



5/9/2009

**RELIABILITY MONITOR REPORT  
FOR**

**San Antonio 0.8 $\mu$ m Silicon Gate CMOS**

**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:

MAX13413EESA	MAX15003ATM	MAX16020PTEZ	MAX16021LTER	MAX16023LTAS
MAX16053AUT+	MAX1607ESA+	MAX16824EUE+	MAX16825EUE	MAX1790EUA+
MAX1842ETI+	MAX3349EAETE	MAX4845EYT+	MAX8586ETA+	MAX8785ETI+
MAX9788ETI+				

The calculated failure rate for devices using this process is:

**FAILURE RATE:                    MTTF (YRS): 48740                    FITS: 2.3**

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 1/1/2008 and 12/31/2008.

**Process Information:**

Process Description:                    San Antonio 0.8µm Silicon Gate CMOS

**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	0636	MAX3349EAETE+	135C	192 HRS	48	0	TBBZAQ001EQ
HIGH TEMP OP LIFE	0640	MAX9788ETI+	135C	192 HRS	48	0	TALZAA004AQ
HIGH TEMP OP LIFE	0722	MAX15003ATM+	135C	192 HRS	48	0	TBKZAQ001GQ
HIGH TEMP OP LIFE	0729	MAX4845EYT+	135C	1000 HRS	45	0	TYW2AA081Q3
HIGH TEMP OP LIFE	0737	MAX1790EUA+	135C	1000 HRS	50	0	T8VAHA151Q2
HIGH TEMP OP LIFE	0737	MAX1790EUA+	135C	1000 HRS	50	0	T8VAHA151Q3
HIGH TEMP OP LIFE	0738	MAX13413EESA+	135C	192 HRS	48	0	TFXWBQ002BQ
HIGH TEMP OP LIFE	0740	MAX16824EUE+	135C	192 HRS	48	0	TGLZBQ001CQ
HIGH TEMP OP LIFE	0740	MAX16825EUE	135C	192 HRS	48	0	TGLYBQ001CQ
HIGH TEMP OP LIFE	0750	MAX16020PTEZ+	135C	192 HRS	50	0	T0000A043CQ
HIGH TEMP OP LIFE	0823	MAX16023LTAS18+	135C	192 HRS	50	0	T0000A084AQ
HIGH TEMP OP LIFE	0827	MAX8785ETI+	135C	192 HRS	48	0	TV80CQ002BQ
HIGH TEMP OP LIFE	0834	MAX16021LTER+	135C	192 HRS	48	0	T0000A093BQ
HIGH TEMP OP LIFE	0834	MAX16053AUT+	135C	192 HRS	48	0	TLKYCQ001CQ
<b>Total:</b>						<b>0</b>	

**STORAGE LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	0733	MAX1607ESA+	150C	1000 HRS	80	0	T9DAKA030E#
STORAGE LIFE	0737	MAX1790EUA+	150C	1000 HRS	77	0	T8VAHA151Q2

STORAGE LIFE	0742	MAX1842ETI+	150C	1000 HRS	80	0	T3QBGA056Q1
STORAGE LIFE	0742	MAX1842ETI+	150C	1000 HRS	80	0	T3QBGA056Q2
STORAGE LIFE	0742	MAX1842ETI+	150C	1000 HRS	80	0	T3QBGA056Q3
<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	0719	MAX8586ETA+	-65C TO 150C	1000 CYS	74	0	TTQ0D4004A#
TEMP CYCLE, 5' RAMP, 10' DWELL	0737	MAX8586ETA+	-65C TO 150C	1000 CYS	77	0	TTQ0DA005M#
TEMP CYCLE, 5' RAMP, 10' DWELL	0742	MAX1842ETI+	-65C TO 150C	1000 CYS	80	0	T3QBGA056Q1
TEMP CYCLE, 5' RAMP, 10' DWELL	0742	MAX1842ETI+	-65C TO 150C	1000 CYS	80	0	T3QBGA056Q2
TEMP CYCLE, 5' RAMP, 10' DWELL	0742	MAX1842ETI+	-65C TO 150C	1000 CYS	80	0	T3QBGA056Q3
<b>Total:</b>						<b>0</b>	

**FAILURE RATE:**                      **MTTF (YRS): 48740**                      **FITS: 2.3**