

4/16/2014



**RELIABILITY MONITOR REPORT  
FOR**

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

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

DS2433	DS2501
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The calculated failure rate for devices using this process is:

**FAILURE RATE:    MTTF (YRS): 45239    QUANTITY: 385    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 4/1/2013 and 3/31/2014 .

**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	1247	DS2433	125C, 6.0 VOLTS	1000 HRS	77	0	ZJ384312AG
HIGH TEMP OP LIFE	1247	DS2433	125C, 6.0 VOLTS	1000 HRS	77	0	ZJ384312AH
HIGH TEMP OP LIFE	1307	DS2501	125C, 6.0 VOLTS	1000 HRS	77	0	ZK386258AC-QUAL
HIGH TEMP OP LIFE	1307	DS2501	125C, 6.0 VOLTS	1000 HRS	77	0	ZK386258AD-QUAL
HIGH TEMP OP LIFE	1307	DS2501	125C, 6.0 VOLTS	1000 HRS	77	0	ZK386258AE-QUAL
<b>Total:</b>						<b>0</b>	

**STORAGE LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1247	DS2433	150°C	1000 HRS	77	0	ZJ384312AF
STORAGE LIFE	1247	DS2433	150°C	1000 HRS	77	0	ZJ384312AG
STORAGE LIFE	1247	DS2433	150°C	1000 HRS	77	0	ZJ384312AH
STORAGE LIFE	1307	DS2501	150°C	1000 HRS	77	0	ZK386258AC-QUAL
STORAGE LIFE	1307	DS2501	150°C	1000 HRS	77	0	ZK386258AD-QUAL
STORAGE LIFE	1307	DS2501	150°C	1000 HRS	77	0	ZK386258AE-QUAL
<b>Total:</b>						<b>0</b>	

**TEMPERATURE CYCLE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	1247	DS2433	-55C TO 125C	1000 CYS	77	0	ZJ384312AF

TEMP CYCLE, 5' RAMP, 10' DWELL	1247	DS2433	-55C TO 125C	1000	CYS	77	0	ZJ384312AG
TEMP CYCLE, 5' RAMP, 10' DWELL	1247	DS2433	-55C TO 125C	1000	CYS	77	0	ZJ384312AH
TEMP CYCLE, 5' RAMP, 10' DWELL	1307	DS2501	-55C TO 125C	1000	CYS	77	0	ZK386258AC-QUAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1307	DS2501	-55C TO 125C	1000	CYS	77	0	ZK386258AD-QUAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1307	DS2501	-55C TO 125C	1000	CYS	77	0	ZK386258AE-QUAL
<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	1247	DS2433	130C, 85%R.H., 5.5V	96	HRS	78	0	ZJ384312AF
HAST	1247	DS2433	130C, 85%R.H., 5.5V	96	HRS	77	0	ZJ384312AG
HAST	1247	DS2433	130C, 85%R.H., 5.5V	96	HRS	77	0	ZJ384312AH
HAST	1307	DS2501	130C, 85%R.H., 5.5V	96	HRS	77	0	ZK386258AC-QUAL
HAST	1307	DS2501	130C, 85%R.H., 5.5V	96	HRS	77	0	ZK386258AD-QUAL
HAST	1307	DS2501	130C, 85%R.H., 5.5V	96	HRS	77	0	ZK386258AE-QUAL
<b>Total:</b>							<b>0</b>	
<b>FAILURE RATE:</b>	<b>MTTF (YRS):</b>	<b>45239</b>	<b>QUANTITY:</b>	<b>385</b>	<b>FAILS:</b>	<b>0</b>	<b>FITS:</b>	<b>2.5</b>