

4/16/2014



**RELIABILITY MONITOR REPORT  
FOR**

**San Antonio 0.5 $\mu$ m Silicon Gate CMOS (E35)**

**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:

DS1088E	DS1629	DS2431
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The calculated failure rate for devices using this process is:

**FAILURE RATE: MTTF (YRS): 12590      QUANTITY: 234      FAILS: 0      FITS: 9.1**

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 0.5µm Silicon Gate CMOS (E35)

**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1303	DS2431	125C, 5.25 VOLTS	1000 HRS	77	0	FH277189AD
HIGH TEMP OP LIFE	1334	DS1088E	125C, 3.6 VOLTS	192 HRS	77	0	ZJ489578CD-NPI
HIGH TEMP OP LIFE	1341	DS1629	125C, 5.5 VOLTS	192 HRS	80	0	ZJ489579BB-NPI
<b>Total:</b>						<b>0</b>	

**STORAGE LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1303	DS2431	150°C	1000 HRS	50	0	FH277189AD
<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	1303	DS2431	-65C TO 150C	500 CYS	77	0	FH277189AD
<b>Total:</b>						<b>0</b>	

**TEMPERATURE HUMIDITY BIAS**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HAST	1303	DS2431	130C, 85%R.H., 5.25V	96 HRS	77	0	FH277189AD
<b>Total:</b>						<b>0</b>	

**UNBIASED MOISTURE RESISTANCE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
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HAST, NO BIAS      1303 DS2431      130C, 85%      96      HRS      77      0      FH277189AD  
R.H.

**Total:**      **0**

**FAILURE RATE:**      **MTTF (YRS): 12590**      **QUANTITY: 234**      **FAILS: 0**      **FITS: 9.1**