

# 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](http://www.infineon.com)).

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### 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

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

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**Document reference**

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