examples, hints or any typical values stated herein and/or any information regarding the application of the product, 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.

In addition, any information given in this document is subject to customer's compliance with its obligations stated in this document and any applicable legal requirements, norms and standards concerning customer's products and any use of the product of Infineon Technologies in customer's applications.

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 the product, technology delivery terms and conditions and prices please contact your 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.