



5/9/2009

RELIABILITY MONITOR REPORT
FOR

SOIC 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	ASSY SITE	PINS	PACKAGE
ATP (Amkor, PI)	8	SOIC (Pb-Free)	ATP (Amkor, PI)	28	SOIC (Pb-Free)
Carsem-S	28	SOIC (Pb-Free)	Hana AYUTHAYA	8	SOIC (Pb-Free)
Unisem Malaysia	8	SOIC	Unisem Malaysia	8	SOIC (Pb-Free)
UTL (NSEB) UTAC	8	SOIC	UTL (NSEB) UTAC	14	SOIC
UTL (NSEB) UTAC	8	SOIC (Pb-Free)			

The calculated failure rate for this assembly is:

FAILURE RATE: MTTF (YRS): 151654 FITS: 0.8

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 1/1/2008 and 12/31/2008.

Assembly Information:

Package Type: SOIC
Date Code Range: 0741 to 0751

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0751	MAX4394ESD+	135C	500 HRS	99	0	
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0741	ICL7665AESA+	150C	1000 HRS	160	0	
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE, 5' RAMP, 10' DWELL	0741	ICL7665AESA+	-65C TO 150C	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	0749	MAX4364ESA+	-65C TO 150C	1000 CYS	80	0	
Total:						0	

Assembly Information:

Package Type: SOIC (Pb-Free)
Date Code Range: 0628 to 0837

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0628	DS1232	125C, 5.5 VOLTS	1000 HRS	77	0	

HIGH TEMP OP LIFE	0647	DS2433	125C, 6.0 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0730	MAX2102CWI+	135C	1000 HRS	44	0
HIGH TEMP OP LIFE	0732	DS1100	125C, 5.5 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0742	DS1834	125C, 5.5 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0744	DS8113	125C, 6.0 VOLTS	1000 HRS	45	0
HIGH TEMP OP LIFE	0746	DS7505	125C, 3.7 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0751	DS75	125C, 5.5 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0802	MAX3085ECSA+	135C	1000 HRS	77	0
HIGH TEMP OP LIFE	0805	DS2433	125C, 6.0 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0805	DS2433	125C, 6.0 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0807	DS2433	125C, 6.0 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0807	DS2433	125C, 6.0 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0821	DS2413	125C, 5.25 VOLTS	1000 HRS	45	0
HIGH TEMP OP LIFE	0824	DS2482-101	125C, 5.5 VOLTS	1000 HRS	45	0
HIGH TEMP OP LIFE	0826	MAX16822AASA+	135C	192 HRS	80	0
HIGH TEMP OP LIFE	0832	DS2502	125C, 6.0 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0837	DS2413	125C, 5.25 VOLTS	1000 HRS	45	0
Total:						0

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0628	DS1232	150C	1000 HRS	75	0	
STORAGE LIFE	0647	DS2433	150C	1000 HRS	76	0	
STORAGE LIFE	0732	DS1100	150C	1000 HRS	77	0	
STORAGE LIFE	0742	DS1834	150C	1000 HRS	76	0	
STORAGE LIFE	0751	DS75	150C	1000 HRS	77	0	
STORAGE LIFE	0802	MAX3085ECSA+	150C	1000 HRS	80	0	
STORAGE LIFE	0808	MAX6006BESA+	150C	1000 HRS	80	0	
STORAGE LIFE	0808	MAX6006BESA+	150C	1000 HRS	80	0	
STORAGE LIFE	0808	MAX6006BESA+	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	0628	DS1232	-55C TO 125C	1000 CYS	77	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	0647	DS2433	-55C TO 125C	1000 CYS	77	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	0732	DS1100	-55C TO 125C	1000 CYS	77	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	0742	DS1834	-55C TO 125C	1000 CYS	77	0	

TEMP CYCLE, 5' RAMP, 10' DWELL	0751	DS75	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE, 5' RAMP, 10' DWELL	0802	MAX3085ECSA+	-65C TO 150C	1000	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	0808	MAX6006BESA+	-65C TO 150C	1000	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	0808	MAX6006BESA+	-65C TO 150C	1000	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	0808	MAX6006BESA+	-65C TO 150C	500	CYS	80	0
Total:						0	0

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
BIASED MOISTURE	0628	DS1232	85/85, 5.5 VOLTS	1000	HRS	77	0
HAST	0647	DS2433	130C, 85%R.H.,5.5V	96	HRS	77	0
BIASED MOISTURE	0732	DS1100	85/85, 5.5 VOLTS	1000	HRS	77	0
BIASED MOISTURE	0742	DS1834	85/85, 5.5 VOLTS	1000	HRS	77	0
HAST	0751	DS75	130C, 85%R.H.,5.5V	96	HRS	77	0
Total:						0	0

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
MOISTURE SOAK	0730	MAX2102CWI+	85 C/85% R.H.	1000	HRS	42	0
MOISTURE SOAK	0730	MAX2102CWI+	85 C/85% R.H.	1000	HRS	45	0
MOISTURE SOAK	0730	MAX2102CWI+	85 C/85% R.H.	1000	HRS	42	0
MOISTURE SOAK	0808	MAX6006BESA+	85 C/85% R.H.	1000	HRS	45	0
MOISTURE SOAK	0808	MAX6006BESA+	85 C/85% R.H.	1000	HRS	50	0
MOISTURE SOAK	0808	MAX6006BESA+	85 C/85% R.H.	1000	HRS	45	0
Total:						0	0

W/E ENDURANCE AND DATA RET'N

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
WRITE CYCLE STRESS (KCYS)	0647	DS2433	25 C, 5.0 VOLTS	50	KCYS	77	0
STORAGE LIFE	0647	DS2433	150C	1000	HRS	77	0
WRITE CYCLE STRESS (KCYS)	0746	DS7505	25 C, 3.7 VOLTS	80	KCYS	77	0
STORAGE LIFE	0746	DS7505	150C	1000	HRS	77	0
STORAGE LIFE	0746	DS7505	150C	1000	HRS	77	0
WRITE CYCLE STRESS (KCYS)	0746	DS7505	85 C, 3.7 VOLTS	20	KCYS	77	0
STORAGE LIFE	0805	DS2433	150C	1000	HRS	231	0
STORAGE LIFE	0805	DS2433	150C	1000	HRS	231	0
WRITE CYCLE STRESS (KCYS)	0805	DS2433	25 C, 5.0 VOLTS	50	KCYS	231	0
WRITE CYCLE STRESS (KCYS)	0805	DS2433	25 C, 5.0 VOLTS	50	KCYS	231	0

WRITE CYCLE STRESS (KCYS)	0807	DS2433	25 C, 5.0 VOLTS	50	KCYS	231	0
STORAGE LIFE	0807	DS2433	150C	1000	HRS	231	0
WRITE CYCLE STRESS (KCYS)	0807	DS2433	25 C, 5.0 VOLTS	50	KCYS	231	0
STORAGE LIFE	0807	DS2433	150C	1000	HRS	231	0

Total: 0

FAILURE RATE: MTTF (YRS): 151654 FITS: 0.8