



10/8/2010

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			
Carsem-M	14	SOIC (Pb-Free)	Carsem-M	28	SOIC (Pb-Free)
Carsem-S	28	SOIC (Pb-Free)	Carsem-S (Jelapang,	28	SOIC (Pb-Free)
Unisem Malaysia	8	SOIC (Pb-Free)	UTL (NSEB) UTAC	16	SOIC
UTL (NSEB) UTAC	8	SOIC (Pb-Free)	UTL (NSEB) UTAC	14	SOIC (Pb-Free)
UTL (NSEB) UTAC	16	SOIC (Pb-Free)	UTL (NSEB) UTAC	20	SOIC (Pb-Free)
UTL (NSEB) UTAC	28	SOIC (Pb-Free)			

The calculated failure rate for this assembly is:

FAILURE RATE: MTTF (YRS): 163079 FITS: 0.7

The parameters used to calculate this failure rate are as follows:

Cf: 60% Ea: 0.7 Tu: 25 °C

The reliability data follows. A 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: SOIC
Date Code Range: 0933 to 0933

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE, 5' RAMP, 10' DWELL	0933	MAX5941AESE	-65C TO 150C	500 CYS	77	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	0933	MAX5941AESE	-65C TO 150C	1000 CYS	77	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	0933	MAX5941AESE	-65C TO 150C	1000 CYS	77	0	
Total:						0	

Assembly Information:

Package Type: SOIC (Pb-Free)
Date Code Range: 0835 to 1023

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0846	DS28EC20	125C, 5.25 VOLTS	408 HRS	80	0	
HIGH TEMP OP LIFE	0930	DS1302	125C, 5.5 VOLTS	1000 HRS	80	0	
HIGH TEMP OP LIFE	0934	MAX16822AASA+	135C	500 HRS	71	0	
HIGH TEMP OP LIFE	0934	MAX16822AASA+	135C	1000 HRS	77	0	
HIGH TEMP OP LIFE	0935	MAX197BCWI+	135C	1000 HRS	46	0	
HIGH TEMP OP LIFE	0935	MAX197BCWI+	135C	1000 HRS	46	0	

HIGH TEMP OP LIFE	0935	MAX197BCWI+	135C	1000 HRS	46	0
HIGH TEMP OP LIFE	0940	DS8113	125C, 6.0 VOLTS	1000 HRS	80	0
HIGH TEMP OP LIFE	0943	MAX706ESA+	135C	1000 HRS	80	0
HIGH TEMP OP LIFE	0944	DS2413	125C, 5.25 VOLTS	1000 HRS	45	0
HIGH TEMP OP LIFE	0947	DS1341	125C, 5.5 VOLTS	192 HRS	77	0
HIGH TEMP OP LIFE	0950	MAX4372HESA+	135C	1000 HRS	80	0
HIGH TEMP OP LIFE	1004	DS75	125C, 5.5 VOLTS	1000 HRS	80	0
HIGH TEMP OP LIFE	1004	MAX66140	125C, 3.3 VOLTS	192 HRS	45	0
HIGH TEMP OP LIFE	1009	DS1624	125C, 5.5 VOLTS	192 HRS	77	0
HIGH TEMP OP LIFE	1015	MAX705ESA+	135C	1000 HRS	79	0
HIGH TEMP OP LIFE	1018	DS4560	100C, 13.2V (PSB) & 5.5V (PSA)	192 HRS	45	0
HIGH TEMP OP LIFE	1018	MAX4372FESA+	135C	1000 HRS	80	0
HIGH TEMP OP LIFE	1021	MAX197BCWI+	135C	500 HRS	45	0
HIGH TEMP OP LIFE	1021	MAX197BCWI+	135C	500 HRS	45	0
HIGH TEMP OP LIFE	1023	MAX913CSA+	135C	1000 HRS	80	0
Total:						0

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0835	MAX13433EESD+	150C	500 HRS	45	0	
STORAGE LIFE	0911	MAX9113ASA/V+	150C	1000 HRS	80	0	
STORAGE LIFE	0927	MAX13041ASD/V+	150C	1000 HRS	77	0	
STORAGE LIFE	0930	DS1302	150C	1000 HRS	80	0	
STORAGE LIFE	0934	MAX16822AASA+	150C	1000 HRS	80	0	
STORAGE LIFE	0934	MAX16822AASA+	150C	1000 HRS	80	0	
STORAGE LIFE	0935	MAX197BCWI+	150C	1000 HRS	78	0	
STORAGE LIFE	0935	MAX197BCWI+	150C	1000 HRS	78	0	
STORAGE LIFE	0935	MAX197BCWI+	150C	1000 HRS	76	0	
STORAGE LIFE	0940	DS8113	150C	1000 HRS	80	0	
STORAGE LIFE	1004	DS75	150C	1000 HRS	80	0	
STORAGE LIFE	1012	MAX270CWP+	150C	1000 HRS	77	0	
STORAGE LIFE	1012	MAX270CWP+	150C	1000 HRS	77	0	
STORAGE LIFE	1012	MAX270CWP+	150C	1000 HRS	77	0	
STORAGE LIFE	1013	MAX6921AWI+	150C	500 HRS	45	0	
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE, 5' RAMP, 10' DWELL	0835	MAX13433EESD+	-65C TO 150C	500 CYS	80	0	

TEMP CYCLE, 5' RAMP, 10' DWELL	0911	MAX9113ASA/V+	-65C TO 150C	500	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	0927	MAX13041ASD/V+	-65C TO 150C	1000	CYS	77	0
TEMP CYCLE, 5' RAMP, 10' DWELL	0930	DS1302	-55C TO 125C	1000	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	0934	MAX16822AASA+	-65C TO 150C	500	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	0934	MAX16822AASA+	-65C TO 150C	500	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	0934	MAX13050ASA+	-65C TO 150C	1000	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	0934	MAX13050ASA+	-65C TO 150C	1000	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	0934	MAX13050ASA+	-65C TO 150C	1000	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	0935	MAX197BCWI+	-65C TO 150C	1000	CYS	78	0
TEMP CYCLE, 5' RAMP, 10' DWELL	0935	MAX197BCWI+	-65C TO 150C	500	CYS	78	0
TEMP CYCLE, 5' RAMP, 10' DWELL	0935	MAX197BCWI+	-65C TO 150C	1000	CYS	76	0
TEMP CYCLE, 5' RAMP, 10' DWELL	0940	DS8113	-55C TO 125C	1000	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1004	DS75	-55C TO 125C	1000	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1012	MAX270CWP+	-65C TO 150C	1000	CYS	77	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1012	MAX270CWP+	-65C TO 150C	1000	CYS	77	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1012	MAX270CWP+	-65C TO 150C	1000	CYS	77	0
Total:						0	0

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HAST	0930	DS1302	130C, 85%R.H.,5.5V	96	HRS	80	0
BIASED MOISTURE	0934	MAX16822AASA+	130C, 85% R.H.	96	HRS	45	0
HAST	1004	DS75	130C, 85%R.H.,5.5V	96	HRS	80	0
Total:						0	0

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HAST, NO BIAS	0846	DS28EC20	130C, 85% R.H.	96	HRS	80	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)	1009	DS1624	85 C, 5.5 VOLTS	25	KCYS	77	0
STORAGE LIFE	1009	DS1624	150C	96	HRS	77	0

FAILURE RATE: MTTF (YRS): ##### FITS: 0.7

Total: 0