

10/23/2014



RELIABILITY MONITOR REPORT  
FOR

**QFP 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		
ATK (Amkor, K)	80	TQFP (Pb-Free)	Carsem-S	48 LQFP (Pb-Free)

The calculated failure rate for this assembly is:

**FAILURE RATE: MTTF (YRS): 7751 FITS: 14.7**

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 10/1/2013 and 9/30/2014.

**Assembly Information:**

Package Type: LQFP (Pb-Free)

Date Code Range: 1406 to 1406

**STORAGE LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	1406	MAX14803CCM+	150°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, 5' RAMP, 10' DWELL	1406	MAX14803CCM+	-65C TO +150C (Condition C)	1000 CYS	80	0	
<b>Total:</b>						<b>0</b>	

**TEMPERATURE HUMIDITY BIAS**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
BIASED MOISTURE	1406	MAX14803CCM+	130C, 85% R.H.	100 HRS	34	0	
<b>Total:</b>						<b>0</b>	

**UNBIASED MOISTURE RESISTANCE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
MOISTURE SOAK	1406	MAX14803CCM+	130C, 85% R.H.	100 HRS	80	0	
<b>Total:</b>						<b>0</b>	

**Assembly Information:**

Package Type: TQFP (Pb-Free)

Date Code Range: 1427 to 1427

**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	1427	MAX14921ECS+	135°C	500 HRS	80	0	

**Total: 0**

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**STORAGE LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	1427	MAX14921ECS+	150°C	500 HRS	80	0	
<b>Total:</b>						<b>0</b>	

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**TEMPERATURE CYCLE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE, 5' RAMP, 10' DWELL	1427	MAX14921ECS+	-65C TO +150C (Condition C)	500 CYS	80	0	
<b>Total:</b>						<b>0</b>	

**FAILURE RATE: MTTF (YRS): 7751 FITS: 14.7**