



## Reliability Data Report

### Product Family R550

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LTC5510 / LTC5540 / LTC5541 /  
LTC5542 / LTC5543 / LTC5544 /  
LTC5548 / LTC5549 / LTC5551 /  
LTC5567 / LTC5569 / LTC5576 /  
LTC5577 / LTC5582 / LTC5583 /  
LTC5584 / LTC5585 / LTC5588 /  
LTC5590 / LTC5591 / LTC5592 /  
LTC5593 / LTC5599

# Reliability Data Report

## Report Number: R550

Report generated on: Thu May 05 13:44:52 PDT 2016

### OPERATING LIFE TEST

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (+125°C) <sup>1</sup>	No. of FAILURES <sup>2, 3</sup>
QFN/DFN	2001	0839	1511	1598	0
Totals	2,001	-	-	1,598	0

### HIGHLY ACCELERATED STRESS TEST AT +130 DEG C / 85% RH

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (+85°C) <sup>4</sup>	No. of FAILURES
QFN/DFN	76	1450	1450	291	0
Totals	76	-	-	291	0

### PRESSURE COOKER TEST AT 15 PSIG , +121 DEG C

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
QFN/DFN	2674	0930	1513	285	0
Totals	2,674	-	-	285	0

### TEMP CYCLE FROM -65 TO 150 DEG C

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	No. of FAILURES
QFN/DFN	2739	0930	1513	1205	0
Totals	2,739	-	-	1,205	0

### THERMAL SHOCK FROM -65 TO 150 DEG C

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	No. of FAILURES
QFN/DFN	2594	0930	1513	1064	0
Totals	2,594	-	-	1,064	0

### HIGH TEMPERATURE BAKE AT 150 DEG C

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
QFN/DFN	580	0930	1513	580	0
Totals	580	-	-	580	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =7.41 FITS

(3) Mean Time Between Failure in Years = 15395.32

(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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HIGH TEMPERATURE BAKE AT 175 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
QFN/DFN	153	0930	1001	154	0
Totals	153	-	-	154	0