



4/17/2012

**RELIABILITY MONITOR REPORT  
FOR**

**San Antonio 0.6 $\mu$ m Silicon Gate CMOS (E6)**

**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 Process Reliability Monitor. The specific products in this process monitor are:

DS1347	DS1884	DS18S20	DS2433	DS2501
DS3911				

The calculated failure rate for devices using this process is:

**FAILURE RATE: MTTF (YRS): 45552      QUANTITY: 593      FAILS: 0      FITS: 2.5**

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

**Cf: 60%      Ea: 0.7      Tu: 25 °C**

The reliability data follows and in this section is the detailed reliability data by stress. The reliability data section includes the latest data available. This report covers data between 4/1/2011 and 3/31/2012 .

**Process Information:**

Process Description: San Antonio 0.6µm Silicon Gate CMOS (E6)

**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1040	DS2433	60C, 7.8 VOLTS	17 HRS	80	0	FJ047843AD
HIGH TEMP OP LIFE	1113	DS3911	125C, 5.5 VOLTS	192 HRS	48	0	ZJ167332AB-NPI
HIGH TEMP OP LIFE	1115	DS1884	125C, 3.6 VOLTS	192 HRS	77	0	ZJ167335AA-NPI
HIGH TEMP OP LIFE	1127	DS2501	125C, 6.0 VOLTS	1164 HRS	77	0	QE168668AB-QUAL
HIGH TEMP OP LIFE	1127	DS2501	125C, 6.0 VOLTS	1164 HRS	77	0	QE168668AC-QUAL
HIGH TEMP OP LIFE	1127	DS2501	125C, 6.0 VOLTS	1164 HRS	77	0	QE168668AD-QUAL
HIGH TEMP OP LIFE	1129	DS1347	125C, 5.5 VOLTS	192 HRS	77	0	ZS167344ADA-NPI
HIGH TEMP OP LIFE	1138	DS18S20	125C, 5.5 VOLTS	1000 HRS	80	0	FD271756AB
<b>Total:</b>						<b>0</b>	

**STORAGE LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1127	DS2501	150C	1000 HRS	77	0	QE168668AD-QUAL
STORAGE LIFE	1127	DS2501	150C	1000 HRS	77	0	QE168668AC-QUAL
STORAGE LIFE	1127	DS2501	150C	1000 HRS	77	0	QE168668AB-QUAL
STORAGE LIFE	1138	DS18S20	150C	1000 HRS	80	0	FD271756AB
<b>Total:</b>						<b>0</b>	

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**TEMPERATURE CYCLE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
TEMP CYCLE, 5' RAMP, 10' DWELL	1127	DS2501	-55C TO 125C	1000	CYS	77	0	QE168668AB-QUAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1127	DS2501	-55C TO 125C	1000	CYS	77	0	QE168668AC-QUAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1127	DS2501	-55C TO 125C	1000	CYS	77	0	QE168668AD-QUAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1138	DS18S20	-55C TO 125C	1000	CYS	80	0	FD271756AB
						<b>Total:</b>	<b>0</b>	

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**TEMPERATURE HUMIDITY BIAS**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
HAST	1127	DS2501	130C, 85%R.H.,5.5V	96	HRS	77	0	QE168668AB-QUAL
HAST	1127	DS2501	130C, 85%R.H.,5.5V	96	HRS	77	0	QE168668AC-QUAL
HAST	1127	DS2501	130C, 85%R.H.,5.5V	96	HRS	77	0	QE168668AD-QUAL
HAST	1138	DS18S20	130C, 85%R.H.,5.5V	96	HRS	80	0	FD271756AB
						<b>Total:</b>	<b>0</b>	

**FAILURE RATE:**    **MTTF (YRS): 45552**    **QUANTITY: 593**    **FAILS: 0**    **FITS: 2.5**