



7/19/2012

RELIABILITY MONITOR REPORT  
FOR

**uDFN Package**

**MAXIM Integrated Products**

120 San Gabriel Dr.  
Sunnyvale, CA 94086

This Report was prepared by  
Maxim 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	uDFN (Pb-Free)	HANA AYT	6 uDFN (Pb-Free)

The calculated failure rate for this assembly is:

**FAILURE RATE: MTTF (YRS): 39418 FITS: 2.9**

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

**Cf: 60% Ea: 0.7 Tu: 25 °C**

The reliability data follows. At 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 7/1/2011 and 6/30/2012.

**Assembly Information:**

Package Type: uDFN (Pb-Free)

Date Code Range: 1127 to 1201

**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	1127	MAX2659ELT+T	135C	1000 HRS	47	0	
HIGH TEMP OP LIFE	1127	MAX2659ELT+T	135C	1000 HRS	48	0	
HIGH TEMP OP LIFE	1127	MAX2659ELT+T	135C	1000 HRS	48	0	
HIGH TEMP OP LIFE	1201	MAX2659ELT+G126	135C	500 HRS	29	0	
HIGH TEMP OP LIFE	1201	MAX2659ELT+G126	135C	500 HRS	48	0	
HIGH TEMP OP LIFE	1201	MAX2659ELT+G126	135C	500 HRS	48	0	
<b>Total:</b>						<b>0</b>	

**STORAGE LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	1127	MAX2659ELT+T	150C	1000 HRS	77	0	
STORAGE LIFE	1127	MAX2659ELT+T	150C	1000 HRS	77	0	
STORAGE LIFE	1201	MAX2659ELT+G126	150C	1000 HRS	80	0	
STORAGE LIFE	1201	MAX2659ELT+G126	150C	1000 HRS	80	0	
STORAGE LIFE	1201	MAX2659ELT+G126	150C	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, 5' RAMP, 10' DWELL	1127	MAX2659ELT+T	-65C TO 150C	1000 CYS	77	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1127	MAX2659ELT+T	-65C TO 150C	1000 CYS	77	0	

TEMP CYCLE, 5' RAMP, 10' DWELL	1201	MAX2659ELT+G126	-65C TO 150C	1000	CYS	85	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1201	MAX2659ELT+G126	-65C TO 150C	1000	CYS	85	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1201	MAX2659ELT+G126	-65C TO 150C	1000	CYS	85	0
<b>Total:</b>							<b>0</b>

**TEMPERATURE HUMIDITY BIAS**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
BIASED MOISTURE	1201	MAX2659ELT+G126	130C, 85% R.H.	100	HRS	66	0
BIASED MOISTURE	1201	MAX2659ELT+G126	130C, 85% R.H.	100	HRS	80	0
BIASED MOISTURE	1201	MAX2659ELT+G126	130C, 85% R.H.	100	HRS	66	0
<b>Total:</b>							<b>0</b>

**UNBIASED MOISTURE RESISTANCE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
MOISTURE SOAK	1201	MAX2659ELT+G126	130C, 85% R.H.	100	HRS	80	0
MOISTURE SOAK	1201	MAX2659ELT+G126	130C, 85% R.H.	100	HRS	80	0
MOISTURE SOAK	1201	MAX2659ELT+G126	130C, 85% R.H.	100	HRS	81	0
<b>Total:</b>							<b>0</b>

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