

# RELIABILITY REPORT





# Reliability Data Report

## Product Family R546

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LTC3608 / LTC3609 / LTC3610 /  
LTC3611 / LTC3613

# Reliability Data Report

## Report Number: R546

Report generated on: Thu Aug 06 11:40:04 PDT 2015

<b>OPERATING LIFE TEST</b>					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (+125°C) <sup>1</sup>	No. of FAILURES <sub>2,3</sub>
QFN/DFN	77	0726	0726	77	0
Totals	77	-	-	77	0
<b>HIGHLY ACCELERATED STRESS TEST AT +130 DEG C / 85% RH</b>					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (+85°C) <sup>4</sup>	No. of FAILURES
QFN/DFN	48	0649	0649	92	0
Totals	48	-	-	92	0
<b>PRESSURE COOKER TEST AT 15 PSIG , +121 DEG C</b>					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
QFN/DFN	2409	0706	1422	219	0
Totals	2,409	-	-	219	0
<b>TEMP CYCLE FROM -65 TO 150 DEG C</b>					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	No. of FAILURES
QFN/DFN	2952	0649	1417	1016	0
Totals	2,952	-	-	1,016	0
<b>THERMAL SHOCK FROM -65 TO 150 DEG C</b>					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	No. of FAILURES
QFN/DFN	3055	0706	1417	1127	0
Totals	3,055	-	-	1,127	0
<b>HIGH TEMPERATURE BAKE AT 150 DEG C</b>					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
QFN/DFN	619	0748	1349	619	0
Totals	619	-	-	619	0

(1) Assumes Activation Energy = 0.7 Electron Volts  
(2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =153.88 FITS  
(3) Mean Time Between Failure in Years = 741.83  
(4) Assumes 20X Acceleration from 85 °C to +130 °C  
Note 1: 1 FIT = 1 Failure in One Billion Hours.  
Note 2: HAST, Temp Cycle & Thermal Shock are subjected to J-STD-020 MSL Preconditioning

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<b>HIGH TEMPERATURE BAKE AT 175 DEG C</b>					
<b>PACKAGE TYPE</b>	<b>SAMPLE SIZE</b>	<b>OLDEST DATE CODE</b>	<b>NEWEST DATE CODE</b>	<b>K DEVICE HRS</b>	<b>No. of FAILURES</b>
QFN/DFN	276	0706	0748	276	0
Totals	276	-	-	276	0
<b>BOARD MOUNTED TEMP CYCLE FROM -40 TO 125 DEG C</b>					
<b>PACKAGE TYPE</b>	<b>SAMPLE SIZE</b>	<b>OLDEST DATE CODE</b>	<b>NEWEST DATE CODE</b>	<b>K DEVICE HRS</b>	<b>No. of FAILURES</b>
QFN/DFN	185	0649	0707	345	0
Totals	185	-	-	345	0