

4/17/2013



**RELIABILITY MONITOR REPORT
FOR**

San Antonio 0.6 μ 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:

DS1308	DS1339A	DS1390	DS1683	DS1856M
DS1886	DS18S20	DS2433		

The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 37220 QUANTITY: 705 FAILS: 0 FITS: 3.1

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 4/1/2012 and 3/31/2013 .

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	1147	DS1308	125C, 5.5 VOLTS	240 HRS	80	0	ZD275067AC-NPI
HIGH TEMP OP LIFE	1207	DS1886	125C, 3.6 VOLTS	192 HRS	80	0	ZJ276689AA-NPI
HIGH TEMP OP LIFE	1221	DS1856M	125C, 5.5 VOLTS	192 HRS	80	0	ZJ280139AC-NPI
HIGH TEMP OP LIFE	1224	DS1683	125C, 5.5 VOLTS	240 HRS	80	0	ZD280142AB-NPI
HIGH TEMP OP LIFE	1224	DS1339A	125C, 5.5 VOLTS	192 HRS	80	0	ZJ280144AB-NPI
HIGH TEMP OP LIFE	1224	DS18S20	125C, 5.5 VOLTS	1000 HRS	80	0	FJ278503ACA
HIGH TEMP OP LIFE	1231	DS1390	125C, 5.5 VOLTS	192 HRS	45	0	FJ273795AMA
HIGH TEMP OP LIFE	1231	DS1390	125C, 5.5 VOLTS	192 HRS	45	0	FJ273795AMA
HIGH TEMP OP LIFE	1234	DS2433	125C, 6.0 VOLTS	1000 HRS	45	0	QK278586AC
HIGH TEMP OP LIFE	1234	DS2433	125C, 6.0 VOLTS	1000 HRS	45	0	QK278586AB
HIGH TEMP OP LIFE	1234	DS2433	125C, 6.0 VOLTS	1000 HRS	45	0	QK278586AD
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1224	DS18S20	150°C	1000 HRS	80	0	FJ278503ACA

STORAGE LIFE	1234	DS2433	150°C	1000	HRS	77	0	QK278586AC
STORAGE LIFE	1234	DS2433	150°C	1000	HRS	77	0	QK278586AB
STORAGE LIFE	1234	DS2433	150°C	1000	HRS	77	0	QK278586AD
Total:							0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
TEMP CYCLE, 5' RAMP, 10' DWELL	1224	DS18S20	-55C TO 125C	1000	CYS	80	0	FJ278503ACA
TEMP CYCLE, 5' RAMP, 10' DWELL	1234	DS2433	-55C TO 125C	1000	CYS	77	0	QK278586AC
TEMP CYCLE, 5' RAMP, 10' DWELL	1234	DS2433	-55C TO 125C	1000	CYS	77	0	QK278586AB
TEMP CYCLE, 5' RAMP, 10' DWELL	1234	DS2433	-55C TO 125C	1000	CYS	77	0	QK278586AD
Total:							0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
HAST	1224	DS18S20	130C, 85%R.H., 5.5V	96	HRS	80	0	FJ278503ACA
HAST	1234	DS2433	130C, 85%R.H., 5.5V	96	HRS	77	0	QK278586AC
HAST	1234	DS2433	130C, 85%R.H., 5.5V	96	HRS	77	0	QK278586AB
HAST	1234	DS2433	130C, 85%R.H., 5.5V	96	HRS	77	0	QK278586AD
Total:							0	

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