



10/8/2010

RELIABILITY MONITOR REPORT  
FOR

**uMAX 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
UTL (NSEB) UTAC	8	uMAX (Pb-Free)	UTL (NSEB) UTAC	10	uMAX (Pb-Free)

The calculated failure rate for this assembly is:

**FAILURE RATE: MTTF (YRS): 46609 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 10/1/2009 and 9/30/2010.

**Assembly Information:**

Package Type: uMAX (Pb-Free)

Date Code Range: 0835 to 1020

**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0835	MAX6687AU40L+	135C	192 HRS	50	0	
HIGH TEMP OP LIFE	0934	MAX9934FAUA+	135C	281 HRS	50	0	
HIGH TEMP OP LIFE	0948	DS1091L	150C, 3.6 VOLTS	408 HRS	45	0	
HIGH TEMP OP LIFE	0948	DS1091L	150C, 3.6 VOLTS	408 HRS	45	0	
HIGH TEMP OP LIFE	1004	MAX8516EUB+	135C	1000 HRS	48	0	
HIGH TEMP OP LIFE	1004	MAX8516EUB+	135C	1000 HRS	48	0	
HIGH TEMP OP LIFE	1004	MAX8516EUB+	135C	1000 HRS	48	0	
HIGH TEMP OP LIFE	1020	MAX1745AUB+	135C	500 HRS	80	0	
<b>Total:</b>						<b>0</b>	

**STORAGE LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0948	DS1091L	150C	2000 HRS	80	0	
STORAGE LIFE	1004	MAX8516EUB+	150C	1000 HRS	80	0	
STORAGE LIFE	1004	MAX8516EUB+	150C	1000 HRS	80	0	
STORAGE LIFE	1004	MAX8516EUB+	150C	1000 HRS	80	0	
STORAGE LIFE	1020	MAX1745AUB+	150C	1000 HRS	79	0	
<b>Total:</b>						<b>0</b>	

**TEMPERATURE CYCLE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE, 5' RAMP, 10' DWELL	0945	DS3502	-55C TO 125C	500 CYS	231	0	

TEMP CYCLE, 5' RAMP, 10' DWELL	0948	DS1091L	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1004	MAX8516EUB+	-65C TO 150C	500	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1004	MAX8516EUB+	-65C TO 150C	1000	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1004	MAX8516EUB+	-65C TO 150C	500	CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1020	MAX1745AUB+	-65C TO 150C	200	CYS	80	0
<b>Total:</b>						<b>0</b>	<b>0</b>

**TEMPERATURE HUMIDITY BIAS**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HAST	0948	DS1091L	130C, 85%R.H.,3.5V	96	HRS	77	0
<b>Total:</b>						<b>0</b>	<b>0</b>

**UNBIASED MOISTURE RESISTANCE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HAST, NO BIAS	0948	DS1091L	130C, 85% R.H.	96	HRS	77	0
<b>Total:</b>						<b>0</b>	<b>0</b>

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