1/15/2016

RELIABILITY MONITOR REPORT
FOR

uMAX Package

MAXIM INTEGRATED

160 RIO ROBLES
SAN JOSE, CA 95134

This Report was prepared by
MAXIM INTEGRATED Reliability Engineering

Summary:

The data in the tables that follow was generated as the result of an on-going Package Reliability Monitor. The specifc assemblies included in this package monitor are:

ASSY SITE	PINS	PACKAGE			
ATP (Amkor, PI)	8	uMax (Pb-Free)	ATP (Amkor, PI)	10	uMax (Pb-Free)
UTL (NSEB) UTAC	8	uMax (Pb-Free)	UTL (NSEB) UTAC	10	uMax (Pb-Free)
UTL (NSEB) UTAC	8	uSOP (Pb-Free)			

The calculated failure rate for this assembly is:

FAILURE RATE: MTTF (YRS): 32731 FITS: 3.5

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 1/1/2015 and 12/31/2015 .

Assembly Information:

Package Type: uMax (Pb-Free)

Date Code Range: 1407 to 1506

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT		QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	1407	MAX1744EUB+	135°C	1000	HRS	80	1	
HIGH TEMP OP LIFE	1418	MAX44291AUA+	135°C	192	HRS	77	0	
HIGH TEMP OP LIFE	1433	MAX2750EUA+	135°C	1000	HRS	200	0	
HIGH TEMP OP LIFE	1506	MAX4003EUA+	135°C	1000	HRS	80	0	
					Total:		**1**	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT		QUANTITY	FAILS	FA NO
STORAGE LIFE	1418	MAX16956AUBB+	150°C	1000	HRS	50	0	
STORAGE LIFE	1502	MAX3747AEUB+	150°C	1000	HRS	80	0	
STORAGE LIFE	1506	MAX4003EUA+	150°C	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	1418	MAX16956AUBB+	-65C TO +150C (Condition C)	500	CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1433	MAX2750AUA	-65C TO +150C (Condition C)	1000	CYS	100	0	
					Total:		**0**	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO

BIASED MOISTURE	1418	MAX16956AUBB+	130C, 85% R.H.	100	HRS	80	0
BIASED MOISTURE	1502	MAX3747AEUB+	130C, 85% R.H.	100	HRS	80	0
					Total:		**0**

Assembly Information:

Package Type: uSOP (Pb-Free)

Date Code Range: 1506 to 1506

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT		QUANTITY	FAILS	FA NO
BIASED MOISTURE	1506	MAX4003EUA+	130C, 85% R.H.	100	HRS	80	0	
					Total:		**0**	

FAILURE RATE: MTTF (YRS): 32731 FITS: 3.5