

# RELIABILITY REPORT





NOW PART OF



# Reliability Data Report

## Product Family R583

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LTM4626 / LTM4636 /

LTM4638 / LTM4657 /

LTM4664 / LTM4678 /

LTM4680 / LTM4700

# Reliability Data Report

## Report Number: R583

Report generated on: Tue Mar 03 13:04:49 PST 2020

OPERATING LIFE TEST					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (+125°C) <sup>1</sup>	No. of FAILURES <sub>2,3</sub>
BGA 06X06	154	1748	1748	154	0
BGA 16X16	462	1452	1604	462	0
Totals	616	-	-	616	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) <sup>4</sup>	No. of FAILURES
BGA 06X06	459	0000	1813	1549	0
BGA 15x22	435	1739	1802	1464	0
BGA 16X16	1495	1452	1840	4400	0
Totals	2,389	-	-	7,413	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) <sup>5</sup>	No. of FAILURES
BGA 06X06	459	0000	1813	1549	0
BGA 15x22	435	1739	1802	1464	0
BGA 16X16	1495	1452	1840	4400	0
Totals	2,389	-	-	7,413	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 06X06	319	0000	1813	638	0
BGA 15x22	307	1739	1802	537	0
BGA 16X16	1215	1452	1840	1602	0
Totals	1,841	-	-	2,777	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 06X06	216	0000	1751	316	0
BGA 15x22	288	1739	1802	576	0
BGA 16X16	1076	1452	1840	1533	0
Totals	1,580	-	-	2,425	0

(1) Assumes Activation Energy = 1.0 Electron Volts  
 (2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =2.98 FITS  
 (3) Mean Time Between Failure in Years = 38359  
 (4) Assumes 20X Acceleration from 85 °C to +130 °C  
 (5) 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

# Reliability Data Report

## Report Number: R583

Report generated on: Tue Mar 03 13:04:49 PST 2020

<b>THERMAL SHOCK FROM -65 TO 150 DEG C</b>					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	No. of FAILURES
BGA 16X16	45	1651	1651	45	0
Totals	45	-	-	45	0
<b>HIGH TEMPERATURE BAKE AT 150 DEG C</b>					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
BGA 06X06	204	0000	1751	261	0
BGA 15x22	231	1739	1802	462	0
BGA 16X16	706	1452	1840	1630	0
Totals	1,141	-	-	2,353	0