



10/8/2010

RELIABILITY MONITOR REPORT
FOR

QSOP 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	28	QSOP (Pb-Free)	UTL (NSEB) UTAC	14 QSOP (Pb-Free)
UTL (NSEB) UTAC	16	QSOP (Pb-Free)	UTL (NSEB) UTAC	24 QSOP (Pb-Free)

The calculated failure rate for this assembly is:

FAILURE RATE: MTTF (YRS): 13080 FITS: 8.7

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 10/1/2009 and 9/30/2010.

Assembly Information:

Package Type: QSOP (Pb-Free)

Date Code Range: 0846 to 1023

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0846	MAX16917BGEE+	135C	1000 HRS	45	0	
HIGH TEMP OP LIFE	0903	MAX16917BGEE+	135C	500 HRS	45	0	
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	1014	MAX1772EEI+	150C	1000 HRS	80	0	
STORAGE LIFE	1014	MAX1772EEI+	150C	1000 HRS	80	0	
STORAGE LIFE	1014	MAX1772EEI+	150C	1000 HRS	80	0	
STORAGE LIFE	1018	MAX9526AEI+	150C	1000 HRS	45	0	
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE, 5' RAMP, 10' DWELL	0936	MAX1847EEE+	-65C TO 150C	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	0944	MAX8538EEI+	-65C TO 150C	300 CYS	231	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1009	MAX1231BCEG+	-65C TO 150C	1000 CYS	78	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1009	MAX1231BCEG+	-65C TO 150C	1000 CYS	78	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1009	MAX1231BCEG+	-65C TO 150C	1000 CYS	78	0	

TEMP CYCLE, 5' RAMP, 10' DWELL	1014	MAX1772EEI+	-65C TO 150C	1000 CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1014	MAX1772EEI+	-65C TO 150C	1000 CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1014	MAX1772EEI+	-65C TO 150C	1000 CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1017	MAX16917DGEE/V+	-65C TO 150C	1000 CYS	77	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1017	MAX16917DGEE/V+	-65C TO 150C	1000 CYS	77	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1020	MAX16917DGEE/V+	-65C TO 150C	1000 CYS	77	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1023	MAX16917BGEE/V+	-65C TO 150C	1000 CYS	77	0
Total:						0

FAILURE RATE: MTTF (YRS): 13080 FITS: 8.7