



Reliability Data Report Product Family R478

LTC1403 \ LTC1407 \ LTC1408 \ LTC2201 \ LTC2202 \
LTC2203 \ LTC2204 \ LTC2205 \ LTC2206 \ LTC2207 \
LTC2208 \ LTC2209 \ LTC2215 \ LTC2216 \ LTC2217 \
LTC2220 \ LTC2221 \ LTC2222 \ LTC2223 \ LTC2224 \
LTC2225 \ LTC2226 \ LTC2227 \ LTC2228 \ LTC2229 \
LTC2230 \ LTC2231 \ LTC2232 \ LTC2233 \ LTC2234 \
LTC2236 \ LTC2237 \ LTC2238 \ LTC2239 \ LTC2245 \
LTC2246 \ LTC2247 \ LTC2248 \ LTC2249 \ LTC2250 \
LTC2251 \ LTC2252 \ LTC2253 \ LTC2254 \ LTC2255 \
LTC2272 \ LTC2273 \ LTC2274 \ LTC2280 \ LTC2281 \
LTC2282 \ LTC2283 \ LTC2284 \ LTC2285 \ LTC2286 \
LTC2287 \ LTC2288 \ LTC2289 \ LTC2290 \ LTC2291 \
LTC2292 \ LTC2293 \ LTC2294 \ LTC2295 \ LTC2296 \
LTC2297 \ LTC2298 \ LTC2299 \ LTC2350 \ LTC2351 \
LTC2355 \ LTC2356 \ LTC2360 \ LTC2361 \ LTC2362 \
LTC2365 \ LTC2366 \ LTC2372 \ LTC2373

Reliability Data Report

Report Number: R478

Report generated on: Mon Aug 17 11:54:22 PDT 2015

OPERATING LIFE TEST					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (+125°C) ¹	No. of FAILURES _{2, 3}
SOIC/MSOP	1014	0309	1428	652	0
QFN/DFN	1313	0438	0740	1189	0
QFP	154	0713	0746	154	0
TQFP	77	0713	0713	77	0
SOT	233	0718	0801	233	0
Totals	2,791	-	-	2,305	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
QFN/DFN	152	0420	0429	553	0
Totals	152	-	-	553	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
SOIC/MSOP	606	0308	1413	98	0
QFN/DFN	13945	0401	1422	1936	0
QFP	1432	0652	1022	402	0
SOT	1352	0726	1238	79	0
Totals	17,335	-	-	2,515	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
SOIC/MSOP	605	0308	1413	267	0
QFN/DFN	13830	0401	1422	5236	0
QFP	1251	0652	0906	1045	0
SOT	276	0716	1238	58	0
Totals	15,962	-	-	6,606	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
SOIC/MSOP	527	0308	1413	257	0
QFN/DFN	12096	0401	1422	4905	0
QFP	1180	0652	0902	811	0
SOT	177	0740	1238	48	0
Totals	13,980	-	-	6,021	0

- (1) Assumes Activation Energy = 0.7 Electron Volts
 (2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =5.14 FITS
 (3) Mean Time Between Failure in Years = 22206.65
 (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	1395	0814	1410	1321	0
Totals	1,395	-	-	1,321	0

HIGH TEMPERATURE BAKE AT 175 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
SOT	240	0803	1127	240	0
Totals	240	-	-	240	0