

RELIABILITY REPORT





Reliability Data Report

Product Family R419

LTC1700 / LTC1875 / LTC1877 / LTC1878 / LTC1879 / LTC3404 /
LTC3450 / LTC3457 / LTC3458 / LTC3459 / LTC3499 / LTC3524 /
LTC3552 / LTC3703 / LTC3705 / LTC3706 / LTC3708 / LTC3725 /
LTC3726 / LTC3765 / LTC3766 / LTC3806 / LTC3811 / LTC4010 /
LTC4011 / LTC4440 / LTC4441 / LTC4442 / LTC4443 / LTC4444 /
LTC4446 / LTC4449

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Report generated on: Mon Apr 04 09:48:21 PDT 2016

OPERATING LIFE TEST					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (+125°C) ¹	No. of FAILURES _{2,3}
SSOP/TSSOP	1015	0201	1116	1053	0
SOIC/MSOP	4726	9943	1450	3755	0
QFN/DFN	512	0421	0745	539	0
SOT	122	0337	1438	122	0
Totals	6,375	-	-	5,469	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
SOIC/MSOP	95	0123	0123	136	0
SOT	100	0641	1438	317	0
Totals	195	-	-	453	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	5761	0220	1417	372	0
SOIC/MSOP	7915	9943	1409	506	0
QFN/DFN	5521	0338	1416	349	0
SOT	914	0325	1438	216	0
Totals	20,111	-	-	1,443	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	5617	0220	1417	1068	0
SOIC/MSOP	14586	9943	1409	2332	0
QFN/DFN	6668	0338	1416	1325	0
SOT	728	0325	1438	510	0
Totals	27,599	-	-	5,235	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	5102	0303	1417	883	0
SOIC/MSOP	3856	0006	1409	1178	0
QFN/DFN	5399	0420	1416	1076	0
SOT	699	0347	1438	477	0
Totals	15,056	-	-	3,614	0

(1) Assumes Activation Energy = 0.7 Electron Volts
 (2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =2.17 FITS
 (3) Mean Time Between Failure in Years = 52689
 (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 150 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
QFN/DFN	404	0749	1325	379	0
SOT	440	0641	0641	440	0
Totals	844	-	-	819	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	230	0749	1048	230	0
SSOP/TSSOP	77	1048	1048	77	0
SOIC/MSOP	154	1049	1049	154	0
SOT	500	0641	1408	476	0
Totals	961	-	-	937	0