

8/1/2019



RELIABILITY MONITOR REPORT
FOR

EMGA 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		
JCAP	10	EMGA	JCAP	16 EMGA
SST	10	EMGA		

The calculated failure rate for this assembly is:

FAILURE RATE: MTTF (YRS): 19227 FITS: 5.9

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 4/1/2019 and 8/1/2019

Assembly Information:

Package Type: EMGA
Date Code Range: 1838 to 1850

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE		MAXM17724AMB+T	125°C	500 HRS	46	0	
HIGH TEMP OP LIFE		MAXM17724AMB+	125°C	500 HRS	45	0	
HIGH TEMP OP LIFE		MAXM17712AMB+T	125°C	500 HRS	46	0	
HIGH TEMP OP LIFE	1838	MAXM15067AMB+T	125°C	192 HRS	80	0	
HIGH TEMP OP LIFE	1838	MAXM17623AMB+T	125°C	192 HRS	80	0	
Total:						0	

PACKAGE TESTS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
CONVECTION REFLOW	1850	MAXM17639AME+T	85 C/85% R.H.	3 PASS	350	0	
CONVECTION REFLOW	1850	MAXM17639AME+T	30C, 60% R.H.	3 PASS	350	0	
CONVECTION REFLOW	1850	MAXM17639AME+T	30C, 60% R.H.	3 PASS	350	0	
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE		MAXM17552AMB+	150°C	1000 HRS	80	0	
STORAGE LIFE		MAXM17552AMB+	150°C	1000 HRS	80	0	
STORAGE LIFE		MAXM17552AMB+	150°C	1000 HRS	80	0	
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
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TEMP CYCLE, 5' RAMP, 10' DWELL	MAXM17552AMB+	-65C TO +150C (Condition C)	1000 CYS	78	0
TEMP CYCLE, 5' RAMP, 10' DWELL	MAXM17552AMB+	-65C TO +150C (Condition C)	1000 CYS	79	0
TEMP CYCLE, 5' RAMP, 10' DWELL	MAXM17552AMB+	-65C TO +150C (Condition C)	1000 CYS	79	0
				Total:	0

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
MOISTURE SOAK		MAXM17552AMB+	130C, 85% R.H.	96 HRS	80	0	
MOISTURE SOAK		MAXM17552AMB+	130C, 85% R.H.	96 HRS	80	0	
MOISTURE SOAK		MAXM17552AMB+	130C, 85% R.H.	96 HRS	80	0	
						Total:	0

FAILURE RATE: MTTF (YRS): 19227 FITS: 5.9