



7/19/2012

RELIABILITY MONITOR REPORT  
FOR

**EMGA 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	
IMBERA	90	EMGA	IMBERA 236 EMGA

The calculated failure rate for this assembly is:

**FAILURE RATE: MTTF (YRS): 12596 FITS: 9.1**

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: EMGA  
Date Code Range: 1108 to NA

**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	N/A	MAX77663AEWJ+T	135C	1000 HRS	43	0	
HIGH TEMP OP LIFE	N/A	MAX77663AEWJ+T	135C	1000 HRS	44	0	
<b>Total:</b>						<b>0</b>	

**STORAGE LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	1108	MAX8955QEMS+	150C	1000 HRS	77	0	
STORAGE LIFE	1108	MAX8955QEMS+	150C	500 HRS	77	0	
STORAGE LIFE	N/A	MAX77663	150C	1000 HRS	77	0	
STORAGE LIFE	N/A	MAX77663	150C	1000 HRS	77	0	
STORAGE LIFE	N/A	MAX77663	150C	1000 HRS	77	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	N/A	MAX77663	-65C TO 150C	1000 CYS	75	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	N/A	MAX77663	-65C TO 150C	1000 CYS	75	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	N/A	MAX77663	-65C TO 150C	1000 CYS	77	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	NA	MAX77663AEWJ+	-65C TO 150C	500 CYS	77	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	NA	MAX77663AEWJ+	-65C TO 150C	500 CYS	77	1	

**Total:** 1

**UNBIASED MOISTURE RESISTANCE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
MOISTURE SOAK	N/A	MAX77663	85 C/85% R.H.	1000 HRS	45	0	
MOISTURE SOAK	N/A	MAX77663	85 C/85% R.H.	1000 HRS	41	0	
MOISTURE SOAK	N/A	MAX77663	85 C/85% R.H.	500 HRS	45	0	
<b>Total:</b>						<b>0</b>	

**FAILURE RATE: MTTF (YRS): 12596 FITS: 9.1**