



## Reliability Data Report Product Family R570

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LT8300 \ LT8301 \ LT8302 \ LT8303 \  
LT8304 \ LT8309 \ LT8330 \ LT8331 \  
LT8601 \ LT8602 \ LT8609 \ LT8610 \  
LT8611 \ LT8612 \ LT8613 \ LT8614 \  
LT8616 \ LT8620 \ LT8640 \ LT8641 \  
LT8697

# Reliability Data Report

## Report Number: R570

Report generated on: Thu Sep 22 11:01:25 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 <sub>2, 3</sub>
SOIC/MSOP	11516	1206	1538	4117	0
QFN/DFN	2754	1112	1531	2117	0
SOT	539	1206	1502	1800	0
Totals	14,809	-	-	8,034	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
SOIC/MSOP	510	1318	1514	1080	0
QFN/DFN	517	1117	1548	1701	0
SOT	209	1141	1220	728	0
Totals	1,236	-	-	3,509	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
SSOP/TSSOP	153	1504	1524	51	0
QFN/DFN	2190	0227	1548	345	0
SOT	343	1302	1443	8	0
SOIC/MSOP	2535	1239	1526	338	0
Totals	5,221	-	-	742	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
SSOP/TSSOP	176	1504	1524	176	0
QFN/DFN	2505	0227	1548	2075	0
SOT	781	1141	1443	424	0
SOIC/MSOP	2779	1240	1526	1632	0
Totals	6,241	-	-	4,307	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
SSOP/TSSOP	154	1504	1524	154	0
QFN/DFN	2377	0227	1548	1694	0
SOT	624	1141	1443	270	0
SOIC/MSOP	2247	1240	1517	1417	0
Totals	5,402	-	-	3,535	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55 °C, 60% Confidence Level = 1.47 FITS

(3) Mean Time Between Failure in Years = 77400.51

(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>					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
SSOP/TSSOP	50	1524	1524	50	0
QFN/DFN	938	0227	1548	900	0
SOIC/MSOP	222	1325	1332	222	0
Totals	1,210	-	-	1,172	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	250	1425	1519	175	0
SOIC/MSOP	773	1308	1526	817	0
Totals	1,023	-	-	992	0