



Reliability Data Report

Product Family R538

LTC2000 \ LTC2001 \ LTC2107 \ LTC2122 \ LTC2123 \
LTC2124 \ LTC2140 \ LTC2141 \ LTC2142 \ LTC2143 \
LTC2144 \ LTC2145 \ LTC2150 \ LTC2151 \ LTC2152 \
LTC2153 \ LTC2155 \ LTC2156 \ LTC2157 \ LTC2158 \
LTC2159 \ LTC2160 \ LTC2161 \ LTC2162 \ LTC2163 \
LTC2164 \ LTC2165 \ LTC2170 \ LTC2171 \ LTC2172 \
LTC2173 \ LTC2175 \ LTC2180 \ LTC2181 \ LTC2182 \
LTC2183 \ LTC2184 \ LTC2185 \ LTC2188 \ LTC2190 \
LTC2191 \ LTC2192 \ LTC2193 \ LTC2194 \ LTC2195 \
LTC2256 \ LTC2257 \ LTC2258 \ LTC2259 \ LTC2260 \
LTC2261 \ LTC2262 \ LTC2263 \ LTC2264 \ LTC2265 \
LTC2266 \ LTC2267 \ LTC2268 \ LTC2269 \ LTC2270 \
LTC2271

Reliability Data Report

Report Number: R538

Report generated on: Wed Feb 10 17:21:42 PST 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} |
| BGA 15X09 | 77 | 1402 | 1402 | 77 | 0 |
| QFN/DFN | 468 | 0921 | 1407 | 468 | 0 |
| Totals | 545 | - | - | 545 | 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 | 449 | 1246 | 1419 | 10 | 0 |
| Totals | 449 | - | - | 10 | 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 | 400 | 1246 | 1414 | 40 | 0 |
| Totals | 400 | - | - | 40 | 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 | 400 | 1246 | 1414 | 40 | 0 |
| Totals | 400 | - | - | 40 | 0 |

- (1) Assumes Activation Energy = 0.7 Electron Volts
 (2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =21.74 FITS
 (3) Mean Time Between Failure in Years = 5250.6

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 | 50 | 1249 | 1249 | 25 | 0 |
| Totals | 50 | - | - | 25 | 0 |
| | | | | | |