



7/19/2012

**RELIABILITY MONITOR REPORT
FOR**

San Antonio Silicon Gate 0.8 μ m CMOS (EC8)

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:

DS1233	DS1992	DS75
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The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 27496 QUANTITY: 234 FAILS: 0 FITS: 4.2

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 7/1/2011 and 6/30/2012 .

Process Information:

Process Description: San Antonio Silicon Gate 0.8µm CMOS (EC8)

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1132	DS1233	125C, 5.5 VOLTS	1000 HRS	77	0	ZH946242EBA-QUA
HIGH TEMP OP LIFE	1132	DS1233	125C, 5.5 VOLTS	1000 HRS	77	0	ZH946242ECA-QUA
HIGH TEMP OP LIFE	1138	DS75	125C, 5.5 VOLTS	1000 HRS	80	0	FD272216AE
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1132	DS1233	150C	1000 HRS	77	0	ZH946242EBA-QUA
STORAGE LIFE	1132	DS1233	150C	1000 HRS	77	0	ZH946242ECA-QUA
STORAGE LIFE	1132	DS1233	150C	1000 HRS	77	0	ZH946242EDA-QUA
STORAGE LIFE	1138	DS75	150C	1000 HRS	79	0	FD272216AE
STORAGE LIFE	1214	DS1992	85 C	1000 HRS	77	0	ZH273560ACD-ENG
STORAGE LIFE	1214	DS1992	85 C	1000 HRS	77	0	ZH273560ACE-ENG
STORAGE LIFE	1215	DS1992	85 C	1000 HRS	77	0	ZH273560ACF-ENG
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	1132	DS1233	-55C TO 125C	1000 CYS	77	0	ZH946242EBA-QUA
TEMP CYCLE, 5' RAMP, 10' DWELL	1132	DS1233	-55C TO 125C	1000 CYS	77	0	ZH946242ECA-QUA

TEMP CYCLE, 5' RAMP, 10' DWELL	1132	DS1233	-55C TO 125C	1000	CYS	77	0	ZH946242EDA-QUA
TEMP CYCLE, 5' RAMP, 10' DWELL	1138	DS75	-55C TO 125C	1000	CYS	80	0	FD272216AE
TEMP CYCLE, 5' RAMP, 10' DWELL	1214	DS1992	-40 TO 85C	1000	CYS	77	0	ZH273560ACD-ENG
TEMP CYCLE, 5' RAMP, 10' DWELL	1214	DS1992	-40 TO 85C	1000	CYS	77	0	ZH273560ACE-ENG
TEMP CYCLE, 5' RAMP, 10' DWELL	1215	DS1992	-40 TO 85C	1000	CYS	77	0	ZH273560ACF-ENG
Total:							0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
HAST	1132	DS1233	130C, 85%R.H., 5.5V	96	HRS	77	0	ZH946242EBA-QUA
HAST	1132	DS1233	130C, 85%R.H., 5.5V	96	HRS	77	0	ZH946242ECA-QUA
HAST	1132	DS1233	130C, 85%R.H., 5.5V	96	HRS	77	0	ZH946242EDA-QUA
HAST	1138	DS75	130C, 85%R.H., 5.5V	96	HRS	80	0	FD272216AE
Total:							0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
MOISTURE SOAK	1214	DS1992	60C/90% R.H.	1000	HRS	77	0	ZH273560ACD-ENG
MOISTURE SOAK	1214	DS1992	60C/90% R.H.	1000	HRS	77	0	ZH273560ACE-ENG
MOISTURE SOAK	1215	DS1992	60C/90% R.H.	1000	HRS	77	0	ZH273560ACF-ENG
Total:							0	

FAILURE RATE: MTTF (YRS): 27496 QUANTITY: 234 FAILS: 0 FITS: 4.2