



# Reliability Data Report

## Product Family R303

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LT1300/01/02/03/04/05/06/07/08/09/10

LT1610/14/15/16/17/18/83

LT1738 LT1930/31/32/34/35/36/37/76/77

LT3462/63/66/68/70/73/74/76/77 LT3501/10

LT3782

# Reliability Data Report

## Report Number: R303

Report generated on: Wed Sep 19 10:10:07 PDT 2012

OPERATING LIFE TEST					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (125°C) <sup>1</sup>	No. of FAILURES <sup>2,3</sup>
SIDEBRAZE	77	9613	9613	38	0
QFN/DFN	819	0421	1019	1714	0
SSOP/TSSOP	1606	0040	1209	2125	0
PLASTIC DIP	233	9312	9513	232	0
SOIC/SOT/MSOP	2256	9519	1201	2325	0
Totals	4,991	-	-	6,434	0
HIGHLY ACCELERATED STRESS TEST AT +131 DEG C / 85% RH					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS (+85°C) <sup>4</sup>	No. of FAILURES
SOIC/SOT/MSOP	205	9426	0340	319	0
Totals	205	-	-	319	0
PRESSURE COOKER TEST AT 15 PSIG , +121 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS	No. of FAILURES
QFN/DFN	4994	0112	1125	578	0
SSOP/TSSOP	17287	9933	1124	1113	0
PLASTIC DIP	1342	9516	9845	346	0
SOIC/SOT/MSOP	52845	9501	1123	4607	0
Totals	76,468	-	-	6,644	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	5411	0112	1129	1850	0
SSOP/TSSOP	17842	9445	1124	3875	0
SOIC/SOT/MSOP	67609	9417	1123	14287	0
PLASTIC DIP	250	9428	0049	25	0
Totals	91,112	-	-	20,037	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	5270	0112	1119	1436	0
SSOP/TSSOP	17994	9933	1124	3539	0
PLASTIC DIP	190	9417	9845	96	0
SOIC/SOT/MSOP	43765	9417	1123	11721	0
Totals	67,219	-	-	16,792	0

(1) Assumes Activation Energy = 1.0 Electron Volts

(2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =0.28 FITS

(3) Mean Time Between Failure in Years = 400652.25

(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 Preconditioning



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<b>HIGH TEMPERATURE BAKE AT 150 DEG C</b>					
<b>PACKAGE TYPE</b>	<b>SAMPLE SIZE</b>	<b>OLDEST DATE CODE</b>	<b>NEWEST DATE CODE</b>	<b>K DEVICE HOURS</b>	<b>No. of FAILURES</b>
QFN/DFN	50	0826	0826	50	0
Totals	50	-	-	50	0

  

<b>HIGH TEMPERATURE BAKE AT 175 DEG C</b>					
<b>PACKAGE TYPE</b>	<b>SAMPLE SIZE</b>	<b>OLDEST DATE CODE</b>	<b>NEWEST DATE CODE</b>	<b>K DEVICE HOURS</b>	<b>No. of FAILURES</b>
QFN/DFN	233	1127	1129	233	0
SSOP/TSSOP	150	1004	1004	150	0
SOIC/SOT/MSOP	1415	0836	1018	1315	0
Totals	1,798	-	-	1,698	0