

**6/25/2020**



**RELIABILITY MONITOR REPORT  
FOR**

**WLP Package**

**MAXIM INTEGRATED**

**160 RIO ROBLES  
SAN JOSE, CA 95134**

**This Report was prepared by  
MAXIM INTEGRATED Reliability Engineering**

**Summary:**

The data in the tables that follow was generated as the result of an on-going Package Reliability Monitor. The specific assemblies included in this package monitor are:

ASSY SITE	PINS	PACKAGE		
ASE Chung-Li	6	TWLP (Pb-Free)	ASE Chung-Li	9 TWLP (Pb-Free)
ASE Chung-Li	15	TWLP (Pb-Free)	ASE Chung-Li	28 TWLP (Pb-Free)
ASE Chung-Li	36	TWLP (Pb-Free)	ASE Chung-Li	49 TWLP (Pb-Free)
ASE Chung-Li	9	WLP (Pb-Free)	ASE Chung-Li	12 WLP (Pb-Free)
ASE Chung-Li	20	WLP (Pb-Free)	ASE Chung-Li	36 WLP (Pb-Free)
ASE Chung-Li	64	WLP (Pb-Free)	ASE Chung-Li	86 WLP (Pb-Free)
ASE Chung-Li	132	WLP (Pb-Free)	ASE Chung-Li	144 WLP (Pb-Free)
ASE Kaoshiung	4	TWLP (Pb-Free)	ASE Kaoshiung	6 TWLP (Pb-Free)
ASE Kaoshiung	9	TWLP (Pb-Free)	ASE Kaoshiung	12 TWLP (Pb-Free)
ASE Kaoshiung	16	TWLP (Pb-Free)	ASE Kaoshiung	28 TWLP (Pb-Free)
ASE Kaoshiung	30	TWLP (Pb-Free)	ASE Kaoshiung	36 TWLP (Pb-Free)
ASE Kaoshiung	4	UTWLP (Pb-Free)	ASE Kaoshiung	6 UTWLP (Pb-Free)
ASE Kaoshiung	9	WLP (Pb-Free)	ASE Kaoshiung	12 WLP (Pb-Free)
ASE Kaoshiung	15	WLP (Pb-Free)	ASE Kaoshiung	30 WLP (Pb-Free)
ASE Kaoshiung	35	WLP (Pb-Free)	ASE Kaoshiung	36 WLP (Pb-Free)
ASE Kaoshiung	49	WLP (Pb-Free)	ASE Kaoshiung	64 WLP (Pb-Free)
ASE Kaoshiung	99	WLP (Pb-Free)	ASE Kaoshiung	132 WLP (Pb-Free)
JCAP	6	TWLP (Pb-Free)	JCAP	9 TWLP (Pb-Free)
JCAP	12	TWLP (Pb-Free)	JCAP	16 TWLP (Pb-Free)
JCAP	28	TWLP (Pb-Free)	JCAP	36 TWLP (Pb-Free)
JCAP	6	UTWLP (Pb-Free)	JCAP	WLP (Pb-Free)
JCAP	12	WLP (Pb-Free)	JCAP	16 WLP (Pb-Free)
JCAP	20	WLP (Pb-Free)	JCAP	36 WLP (Pb-Free)
JCAP	49	WLP (Pb-Free)	JCAP	64 WLP (Pb-Free)
JCAP	99	WLP (Pb-Free)	JCAP	156 WLP (Pb-Free)
UTL (NSEB) UTAC	6	UTWLP (Pb-Free)		

The calculated failure rate for this assembly is:

**FAILURE RATE: MTTF (YRS): 580274 FITS: 0.2**

The parameters used to calculate this failure rate are as follows:

**Cf: 60% Ea: 0.7 Tu: 25 °C**

The reliability data follows. A the start of this data is a description of the assembly vehicle used to generate this reliability data. The next section is the detailed reliability data for each stress. The reliability data section includes the latest data available. This report covers data between 1/1/2020 and 3/31/2020

**Assembly Information:**

Package Type: TWLP (Pb-Free)

Date Code Range: 1637 to 1949

**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE		MAX86171ENI+	125°C	1000 HRS	39	0	
HIGH TEMP OP LIFE		MAX86171ENI+	125°C	1000 HRS	40	0	
HIGH TEMP OP LIFE		MAX98728BENX+TC SB	125°C	1000 HRS	32	0	

HIGH TEMP OP LIFE		MAX40009ANT+	125°C	1000 HRS	80	0
HIGH TEMP OP LIFE		MAX20323FENC+T	125°C	1000 HRS	80	0
HIGH TEMP OP LIFE	1840	MAX11261ENX+T	125°C	1000 HRS	77	0
HIGH TEMP OP LIFE	1843	MAX40100ANT+T	125°C	1000 HRS	80	0
HIGH TEMP OP LIFE	1843	MAX40100ANT+T	125°C	1000 HRS	80	0
HIGH TEMP OP LIFE	1844	MAX98709ENI+T	125°C	192 HRS	80	0
HIGH TEMP OP LIFE	1849	MAX11261ENX+T	125°C	1000 HRS	80	0
HIGH TEMP OP LIFE	1849	MAX20336ENT+T	125°C	192 HRS	79	0
HIGH TEMP OP LIFE	1905	MAX20333ENL+T	125°C	192 HRS	80	0
HIGH TEMP OP LIFE	1907	MAX14689EWL+T	125°C	1000 HRS	80	0
HIGH TEMP OP LIFE	1908	MAX11261ENX+T	125°C	1000 HRS	80	0
HIGH TEMP OP LIFE	1908	MAX40100ANT+T	125°C	500 HRS	80	0
HIGH TEMP OP LIFE	1908	MAX17270ENE+T	125°C	192 HRS	79	0
HIGH TEMP OP LIFE	1908	MAX40100ANT+TG7	125°C	96 HRS	80	0
HIGH TEMP OP LIFE	1910	MAX77654AENVN+T	125°C	1000 HRS	33	0
HIGH TEMP OP LIFE	1910	MAX77654AENVN+T	125°C	192 HRS	47	0
HIGH TEMP OP LIFE	1917	MAX98709BENI+	125°C	1000 HRS	79	0
HIGH TEMP OP LIFE	1919	MAX44281OANS+T	125°C	1000 HRS	80	0
HIGH TEMP OP LIFE	1933	MAX98360BENL+T	125°C	1000 HRS	80	0
HIGH TEMP OP LIFE	1941	MAX40009ANT+	125°C	1000 HRS	80	0
HIGH TEMP OP LIFE	1942	MAX98360BENL+T	125°C	1000 HRS	80	0
HIGH TEMP OP LIFE	1946	MAX98360BENL+T	125°C	1000 HRS	80	0
<b>Total:</b>						<b>0</b>

#### PACKAGE TESTS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
PHYSICAL DIMENSION	1919	MAX98360BENL+T	JESD22-B100	1 PASS	20	0	
CONVECTION REFLOW	1919	MAX44281OANS+T		3 PASS	352	0	
PHYSICAL DIMENSION	1919	MAX44281OANS+T	JESD22-B100	1 PASS	20	0	
PHYSICAL DIMENSION	1920	MAX98360BENL+T	JESD22-B100	1 PASS	20	0	
PHYSICAL DIMENSION	1923	MAX98360BENL+T	JESD22-B100	1 PASS	20	0	
PHYSICAL DIMENSION	1948	MAX44290ANT+	JESD22-B100	3	20	0	
<b>Total:</b>						<b>0</b>	

#### STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE		MAX86171ENI+	150°C	1000 HRS	78	0	
STORAGE LIFE		MAX40009ANT+	150°C	1000 HRS	80	0	
STORAGE LIFE		MAX20323FENC+T	150°C	1000 HRS	80	0	

STORAGE LIFE	1840	MAX11261ENX+T	150°C	1000	HRS	80	0
STORAGE LIFE	1843	MAX40100ANT+T	150°C	500	HRS	80	0
STORAGE LIFE	1843	MAX40100ANT+T	150°C	500	HRS	80	0
STORAGE LIFE	1844	MAX98709ENI+T	150°C	1000	HRS	80	0
STORAGE LIFE	1849	MAX11261ENX+T	150°C	1000	HRS	80	0
STORAGE LIFE	1901	MAX98709ENI+T	150°C	1000	HRS	80	0
STORAGE LIFE	1908	MAX11261ENX+T	150°C	1000	HRS	80	0
STORAGE LIFE	1908	MAX40100ANT+T	150°C	1000	HRS	80	0
STORAGE LIFE	1908	MAX17270ENE+T	150°C	1000	HRS	80	0
STORAGE LIFE	1908	MAX40100ANT+TG7	150°C	1000	HRS	80	0
STORAGE LIFE	1912	MAX34417ENE+	150°C	1000	HRS	80	0
STORAGE LIFE	1913	MAX17270ENE+T	150°C	1000	HRS	80	0
STORAGE LIFE	1917	MAX17270ENE+T	150°C	1000	HRS	80	0
STORAGE LIFE	1919	MAX98360BENL+T	150°C	1000	HRS	80	0
STORAGE LIFE	1919	MAX44281OANS+T	150°C	1000	HRS	80	0
STORAGE LIFE	1920	MAX98360BENL+T	150°C	1000	HRS	80	0
STORAGE LIFE	1923	MAX98360BENL+T	150°C	1000	HRS	80	0
STORAGE LIFE	1933	MAX98360BENL+T	150°C	1000	HRS	80	0
STORAGE LIFE	1941	MAX40009ANT+	150°C	1000	HRS	80	0
STORAGE LIFE	1942	MAX98360BENL+T	150°C	1000	HRS	80	0
STORAGE LIFE	1946	MAX98360BENL+T	150°C	1000	HRS	80	0
<b>Total:</b>						<b>0</b>	<b>0</b>

## TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE, 15' RAMP, 15' DWELL		MAX98512BEWX+	-40C TO +125C (Condition G)	1000	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL		MAX98512BEWX+	-40C TO +125C (Condition G)	1000	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL		MAX98512BEWX+	-40C TO +125C (Condition G)	500	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1840	MAX11261ENX+T	-40C TO +125C (Condition G)	850	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1844	MAX98709ENI+T	-65C TO +150C (Condition C)	1000	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1846	MAX44284HANT+TG 7	-40C TO +125C (Condition G)	100	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1848	MAX44284HANT+TG 7	-40C TO +125C (Condition G)	100	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1848	MAX44284HANT+TG 7	-65C TO +150C (Condition C)	100	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1901	MAX98709ENI+T	-65C TO +150C (Condition C)	1000	CYS	80	0

TEMP CYCLE, 15' RAMP, 15' DWELL	1901	MAX98709ENI+T	-40C TO +125C (Condition G)	500	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1907	MAX14689EWL+T	-65C TO +150C (Condition C)	1000	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1908	MAX40100ANT+T	-65C TO +150C (Condition C)	850	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1908	MAX17270ENE+T	-65C TO +150C (Condition C)	1000	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1908	MAX40100ANT+TG7	-65C TO +150C (Condition C)	500	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1917	MAX17270ENE+T	-65C TO +150C (Condition C)	1000	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1919	MAX98360BENL+T	-40C TO +125C (Condition G)	850	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1919	MAX44281OANS+T	-40C TO +125C (Condition G)	850	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1920	MAX98360BENL+T	-40C TO +125C (Condition G)	850	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1923	MAX98360BENL+T	-65C TO +150C (Condition C)	1000	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1933	MAX98360BENL+T	-40C TO +125C (Condition G)	1000	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1942	MAX98360BENL+T	-40C TO +125C (Condition G)	1000	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1942	MAX11291ENX+TCL 6	-40C TO +125C (Condition G)	500	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1944	MAX98709BENI+	-40C TO +125C (Condition G)	500	CYS	79	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1946	MAX98360BENL+T	-40C TO +125C (Condition G)	1000	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1947	MAX98709BENI+	-40C TO +125C (Condition G)	500	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1948	MAX11291ENX+TCL 6	-40C TO +125C (Condition G)	500	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1948	MAX44290ANT+	-40C TO +125C (Condition G)	500	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1948	MAX98709BENI+	-40C TO +125C (Condition G)	500	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1949	MAX11291ENX+TCL 6	-40C TO +125C (Condition G)	500	CYS	80	0
<b>Total:</b>						<b>0</b>	<b>0</b>

#### TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
BIASED MOISTURE		MAX86171ENI+	130C, 85% R.H.	264	HRS	40	0
BIASED MOISTURE		MAX86171ENI+	130C, 85% R.H.	264	HRS	34	0
BIASED MOISTURE		MAX86171ENI+	130C, 85% R.H.	264	HRS	40	0
BIASED MOISTURE		MAX98512BEWX+	130C, 85% R.H.	264	HRS	70	0
BIASED MOISTURE		MAX98512BEWX+	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE		MAX98512BEWX+	130C, 85% R.H.	264	HRS	75	0

BIASED MOISTURE	1637	MAX40009ANT+	130C, 85% R.H.	96	HRS	80	0
BIASED MOISTURE	1840	MAX11261ENX+T	85 C/85% R.H.	1000	HRS	80	0
BIASED MOISTURE	1844	MAX98709ENI+T	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1901	MAX98709ENI+T	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1901	MAX98709ENI+T	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1907	MAX14689EWL+T	130C, 85% R.H.	96	HRS	80	0
BIASED MOISTURE	1908	MAX40100ANT+T	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1908	MAX17270ENE+T	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1908	MAX40100ANT+TG7	130C, 85% R.H.	1000	HRS	80	0
BIASED MOISTURE	1915	MAX98709ENI+T	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1917	MAX17270ENE+T	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1919	MAX98360BENL+T	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1919	MAX44281OANS+T	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1920	MAX98360BENL+T	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1923	MAX17270ENE+T	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1923	MAX98360BENL+T	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1924	MAX17270ENE+T	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1937	MAX44290ANT+	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1937	MAX44290ANT+	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1937	MAX44290ANT+	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1942	MAX98360BENL+T	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1942	MAX11291ENX+TCL 6	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1946	MAX98360BENL+T	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1948	MAX11291ENX+TCL 6	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1948	MAX44290ANT+	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1949	MAX11291ENX+TCL 6	130C, 85% R.H.	264	HRS	80	0
<b>Total:</b>						<b>0</b>	

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### UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
MOISTURE SOAK		MAX86171ENI+	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1637	MAX40009ANT+	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1827	MAX20323FENC+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1832	MAX44284HANT+TG 7	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1842	MAX44284HANT+TG 7	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1844	MAX98709ENI+T	130C, 85% R.H.	96	HRS	80	0

MOISTURE SOAK	1846	MAX44284HANT+TG 7	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1848	MAX44284HANT+TG 7	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1848	MAX44284HANT+TG 7	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1901	MAX98709ENI+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1901	MAX98709ENI+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1908	MAX40100ANT+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1908	MAX17270ENE+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1917	MAX17270ENE+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1919	MAX98360BENL+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1919	MAX44281OANS+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1920	MAX98360BENL+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1923	MAX17270ENE+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1923	MAX98360BENL+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1924	MAX17270ENE+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1942	MAX98360BENL+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1942	MAX98726BENJ+TC NF	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1942	MAX11291ENX+TCL 6	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1944	MAX98709BENI+	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1947	MAX98709BENI+	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1948	MAX11291ENX+TCL 6	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1948	MAX44290ANT+	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1948	MAX98709BENI+	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1949	MAX11291ENX+TCL 6	130C, 85% R.H.	96	HRS	80	0
<b>Total:</b>						<b>0</b>	<b>0</b>

### Assembly Information:

Package Type: UTWLP (Pb-Free)  
Date Code Range: 1850 to 1940

### OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE		MAX31875R2TZS+T	125°C	1000 HRS	80	0	
<b>Total:</b>						<b>0</b>	

### TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE, 15' RAMP, 15' DWELL	1850	MAX44284FAZT+	-40C TO +125C (Condition G)	1000	CYS	80	0

TEMP CYCLE, 5' RAMP, 10' DWELL	1851	MAX44284FAZT+	-40C TO +125C (Condition G)	850	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1904	MAX44284FAZT+	-40C TO +125C (Condition G)	1000	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1904	MAX44284FAZT+TG 7	-65C TO +150C (Condition C)	1000	CYS	77	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1904	MAX44284FAZT+TG 7	-65C TO +150C (Condition C)	100	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1904	MAX44284FAZT+TG 7	-65C TO +150C (Condition C)	100	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1907	MAX44284FAZT+TG 7	-65C TO +150C (Condition C)	1000	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1916	MAX44284FAZT+TG 7	-65C TO +150C (Condition C)	1000	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1916	MAX44284FAZT+TG 7	-65C TO +150C (Condition C)	100	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1920	MAX44284FAZT+TG 7	-65C TO +150C (Condition C)	100	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1923	MAX44284FAZT+TG 7	-65C TO +150C (Condition C)	100	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1923	MAX44284FAZT+TG 7	-65C TO +150C (Condition C)	100	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1933	MAX44284FAZT+TG 7	-40C TO +125C (Condition G)	100	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1933	MAX44284FAZT+TG 7	-40C TO +125C (Condition G)	100	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1934	MAX44284FAZT+TG 7	-40C TO +125C (Condition G)	100	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1934	MAX44284FAZT+TG 7	-40C TO +125C (Condition G)	100	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1939	MAX44284FAZT+TG 7	-40C TO +125C (Condition G)	100	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1940	MAX44284FAZT+TG 7	-40C TO +125C (Condition G)	100	CYS	80	0
<b>Total:</b>						<b>0</b>	<b>0</b>

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#### TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
BIASED MOISTURE		MAX44284FAZT+TG 7	130C, 85% R.H.	264	HRS	77	0
BIASED MOISTURE		90-P1F1X+04D	130C, 85% R.H.	96	HRS	80	0
BIASED MOISTURE	1850	MAX44284FAZT+	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1904	MAX44284FAZT+	130C, 85% R.H.	264	HRS	77	0
BIASED MOISTURE	1907	MAX44284FAZT+TG 7	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1916	MAX44284FAZT+TG 7	130C, 85% R.H.	264	HRS	80	0
<b>Total:</b>						<b>0</b>	<b>0</b>

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#### UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
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MOISTURE SOAK		MAX44284FAZT+	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK		MAX44284FAZT+TG 7	130C, 85% R.H.	96	HRS	77	0
MOISTURE SOAK	1850	MAX44284FAZT+	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1851	MAX44284FAZT+	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1904	MAX44284FAZT+TG 7	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1907	MAX44284FAZT+TG 7	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1916	MAX44284FAZT+TG 7	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1916	MAX44284FAZT+TG 7	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1920	MAX44284FAZT+TG 7	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1923	MAX44284FAZT+TG 7	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1933	MAX44284FAZT+TG 7	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1933	MAX44284FAZT+TG 7	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1934	MAX44284FAZT+TG 7	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1939	MAX44284FAZT+TG 7	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1940	MAX44284FAZT+TG 7	130C, 85% R.H.	96	HRS	80	0
<b>Total:</b>						<b>0</b>	<b>0</b>

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### Assembly Information:

Package Type: WLP (Pb-Free)  
Date Code Range: 1826 to 1951

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### OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE		MAX17302	125°C	1000 HRS	79	0	
HIGH TEMP OP LIFE		MAX77501EWW+T	125°C	500 HRS	48	0	
HIGH TEMP OP LIFE		MAX20340EWL+	125°C	192 HRS	80	0	
HIGH TEMP OP LIFE	1826	MAX77277CEWB+T G7	125°C	192 HRS	20	0	
HIGH TEMP OP LIFE	1830	MAX77503EEWC+T	125°C	1000 HRS	73	0	
HIGH TEMP OP LIFE	1833	MAX77705CEWN+T	125°C	500 HRS	80	0	
HIGH TEMP OP LIFE	1847	MAX77503EEWC+T	125°C	1000 HRS	80	0	
HIGH TEMP OP LIFE	1847	MAX98390EWX+T	125°C	192 HRS	47	0	
HIGH TEMP OP LIFE	1847	MAX98390EWX+T	125°C	192 HRS	33	0	
HIGH TEMP OP LIFE	1848	MAX77503EEWC+T	125°C	1000 HRS	63	0	
HIGH TEMP OP LIFE	1849	MAX77503EEWC+T	125°C	1000 HRS	80	0	

HIGH TEMP OP LIFE	1849	MAX77503EEWC+T	125°C	1000	HRS	80	0
HIGH TEMP OP LIFE	1850	MAX77705FEWN+T	125°C	1000	HRS	80	0
HIGH TEMP OP LIFE	1850	MAX77705FEWN+T	125°C	1000	HRS	20	0
HIGH TEMP OP LIFE	1850	MAX77705FEWN+T	125°C	1000	HRS	20	0
HIGH TEMP OP LIFE	1850	MAX77705FEWN+T	125°C	1000	HRS	20	0
HIGH TEMP OP LIFE	1850	MAX20334EWC+	125°C	1000	HRS	80	0
HIGH TEMP OP LIFE	1851	MAX20343BEWE+	125°C	1000	HRS	80	0
HIGH TEMP OP LIFE	1907	MAX77964EWJ+T	125°C	1000	HRS	80	0
HIGH TEMP OP LIFE	1910	MAX77964EWJ+T	125°C	1000	HRS	77	0
HIGH TEMP OP LIFE	1910	MAX31341BEWC+T	125°C	1000	HRS	80	0
HIGH TEMP OP LIFE	1911	MAX96945UGGE/V+	125°C	192	HRS	80	0
HIGH TEMP OP LIFE	1912	MAX77964EWJ+T	125°C	192	HRS	80	0
HIGH TEMP OP LIFE	1912	MAX77964EWJ+T	125°C	1000	HRS	80	0
HIGH TEMP OP LIFE	1912	MAX77964EWJ+T	125°C	1000	HRS	45	0
HIGH TEMP OP LIFE	1912	MAX77964EWJ+T	125°C	1000	HRS	47	0
HIGH TEMP OP LIFE	1912	MAX77964EWJ+T	125°C	1000	HRS	33	0
HIGH TEMP OP LIFE	1912	MAX77964EWJ+T	125°C	1000	HRS	33	0
HIGH TEMP OP LIFE	1912	MAX77827BEWC+T	125°C	192	HRS	48	0
HIGH TEMP OP LIFE	1920	MAX77825EWP+T	125°C	1000	HRS	79	0
HIGH TEMP OP LIFE	1928	MAX77964CEWJ+	125°C	1000	HRS	80	0
HIGH TEMP OP LIFE	1939	MAX77958EWW+	125°C	192	HRS	48	0
<b>Total:</b>						<b>0</b>	<b>0</b>

#### PACKAGE TESTS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
CONVECTION REFLOW		MAX77705CEWN+		3	PASS	13497	0
CONVECTION REFLOW	1830	MAX77503EEWC+T	260C +0/-5C	3	PASS	150	0
CONVECTION REFLOW	1835	MAX77503EEWC+T	260C +0/-5C	3	PASS	150	0
CONVECTION REFLOW	1848	MAX77503EEWC+T	260C +0/-5C	3	PASS	150	0
CONVECTION REFLOW	1907	MAX98512BEWX+T		3	PASS	320	0
CONVECTION REFLOW	1911	MAX96945UGGE/V+	260C +0/-5C	3	PASS	80	0
<b>Total:</b>						<b>0</b>	<b>0</b>

#### STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	1830	MAX77503EEWC+T	150°C	1000	HRS	80	0
STORAGE LIFE	1835	MAX77503EEWC+T	150°C	1000	HRS	80	0
STORAGE LIFE	1837	MAX77718EWC+T	150°C	500	HRS	79	0
STORAGE LIFE	1842	MAX98937EWX+T	150°C	1000	HRS	80	0
STORAGE LIFE	1847	MAX77503EEWC+T	150°C	1000	HRS	80	0

STORAGE LIFE	1848	MAX77503EEWC+T	150°C	1000	HRS	80	0
STORAGE LIFE	1849	MAX77503EEWC+T	150°C	1000	HRS	80	0
STORAGE LIFE	1850	MAX77705FEWN+T	150°C	500	HRS	80	0
STORAGE LIFE	1850	MAX77705FEWN+T	150°C	500	HRS	80	0
STORAGE LIFE	1907	MAX77964EWJ+T	150°C	1000	HRS	78	0
STORAGE LIFE	1907	MAX98512BEWX+T	150°C	1000	HRS	100	0
STORAGE LIFE	1910	MAX77964EWJ+T	150°C	1000	HRS	80	0
STORAGE LIFE	1920	MAX77825EWP+T	150°C	1000	HRS	80	0
STORAGE LIFE	1922	MAX77825EWP+T	150°C	1000	HRS	80	0
<b>Total:</b>						<b>0</b>	<b>0</b>

### TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE, 5' RAMP, 10' DWELL		MAX16604GFN+	-65C TO +150C (Condition C)	1000	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL		MAX16604GFN+	-65C TO +150C (Condition C)	1000	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL		MAX77511SEWB+	-40C TO +125C (Condition G)	500	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL		MAX77511SEWB+	-40C TO +125C (Condition G)	500	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL		MAX77812EWB+	-40C TO +125C (Condition G)	500	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL		MAX77843EWW+T	-65C TO +150C (Condition C)	500	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL		MAX77843EWW+T	-40C TO +125C (Condition G)	250	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL		MAX77511SEWB+	-65C TO +150C (Condition C)	1000	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL		MAX77511SEWB+	-40C TO +125C (Condition G)	500	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL		MAX77511SEWB+	-40C TO +125C (Condition G)	500	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL		MAX77705FEWN+T	-40C TO +125C (Condition G)	500	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL		MAX77705FEWN+T	-40C TO +125C (Condition G)	850	CYS	73	0
TEMP CYCLE, 15' RAMP, 15' DWELL		MAX77705FEWN+T	-40C TO +125C (Condition G)	850	CYS	75	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1830	MAX77503EEWC+T	-65C TO +150C (Condition C)	1000	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1835	MAX77503EEWC+T	-40C TO +125C (Condition G)	500	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1837	MAX77718EWC+T	-40C TO +125C (Condition G)	500	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1847	MAX77503EEWC+T	-65C TO +150C (Condition C)	1000	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1848	MAX77503EEWC+T	-40C TO +125C (Condition G)	500	CYS	80	0

TEMP CYCLE, 15' RAMP, 15' DWELL	1849	MAX77503EEWC+T	-40C TO +125C (Condition G)	500	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1849	MAX77503EEWC+T	-65C TO +150C (Condition C)	1000	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1907	MAX77964EWJ+T	-40C TO +125C (Condition G)	850	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1907	MAX98512BEWX+T	-65C TO +150C (Condition C)	500	CYS	84	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1910	MAX77964EWJ+T	-65C TO +150C (Condition C)	1000	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1912	MAX98357AEWL+T	-65C TO +150C (Condition C)	1000	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1920	MAX77825EWP+T	-65C TO +150C (Condition C)	1000	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1926	MAX77843EWW+T	-40C TO +125C (Condition G)	500	CYS	80	0
TEMP CYCLE, 15' RAMP, 15' DWELL	1927	MAX77843EWW+T	-40C TO +125C (Condition G)	1000	CYS	78	0
<b>Total:</b>						<b>0</b>	<b>0</b>

### TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
BIASED MOISTURE		MAX77711AEWB+	130C, 85% R.H.	96	HRS	77	0
BIASED MOISTURE		MAX77705FEWN+	130C, 85% R.H.	264	HRS	79	0
BIASED MOISTURE		MAX16604GFN+	130C, 85% R.H.	96	HRS	111	0
BIASED MOISTURE		MAX16604GFN+	130C, 85% R.H.	96	HRS	111	0
BIASED MOISTURE		MAX16604GFN+	130C, 85% R.H.	96	HRS	111	0
BIASED MOISTURE		MAX16604GFN+	130C, 85% R.H.	96	HRS	111	0
BIASED MOISTURE		MAX77511SEWB+	130C, 85% R.H.	264	HRS	45	0
BIASED MOISTURE		MAX77511SEWB+	130C, 85% R.H.	264	HRS	45	0
BIASED MOISTURE		MAX77812EWB+	130C, 85% R.H.	264	HRS	45	0
BIASED MOISTURE		MAX77843EWW+T	130C, 85% R.H.	264	HRS	48	0
BIASED MOISTURE		MAX77511SEWB+	130C, 85% R.H.	264	HRS	45	0
BIASED MOISTURE		MAX98357AEWL+T	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1848	MAX77503EEWC+T	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1849	MAX77503EEWC+T	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1849	MAX77503EEWC+T	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1907	MAX77964EWJ+T	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1907	MAX98512BEWX+	130C, 85% R.H.	264	HRS	73	0
BIASED MOISTURE	1907	MAX98512BEWX+	130C, 85% R.H.	264	HRS	75	0
BIASED MOISTURE	1907	MAX98512BEWX+	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1910	MAX77964EWJ+T	130C, 85% R.H.	264	HRS	80	0
BIASED MOISTURE	1912	MAX77964EWJ+T	130C, 85% R.H.	264	HRS	80	0

BIASED MOISTURE	1920	MAX77825EWP+T	130C, 85% R.H.	96	HRS	80	0
BIASED MOISTURE	1934	MAX14813EWX+	130C, 85% R.H.	264	HRS	68	0
BIASED MOISTURE	1934	MAX14813EWX+	130C, 85% R.H.	264	HRS	70	0
BIASED MOISTURE	1934	MAX14813EWX+	130C, 85% R.H.	264	HRS	70	0
BIASED MOISTURE	1948	MAX77511SEWB+	130C, 85% R.H.	264	HRS	45	0
BIASED MOISTURE	1948	MAX77511SEWB+	130C, 85% R.H.	264	HRS	45	0
BIASED MOISTURE	1948	MAX77511EWB+	130C, 85% R.H.	264	HRS	45	0
<b>Total:</b>							<b>0</b>

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**UNBIASED MOISTURE RESISTANCE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
MOISTURE SOAK		MAX98357AEWL+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1830	MAX77503EEWC+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1835	MAX77503EEWC+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1848	MAX77503EEWC+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1850	MAX77705FEWN+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1907	MAX77964EWJ+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1910	MAX77964EWJ+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1912	MAX77964EWJ+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1920	MAX77825EWP+T	130C, 85% R.H.	96	HRS	80	0
MOISTURE SOAK	1951	MAX77686EWE+	130C, 85% R.H.	96	HRS	77	0
MOISTURE SOAK	1951	MAX77686EWE+	130C, 85% R.H.	96	HRS	77	0
MOISTURE SOAK	1951	MAX77686EWE+	130C, 85% R.H.	96	HRS	45	0
<b>Total:</b>							<b>0</b>

**FAILURE RATE: MTTF (YRS): 580274 FITS: 0.2**