

RELIABILITY REPORT





NOW PART OF



Reliability Data Report

Product Family R526

LTC3103 \ LTC3104 \ LTC3111 \ LTC3112 \ LTC3114 \
LTC3115 \ LTC3118 \ LTC3121 \ LTC3122 \ LTC3124 \
LTC3129 \ LTC3245 \ LTC3255 \ LTC3256 \ LTC3260 \
LTC3261 \ LTC3265 \ LTC3355 \ LTC3372 \ LTC3388 \
LTC3582 \ LTC3600 \ LTC3602 \ LTC3603 \ LTC3618 \
LTC3623 \ LTC3630 \ LTC3631 \ LTC3632 \ LTC3637 \
LTC3638 \ LTC3639 \ LTC3640 \ LTC3641 \ LTC3642 \
LTC3646 \ LTC3647 \ LTC3649 \ LTC3676 \ LTC3769 \
LTC3774 \ LTC3775 \ LTC3779 \ LTC3784 \ LTC3786 \
LTC3787 \ LTC3788 \ LTC3789 \ LTC3790 \ LTC3807 \
LTC3829 \ LTC3833 \ LTC3838 \ LTC3839 \ LTC3850 \
LTC3851 \ LTC3852 \ LTC3853 \ LTC3854 \ LTC3855 \
LTC3856 \ LTC3857 \ LTC3858 \ LTC3859 \ LTC3862 \
LTC3863 \ LTC3864 \ LTC3865 \ LTC3866 \ LTC3867 \
LTC3868 \ LTC3869 \ LTC3870 \ LTC3871 \ LTC3874 \
LTC3875 \ LTC3876 \ LTC3877 \ LTC3878 \ LTC3879 \
LTC3880 \ LTC3882 \ LTC3883 \ LTC3884 \ LTC3886 \
LTC3887 \ LTC3890 \ LTC3891 \ LTC3892 \ LTC3895 \
LTC3896 \ LTC3897 \ LTC3899 \ LTC7101 \ LTC7103
 \ LTC7801 \ LTC7804 \ LTC7810 \ LTC7813 \
LTC7815 \ LTC7821 \ LTC7841 \ LTC7852 \ LTC7862

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Report Number: R526

Report generated on: Thu Apr 23 09:39:49 PDT 2020

OPERATING LIFE TEST					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (+125°C) ¹	No. of FAILURES _{2,3}
SSOP/TSSOP	19318	0645	1645	9010	0
QFP	308	1314	1638	1028	0
SOIC/MSOP	3542	0816	1626	8512	0
QFN/DFN	32530	0816	1717	18433	0
Totals	55,698	-	-	36,983	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
SSOP/TSSOP	26466	0911	1716	55653	0
QFP	308	1315	1432	1182	0
SOIC/MSOP	3822	1040	1644	9895	0
QFN/DFN	13934	1043	1709	30520	0
Totals	44,530	-	-	97,250	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) ⁵	No. of FAILURES
SSOP/TSSOP	26466	0911	1716	55653	0
QFP	308	1315	1432	1182	0
SOIC/MSOP	3822	1040	1644	9895	0
QFN/DFN	13934	1043	1709	30520	0
Totals	44,530	-	-	97,250	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) ⁶	No. of FAILURES
SSOP/TSSOP	26466	0911	1716	55653	0
QFP	308	1315	1432	1182	0
SOIC/MSOP	3822	1040	1644	9895	0
QFN/DFN	13934	1043	1709	30520	0
Totals	44,530	-	-	97,250	0

(1) Assumes Activation Energy = 0.7 Electron Volts
 (2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =0.32 FITS
 (3) Mean Time Between Failure in Years = 356298.62
 (4) Assumes 20X Acceleration from 85 °C to +130 °C
 (5) Assumes 20X Acceleration from 85 °C to +130 °C
 (6) 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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PRESSURE COOKER TEST AT 15 PSIG , +121 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
SSOP/TSSOP	125514	0652	1716	4086	0
QFP	2218	1311	1649	413	0
SOIC/MSOP	34560	0908	1709	3452	0
QFN/DFN	107016	0649	1716	4815	0
Totals	269,308	-	-	12,766	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
SSOP/TSSOP	124026	0652	1716	17837	0
QFP	958	1311	1649	1249	0
SOIC/MSOP	35240	0908	1709	15393	0
QFN/DFN	117246	0639	1716	23615	0
Totals	277,470	-	-	58,094	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
QFN/DFN	300	1406	1406	302	0
Totals	300	-	-	302	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
SSOP/TSSOP	126092	0652	1716	17059	0
QFP	504	1311	1649	325	0
SOIC/MSOP	31404	0908	1709	10567	0
QFN/DFN	106748	0652	1716	20247	0
Totals	264,748	-	-	48,198	0
HIGH TEMPERATURE BAKE AT 125 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
QFN/DFN	396	1413	1521	396	0
QFP	100	1432	1432	100	0
Totals	496	-	-	496	0

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HIGH TEMPERATURE BAKE AT 150 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
QFN/DFN	12624	0726	1632	12124	0
SSOP/TSSOP	1380	0812	1018	1307	0
QFP	388	1311	1613	314	0
SOIC/MSOP	1668	0905	1336	2104	0
Totals	16,060	-	-	15,849	0
HIGH TEMPERATURE BAKE AT 175 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
QFN/DFN	10214	0726	1549	5748	0
SSOP/TSSOP	3808	0812	1714	3229	0
QFP	308	1311	1315	308	0
SOIC/MSOP	5008	0908	1619	4919	0
Totals	19,338	-	-	14,204	0