



Reliability Data Report

Product Family R409

LT5500 / LT5502 / LT5503 / LT5504 / LT5506 / LT5511 / LT5512 / LT5514 /
LT5515 / LT5516 / LT5517 / LT5518 / LT5519 / LT5520 / LT5521 / LT5522 /
LT5524 / LT5525 / LT5526 / LT5527 / LT5528 / LT5534 / LT5535 / LT5536 /
LT5537 / LT5538 / LT5546 / LT5554 / LT5557 / LT5558 / LT5560 / LT5568 /
LT5571 / LT5572 / LT5575 / LT5578 / LT5581 / LT5587

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Report Number: R409

Report generated on: Fri Dec 12 10:01:17 PST 2014

OPERATING LIFE TEST

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (+125°C) ¹	No. of FAILURES _{2,3}
QFN/DFN	2985	0302	1320	2050	0
SSOP/TSSOP	1019	9840	0502	1037	0
SOIC/MSOP	250	0213	0302	141	0
Totals	4,254	-	-	3,228	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) ⁴	No. of FAILURES
BGA 15X09	127	1313	1313	1636	0
QFN/DFN	184	0447	0704	353	0
Totals	311	-	-	1,989	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	4116	0215	1313	972	0
SSOP/TSSOP	1650	9840	0951	409	0
LGA 15X09	100	0931	0933	4	0
SOIC/MSOP	100	0211	0813	19	0
SOT	79	0531	0616	26	0
Totals	6,045	-	-	1,430	0

TEMP CYCLE FROM -55 TO 125 DEG C

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	No. of FAILURES
BGA 15X09	77	1313	1313	77	0
Totals	77	-	-	77	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	3823	0215	1313	2005	0
SSOP/TSSOP	1983	9840	1022	1131	0
SOIC/MSOP	100	0211	0813	55	0
SOT	80	0531	0616	40	0
Totals	5,986	-	-	3,231	0

(1) Assumes Activation Energy = 1.0 Electron Volts

(2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =0.57 FITS

(3) Mean Time Between Failure in Years = 201011.11

(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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THERMAL SHOCK FROM -55 TO 125 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	No. of FAILURES
BGA 15X09	75	1313	1313	75	0
Totals	75	-	-	75	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	3746	0320	1313	2164	0
SSOP/TSSOP	1031	9905	1022	484	0
SOIC/MSOP	50	0813	0813	5	0
SOT	80	0531	0616	40	0
Totals	4,907	-	-	2,693	0
HIGH TEMPERATURE BAKE AT 150 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
BGA 15X09	77	1313	1313	77	0
QFN/DFN	150	0901	1304	150	0
Totals	227	-	-	227	0
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	154	0814	0814	154	0
Totals	154	-	-	154	0