



7/19/2012

RELIABILITY MONITOR REPORT
FOR

SC70 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		
Carsem-M	3	SC70	Carsem-M	4 SC70
HANA AYT	3	SC70	UTL	5 SC70
UTL	6	SC70		

The calculated failure rate for this assembly is:

FAILURE RATE: MTTF (YRS): 47740 FITS: 2.4

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: SC70
Date Code Range: 1033 to 1211

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	1115	MAX4786EXS+T	135C	1000 HRS	77	0	
HIGH TEMP OP LIFE	1115	MAX4786EXS+T	135C	1000 HRS	75	0	
HIGH TEMP OP LIFE	1141	MAX6138BEXR25/V+T	135C	1000 HRS	79	0	
HIGH TEMP OP LIFE	1143	MAX44280AXT+	135C	192 HRS	80	0	
Total:						0	

PRECONDITIONING LEVEL 1

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
CONVECTION REFLOW	1211	MAX6834HXRD2+	260C +0/-5C	9001 PASS	399	0	
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	1033	MAX6423XS29+	150C	1000 HRS	50	0	
STORAGE LIFE	1115	MAX4786EXS+T	150C	1000 HRS	80	0	
STORAGE LIFE	1141	LM4050BEX3-2.5+	150C	1000 HRS	50	0	
STORAGE LIFE	1141	MAX6138BEXR25/V+T	150C	1024 HRS	50	0	
STORAGE LIFE	1148	MAX6421XS48+T	150C	1000 HRS	50	0	
STORAGE LIFE	1201	MAX6422XS26+T	150C	1000 HRS	50	0	
STORAGE LIFE	1211	MAX6834HXRD2+	150C	1000 HRS	80	0	

STORAGE LIFE	1211	MAX6834HXRD2+	150C	1000 HRS	80	0
STORAGE LIFE	1211	MAX6834HXRD2+	150C	1000 HRS	80	0
Total:						0

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE, 5' RAMP, 10' DWELL	1033	MAX6423XS29+	-65C TO 150C	500 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1115	MAX4786EXS+T	-65C TO 150C	1000 CYS	77	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1141	LM4050BEX3-2.5+	-65C TO 150C	500 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1141	LM4050BEX3-2.5+	-65C TO 150C	500 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1141	LM4050BEX3-2.5+	-65C TO 150C	500 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1141	MAX6138BEXR25/V+ T	-65C TO 150C	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1142	MAX6138BEXR25/V+ T	-65C TO 150C	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1142	MAX6138BEXR25/V+ T	-65C TO 150C	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1148	MAX6421XS48+T	-65C TO 150C	500 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1201	MAX6422XS26+T	-65C TO 150C	500 CYS	79	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1202	MAX4230AXK+	-65C TO 150C	500 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1211	MAX6834HXRD2+	-65C TO 150C	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1211	MAX6834HXRD2+	-65C TO 150C	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1211	MAX6834HXRD2+	-65C TO 150C	1000 CYS	80	0	
Total:						0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
BIASED MOISTURE	1141	LM4050BEX3-2.5+	130C, 85% R.H.	100 HRS	80	0	
BIASED MOISTURE	1141	LM4050BEX3-2.5+	130C, 85% R.H.	96 HRS	80	0	
BIASED MOISTURE	1141	LM4050BEX3-2.5+	130C, 85% R.H.	96 HRS	80	0	
BIASED MOISTURE	1211	MAX6834HXRD2+	130C, 85% R.H.	100 HRS	45	0	
Total:						0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
MOISTURE SOAK	1141	LM4050BEX3-2.5+	130C, 85% R.H.	100 HRS	78	0	
MOISTURE SOAK	1141	LM4050BEX3-2.5+	130C, 85% R.H.	96 HRS	80	0	
MOISTURE SOAK	1141	LM4050BEX3-2.5+	130C, 85% R.H.	96 HRS	80	0	

FAILURE RATE: MTTF (YRS): 47740 FITS: 2.4

Total: 0