

## RELIABILITY DATA G311E QUALIFICATION DATA

**7/30/2019**

**• J-STD-020 MSL 3 PRECONDITIONING: 192h +30°C/60%R.H. SOAK, 3x REFLOW AT +260°C PEAK**

DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE		NUMBER OF FAILURES
LTM8024	311	1843	1843		0
LTM8002	522	1839	1839		0
LTC2975	300	1749	1749		0
LTC3315	384	1821	1821		0
LTM4622	300	1921	1921		0
	1,817	1749	1921		0

**• J-STD-020 MSL 3 PRECONDITIONING: 192h +30°C/60%R.H. SOAK, 3x REFLOW AT +250°C PEAK**

DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE		NUMBER OF FAILURES
LTM8024	311	1843	1843		0
LTM8006	616	1848	1851		0
LTM4638	893	1751	1813		0
LTM4626	413	1803	1813		0
	2,233	1751	1851		0

**• J-STD-020 MSL 3 PRECONDITIONING: 192h +30°C/60%R.H. SOAK, 3x REFLOW AT +245°C PEAK**

DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE		NUMBER OF FAILURES
LTM4630	241	1846	1846		0
LTM4642	299	1903	1903		0
LTM4650	241	1846	1846		0
LTM4664	826	1811	1832		0
LTM4680	786	1806	1829		0
LTM4700	974	1739	1802		0
LTM4644	154	1906	1906		0
LTM4675	300	1903	1903		0
LTM4676	399	1903	1903		0
	4,220	1739	1906		0

**• J-STD-020 MSL 4 PRECONDITIONING: 96h +30°C/60%R.H. SOAK, 3x REFLOW AT +245°C PEAK**

DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE		NUMBER OF FAILURES
LTM4634	400	1813	1813		0
LTM4637	400	1903	1903		0
LTM4677	400	1903	1903		0
LTM4678	261	1840	1840		0
	1,461	1813	1903		0

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**• HIGH TEMPERATURE STORAGE +150°C**

DEVICE	SAMPLE	OLDEST	NEWEST	K DEVICE HOURS AT	NUMBER OF
LTM8024	77	1843	1843	77.00	0
LTM8002	154	1839	1839	308.00	0
LTM8006	154	1848	1848	231.00	0
LTM4626	50	1803	1803	100.00	0
LTM4634	50	1813	1813	25.00	0
LTM4638	154	1751	1751	154.00	0
LTM4642	49	1903	1903	49.00	0
LTM4664	109	1811	1832	190.50	0
LTM4677	50	1903	1903	75.00	0
LTM4678	50	1840	1840	75.00	0
LTM4700	231	1739	1802	462.00	0
LTM4680	153	1806	1829	306.00	0
LTM2975	77	1749	1749	77.00	0
LTC3315	48	1821	1821	96.00	0
LTM4637	50	1903	1903	100.00	0
LTM4676	50	1903	1903	75.00	0
	1,506	1739	1903	2,400.50	0

**• TEMP CYCLE FROM -55°C to +125°C <sup>(1)</sup>**

DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
LTM8024	77	1843	1843	77.00	0
LTC2975	77	1749	1749	77.00	0
LTM4626	77	1803	1803	154.00	0
LTM4630	80	1846	1846	120.00	0
LTM4634	84	1813	1813	84.00	0
LTM4638	242	1751	1813	404.00	0
LTM4642	85	1903	1903	42.50	0
LTM4650	80	1846	1846	40.00	0
LTM4664	264	1811	1832	337.00	0
LTM4677	100	1903	1903	200.00	0
LTM4678	77	1840	1840	38.50	0
LTM4680	239	1806	1829	319.00	0
LTM4700	307	1739	1802	537.00	0
LTM4622	100	1921	1921	100.00	0
LTM4675	85	1903	1903	170.00	0
LTM4637	85	1903	1903	85.00	0
LTM4676	85	1903	1903	170.00	0
	2,144	1739	1921	2,955.00	0

**• TEMP CYCLE FROM -65°C to +150°C <sup>(1)</sup>**

DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
LTM8006	154	1848	1851	154.00	0
LTM8002	154	1839	1839	154.00	0
LTC3315	73	1821	1821	73.00	0
	381	1821	1851	381.00	0

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**• THERMAL SHOCK FROM -55°C to +125°C <sup>(1)</sup>**

DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
LTM8024	77	1843	1843	77.00	0
LTC2975	77	1749	1749	77.00	0
LTM4626	77	1803	1803	77.00	0
LTM4630	80	1846	1903	40.00	0
LTM4634	85	1813	1813	42.50	0
LTM4638	219	1751	1813	319.00	0
LTM4642	100	1903	1903	100.00	0
LTM4650	80	1846	1846	40.00	0
LTM4664	235	1811	1832	305.00	0
LTM4677	99	1903	1903	198.00	0
LTM4678	57	1840	1840	114.00	0
LTM4680	216	1806	1829	361.00	0
LTM4700	290	1739	1802	580.00	0
LTM4622	100	1921	1921	100.00	0
LTM4675	85	1903	1903	170.00	0
LTM4676	85	1903	1903	170.00	0
	1,962	1739	1921	2,770.50	0

**• THERMAL SHOCK FROM -65°C to +150°C <sup>(1)</sup>**

DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
LTM8006	154	1848	1848	308.00	0
LTM8002	154	1839	1839	308.00	0
LTC3315	70	1821	1821	70.00	0
	378	1821	1848	686.00	0

**• UNBIASED HIGHLY ACCELERATED STRESS TEST +110°C/85% R.H. <sup>(1)</sup>**

DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS AT +130°C	NUMBER OF FAILURES
LTM8024	76	1843	1843	14.59	0
LTM4630	80	1846	1903	7.68	0
LTM4634	99	1813	1813	19.01	0
LTM4642	100	1903	1903	19.20	0
LTM4650	80	1846	1846	7.68	0
LTM4677	100	1903	1903	19.20	0
	535	1813	1903	87.36	0

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**• UNBIASED HIGHLY ACCELERATED STRESS TEST +130°C/85% R.H. <sup>(1)</sup>**

DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS AT +130°C	NUMBER OF FAILURES
LTM4626	77	1803	1803	14.78	0
LTM4638	217	1751	1813	35.90	0
LTM4664	254	1811	1832	39.17	0
LTM4678	77	1840	1840	7.39	0
LTM4680	236	1806	1829	45.31	0
LTM4700	279	1739	1802	46.18	0
LTM8002	154	1839	1839	29.57	0
LTM8006	154	1848	1848	29.57	0
LTC2975	77	1749	1749	14.78	0
LTC3315	77	1821	1821	14.78	0
LTM4622	100	1921	1921	9.60	0
LTM4675	100	1903	1903	9.60	0
LTM4637	100	1903	1903	9.60	0
LTM4676	100	1903	1903	19.20	0
	2,002	1739	1921	325.44	0

**• BIASED HIGHLY ACCELERATED STRESS TEST +130°C/85% R.H. <sup>(1)</sup>**

DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS AT +130°C	NUMBER OF FAILURES
LTM8024	29	1843	1843	2.78	0
LTM8024	60	1839	1839	5.76	0
LTM4626	56	1813	1813	5.38	0
LTM4638	169	1751	1813	25.92	0
LTM4664	51	1811	1832	7.49	0
LTM4680	59	1806	1829	8.54	0
LTM4700	155	1739	1802	26.88	0
LTC2975	69	1749	1749	6.62	0
LTC3315	76	1821	1821	7.30	0
	724	1739	1843	96.67	0

(1) Environmental stress are preceded by J-STD-020 Preconditioning