



4/20/2008

RELIABILITY MONITOR REPORT
FOR

CSBGA 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		
ATP (Amkor, PI)	256	CSBGA	ATP (Amkor, PI)	25 CSBGA (Pb-Free)
ATP (Amkor, PI)	256	CSBGA (Pb-Free)	SCK (StatsChipPac	144 CSBGA (Pb-Free)
SCS (StatsChipPac Si	16	CSBGA	SCS (StatsChipPac Si	81 CSBGA (Pb-Free)
SCS (StatsChipPac Si	100	CSBGA (Pb-Free)	UNK	144 CSBGA

The calculated failure rate for this assembly is:

FAILURE RATE: MTTF (YRS): 47000 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 4/1/2007 and 3/31/2008.

Assembly Information:

Package Type: CSBGA
 Flammability: UL 94-V0
 Date Code Range: 0705 to 0726

DATA RETENTION

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0711	DS3650	150C	1000 HRS	77	0	
Total:						0	

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE		806-0683-20	135C, 5.25V	1000 HRS	77	0	
HIGH TEMP OP LIFE	0705	DS3100	125C, 3.5V (PSA) & 2.0V (PSB)	1000 HRS	48	0	
HIGH TEMP OP LIFE	0711	DS3650	125C, 3.0V (PSB) & 3.6V (PSA)	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	0726	DS3100	-55C TO 125C	1000 CYS	77	0	
Total:						0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
BIASED MOISTURE	0726	DS3100	85/85, 2.0 VOLTS	1000 HRS	44	0	
Total:						0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HAST, NO BIAS	0726	DS3100	130C, 85% R.H.	96 HRS	77	0	
Total:						0	

Assembly Information:

Package Type: CSBGA (Pb-Free)
Flammability: UL 94-V0
Date Code Range: 0642 to 0731

DATA RETENTION

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0715	DS3605	150C	1000 HRS	77	0	
Total:						0	

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0642	DS32504	125C, 2.0V (PSA) & 3.5V (PSB)	1000 HRS	45	0	
HIGH TEMP OP LIFE	0649	DS33X162	125C, 2.0V (PSB) & 3.5V (PSA)	1000 HRS	45	0	
HIGH TEMP OP LIFE	0715	DS3605	125C, 3.6 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0731	DS3104	125C, 3.5V (PSA) & 2.0V (PSB)	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	0729	DS2155	-55C TO 125C	1000 CYS	77	0	
Total:						0	

FAILURE RATE: MTTF (YRS): 47000 FITS: 2.4