



4/8/2009

RELIABILITY MONITOR REPORT
FOR

SAT 0.4 μ 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:

MAX1589EZT25	MAX1829ETL+	MAX1976AETA1	MAX4814EECB+	MAX4929EEP+
MAX5134ETE+	MAX8631XETI+	MAX8671CETL+	MAX8676ELB+	MAX8695GELR+
MAX8804YETA	MAX8804ZETA+			

The calculated failure rate for devices using this process is:

FAILURE RATE: **MTTF (YRS): 34680** **FITS: 3.3**

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 7/1/2007 and 6/30/2008 .

Process Information:

Process Description: SAT 0.4µm Silicon Gate CMOS

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	0708	MAX8804YETA+	135C	192 HRS	48	0	TDXYBQ002CQ
HIGH TEMP OP LIFE	0716	MAX4929EEP+	135C	192 HRS	48	0	TBCZBQ001GQ
HIGH TEMP OP LIFE	0717	MAX4814EECB+	135C	192 HRS	48	0	TFPZAQ001FQ
HIGH TEMP OP LIFE	0722	MAX8804ZETA+	135C	192 HRS	48	0	TDXZCQ002DQ
HIGH TEMP OP LIFE	0723	MAX8671CETL+	135C	192 HRS	50	0	TGCYC4002BQ
HIGH TEMP OP LIFE	0723	MAX1829ETL+	135C	192 HRS	48	0	TQ20HQ001FQ
HIGH TEMP OP LIFE	0724	MAX8676ELB+	135C	500 HRS	48	0	TAWZD3004B
HIGH TEMP OP LIFE	0746	MAX8695GELR+	135C	1000 HRS	45	0	TW63BA101KA
HIGH TEMP OP LIFE	0746	MAX8676ELB+	135C	192 HRS	43	0	TAWZD6197C
HIGH TEMP OP LIFE	0746	MAX8676ELB+	135C	1000 HRS	43	0	
HIGH TEMP OP LIFE	0806	MAX1589EZT250+T	135C	500 HRS	80	0	TM20G2125DC
HIGH TEMP OP LIFE	0814	MAX8631XETI+	135C	192 HRS	37	0	TDPCC2452K
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	0724	MAX8676ELB+	150C	1000 HRS	80	0	TAWZD3004B
STORAGE LIFE	0810	MAX1976AETA130+T	150C	500 HRS	80	0	TM20GA071Q1
STORAGE LIFE	0810	MAX1976AETA130+T	150C	500 HRS	80	0	TM20GA071Q1
STORAGE LIFE	0810	MAX1976AETA130+T	150C	500 HRS	80	0	TM20GA071Q2
STORAGE LIFE	0810	MAX1976AETA130+T	150C	500 HRS	80	0	TM20GA071Q2

STORAGE LIFE	0810	MAX1976AETA130+T	150C	500	HRS	80	0	TM20GA071Q3
STORAGE LIFE	0810	MAX1976AETA130+T	150C	500	HRS	80	0	TM20GA071Q3
Total:							0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
TEMP CYCLE, 5' RAMP, 10' DWELL	0724	MAX8676ELB+	-65C TO 150C	1000 CYS	80	0	TAWZD3004B	
TEMP CYCLE, 5' RAMP, 10' DWELL	0731	MAX5134ETE+	-65C TO 150C	500 CYS	77		TEMZAQ001AC	
TEMP CYCLE, 5' RAMP, 10' DWELL	0810	MAX1976AETA130+T	-65C TO 150C	1000 CYS	79	0	TM20GA071Q1	
TEMP CYCLE, 5' RAMP, 10' DWELL	0810	MAX1976AETA130+T	-65C TO 150C	1000 CYS	79	0	TM20GA071Q1	
TEMP CYCLE, 5' RAMP, 10' DWELL	0810	MAX1976AETA130+T	-65C TO 150C	1000 CYS	80	0	TM20GA071Q2	
TEMP CYCLE, 5' RAMP, 10' DWELL	0810	MAX1976AETA130+T	-65C TO 150C	1000 CYS	80	0	TM20GA071Q2	
Total:							0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
BIASED MOISTURE	0731	MAX5134ETE+	130C, 85% R.H.	96 HRS	50		TEMZAQ001AC	
BIASED MOISTURE	0810	MAX1976AETA130+T	130C, 85% R.H.	96 HRS	44	0	TM20GA071Q2	
BIASED MOISTURE	0810	MAX1976AETA130+T	130C, 85% R.H.	96 HRS	44	0	TM20GA071Q2	
Total:							0	

FAILURE RATE: MTTF (YRS): 34680 FITS: 3.3