



Reliability Data Report

Product Family R596

LTM2881 / LTM2882 / LTM2883 /
LTM2884 / LTM2892

Reliability Data Report

Report Number: R596

Report generated on: Sat Oct 26 10:14:08 PDT 2013

OPERATING LIFE TEST					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (+125°C) ¹	No. of FAILURES ^{2, 3}
LGA 11X15	308	0920	1149	308	0
Totals	308	-	-	308	0

HIGHLY ACCELERATED STRESS TEST AT +131 DEG C / 85% RH					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (+85°C) ⁴	No. of FAILURES
BGA 11X15	76	1015	1015	145	0
LGA 11X15	52	1250	1250	199	0
Totals	128	-	-	344	0

TEMP CYCLE FROM +20+70 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	No. of FAILURES
BGA 11X15	150	1242	1242	450	0
Totals	150	-	-	450	0

TEMP CYCLE FROM 0 TO 100 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	No. of FAILURES
BGA 11X15	267	1242	1302	523	0
Totals	267	-	-	523	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
BGA 11X15	4589	1015	1318	1024	0
LGA 11X15	2496	0940	1319	1246	0
Totals	7,085	-	-	2,270	0

TEMP CYCLE FROM -40 TO 125 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	No. of FAILURES
BGA 11X15	318	0940	1302	457	0
LGA 11X15	268	0920	0931	509	0
Totals	586	-	-	966	0

(1) Assumes Activation Energy = 1.0 Electron Volts
 (2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =5.94 FITS
 (3) Mean Time Between Failure in Years = 19232.187
 (4) Assumes 20X Acceleration from 85 °C to +131 °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 3/4 Preconditioning

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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 11X15	401	1209	1231	212	0
LGA 11X15	460	1017	1250	579	0
Totals	861	-	-	791	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
BGA 11X15	4290	0940	1318	1227	0
LGA 11X15	2330	0950	1319	1035	0
Totals	6,620	-	-	2,262	0
THERMAL SHOCK FROM -40 TO 125 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	No. of FAILURES
LGA 11X15	292	0920	0931	584	0
Totals	292	-	-	584	0
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 11X15	335	1209	1231	239	0
LGA 11X15	461	1017	1250	614	0
Totals	796	-	-	853	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 11X15	2994	0940	1328	2692	0
LGA 11X15	2090	0920	1316	2069	0
Totals	5,084	-	-	4,761	0
HIGH TEMPERATURE BAKE AT 175 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
LGA 11X15	154	0920	0920	231	0
Totals	154	-	-	231	0

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HIGH TEMPERATURE BAKE AT 125 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
BGA 11X15	445	1225	1318	321	0
LGA 11X15	100	1316	1319	50	0
Totals	545	-	-	371	0