

RELIABILITY REPORT





Reliability Data Report Product Family R595

LTC2980 / LTM2987

Reliability Data Report

Report Number: R595

Report generated on: Wed Jul 20 16:38:35 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
BGA 12X12	77	1430	1430	77	0
Totals	77	-	-	77	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 12X12	231	1429	1432	887	0
BGA 15X15	996	1302	1543	1912	0
Totals	1,227	-	-	2,799	0

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 12X12	231	1429	1432	301	0
BGA 15X15	1403	1211	1543	988	0
Totals	1,634	-	-	1,289	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 12X12	230	1429	1432	230	0
BGA 15X15	966	1211	1542	968	0
Totals	1,196	-	-	1,198	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 15X15	50	1419	1419	5	0
Totals	50	-	-	5	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 12X12	231	1429	1432	231	0
BGA 15X15	1096	1211	1543	1058	0
Totals	1,327	-	-	1,289	0

- (1) Assumes Activation Energy = 1.0 Electron Volts
 (2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =23.81 FITS
 (3) Mean Time Between Failure in Years = 4794.87
 (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 125 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
BGA 15X15	148	1431	1501	148	0
Totals	148	-	-	148	0