



Reliability Data Report Product Family R410

LTC1623 / LTC1688 / LTC1689 /
LTC4303 / LTC4304 / LTC4305 /
LTC4306

Reliability Data Report

Report Number: R410

Report generated on: Wed Jun 04 14:22:10 PDT 2014

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	80	0533	0533	80	0
SOIC/SOT/MSOP	129	9845	0533	134	0
Totals	209	-	-	214	0

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
QFN/DFN	300	0721	1307	7	0
SSOP/TSSOP	1199	0649	1116	52	0
SOIC/SOT/MSOP	1604	9847	1320	60	0
Totals	3,103	-	-	119	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	250	0721	1307	25	0
SSOP/TSSOP	150	0808	1116	15	0
SOIC/SOT/MSOP	1098	9847	1320	109	0
Totals	1,498	-	-	149	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	248	0721	1307	24	0
SSOP/TSSOP	197	0813	1116	19	0
SOIC/SOT/MSOP	1149	9847	1320	114	0
Totals	1,594	-	-	157	0

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	100	1225	1225	75	0
Totals	100	-	-	75	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =55.37 FITS

(3) Mean Time Between Failure in Years = 2061.7

Note: 1 FIT = 1 Failure in One Billion Hours.

Note 2: HAST, Temp Cycle & Thermal Shock are subjected to J-STD-020 MSL1 Preconditioning