

RELIABILITY REPORT





NOW PART OF



Reliability Data Report Product Family R596

LTM2881 / LTM2882 / LTM2883 /
LTM2884 / LTM2885 / LTM2886 /
LTM2887 / LTM2889 / LTM2892 /
LTM2893 / LTM2894

Reliability Data Report

Report Number: R596

Report generated on: Mon Mar 05 11:08:42 PST 2018

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 06X09	77	1149	1149	77	0
BGA 11X15	77	1113	1113	77	0
BGA 15X15	77	1238	1238	153	0
LGA 11X15	154	0920	0931	154	0
Totals	385	-	-	461	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 11X15	1166	1015	1526	2803	0
BGA 15X15	45	1518	1518	172	0
LGA 11X15	52	1250	1250	199	0
Totals	1,263	-	-	3,174	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 06X09	50	1521	1521	5	0
BGA 11X15	10806	0940	1636	2061	0
BGA 15X15	393	1516	1552	39	0
LGA 11X15	4151	0950	1606	1089	0
Totals	15,400	-	-	3,194	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 =3.98 FITS
(3) Mean Time Between Failure in Years = 28706.98
(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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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 06X09	203	1149	1646	158	0
BGA 11X15	10929	1137	1647	5386	0
BGA 15X15	508	1150	1704	328	0
LGA 11X15	2544	1017	1517	787	0
Totals	14,184	-	-	6,659	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	14213	0940	1512	2689	0
BGA 15X15	50	1522	1522	5	0
LGA 11X15	4827	0950	1505	1258	0
Totals	19,090	-	-	3,952	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 06X09	146	1149	1215	146	0
BGA 11X15	2409	1137	1508	3022	0
BGA 15X15	308	1150	1518	308	0
LGA 11X15	461	1017	1250	614	0
Totals	3,324	-	-	4,090	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

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	4645	0940	1526	4246	0
LGA 11X15	2271	0920	1442	2348	0
Totals	6,916	-	-	6,594	0

HIGH TEMPERATURE BAKE AT 125 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
BGA 06X09	50	1521	1521	50	0
BGA 11X15	9619	1225	1647	9172	0
BGA 15X15	393	1521	1703	343	0
LGA 11X15	2951	1314	1606	2876	0
Totals	13,013	-	-	12,441	0

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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	77	0920	0920	115	0
Totals	77	-	-	115	0