



4/17/2012

RELIABILITY MONITOR REPORT  
FOR

**TQFP 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 Tawain	64	TQFP (Pb-Free)	ATK	48 TQFP (Pb-Free)
ATK	64	TQFP (Pb-Free)	ATK	80 TQFP (Pb-Free)
Carsem-S	48	TQFP (Pb-Free)		

The calculated failure rate for this assembly is:

**FAILURE RATE: MTTF (YRS): 126839 FITS: 0.9**

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 4/1/2011 and 3/31/2012.

**Assembly Information:**

Package Type: TQFP (Pb-Free)

Date Code Range: 1002 to 1140

**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	1002	MAX9260GCB/V+	135C	1000 HRS	24	0	
HIGH TEMP OP LIFE	1036	MAX9259GCB/V+GG 4	135C	1000 HRS	30	0	
HIGH TEMP OP LIFE	1046	MAX3891ECB+	135C	1000 HRS	45	0	
HIGH TEMP OP LIFE	1046	MAX3891ECB+	135C	1000 HRS	45	0	
HIGH TEMP OP LIFE	1046	MAX9950DCCB+	135C	1000 HRS	77	0	
HIGH TEMP OP LIFE	1046	MAX9950DCCB+	135C	1000 HRS	77	0	
HIGH TEMP OP LIFE	1104	MAX9259GCB/V+	135C	1000 HRS	82	0	
HIGH TEMP OP LIFE	1111	MAX9260GCB/V+GG 4	135C	1000 HRS	87	0	
HIGH TEMP OP LIFE	1123	MAX9259GCB/V+GG 4	135C	1000 HRS	90	0	
HIGH TEMP OP LIFE	1131	MAX9266GCM/V+G G5	135C	1000 HRS	90	0	
HIGH TEMP OP LIFE	1140	MAX19005CCS+	135C	334 HRS	25	0	
<b>Total:</b>						<b>0</b>	

**STORAGE LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	1101	MAX3890ECB+	150C	1000 HRS	77	0	
STORAGE LIFE	1101	MAX3890ECB+	150C	1000 HRS	77	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	1011	MAX3890ECB+	-65C TO 150C	1000 CYS	77	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1101	MX3890ECB+	-65C TO 150C	1000 CYS	77	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1109	MAX9247ECM/V+	-65C TO 150C	500 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1112	MAX9247ECM/V+	-65C TO 150C	500 CYS	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	1046	MAX3891ECB+	85 C/85% R.H.	1000 HRS	45	0	
MOISTURE SOAK	1046	MAX3891ECB+	85 C/85% R.H.	500 HRS	45	0	
MOISTURE SOAK	1046	MAX9950DCCB+	85 C/85% R.H.	1000 HRS	77	0	
MOISTURE SOAK	1046	MAX9950DCCB+	85 C/85% R.H.	1000 HRS	45	0	
					<b>Total:</b>	<b>0</b>	

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