Product Qualification Report

CY8C32xx/CY8C34xx/CY8C36xx/CY8C38xx

PSoC3 Programmable System-on-Chip

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 **JESD47** 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 **JESD47** for **Commercial / Industrial Applications** and assessed as PASS.

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

CY8C32xx/CY8C34xx/CY8C36xx/CY8C38xx

Electrical Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
Early Life Failure Rate JESD22 A108 / JESD74	EFR	Ta = 150°C	48h	3/4567	0/4567	PASS
High Temperature Operating Life JESD22 A108	HTOL	Ta = 150°C	500h	2/250	0/250	PASS

Environmental Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
Pre-Conditioning JESD22 A113	PC	MSL 3 3 x reflow	192h	3/561	0/561	PASS
Temperature Cycling JESD22 A104	TC*	-65°C to +150°C	500 cyc 1000 cyc	3/239 3/239	0/239 0/239	PASS
Biased HAST JESD22-A110	HAST*	Ta=130°C RH=85%	96h	3/83	0/83	PASS
Unbiased HAST JESD22 A118	uHAST*	Ta=130°C RH=85%	96h 192h	3/239 3/239	0/239 0/239	PASS
High Temperature Storage JESD22-A103 & A113	HTS	Ta=150°C	500h 1000h	1/80 1/80	0/80 0/80	PASS

Device Characterization and Classifications:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
ESD Charged Device Model JESD22-C101	ESD CDM	Class C3	-	1/3	0/3	PASS
ESD Human Body Model JESD220A114E	ESD HBM	Class 2	-	1/3	0/3	PASS
Static Latch Up JESD78	SLU	Class II	-	1/3	0/3	PASS

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

**Data source: QTP# 201202
- PSoC3 is a derivative product. 3 lots qualification was performed on the lead device in QTP#090706.

Document History Page

Document Title: QTP#201202: CY8C32xx/CY8C34xx/CY8C36xx/CY8C38xx PSoC3 Programmable System-on-Chip
Document Number: 002-37234

Rev.	ECN No.	Orig. of Change	Description of Change
**	7878233	HSTO	Initial Spec Release

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

Edition 2023-03-06
Published by
Infineon Technologies AG
81726 Munich, Germany

Do you have a question about this document?
Go to www.infineon.com/support

Document reference
002-37234 Rev. **

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.