



5/9/2009

**RELIABILITY MONITOR REPORT
FOR**

X3 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:

DS2733	DS8500	MAX1510ETB	MAX1510ETB+	MAX16803ATE+
MAX16822AAS	MAX16836ATE+	MAX17000ETG+	MAX17016ETL+	MAX17017ETM
MAX17022ETA+	MAX17061ETI+	MAX17067EUA+	MAX17079GTL+	MAX1785EUU+
MAX1786EUI+	MAX4740EVE+	MAX4909EWC+	MAX4944ELA+T	MAX8556ETE+
MAX8557ETE+	MAX8625AETD	MAX8630XETD	MAX8670AETL+	MAX8676EWJ+T
MAX8683ETM+	MAX8697SEWQ	MAX8795AETJ+	MAX8795AGCJ+	MAX8821ETI+
MAX8855ETJ+	MAX8857AETL+	MAX9516ALB+	MAX9587AZT+	MAX9877ETG+
MAXQ3180				

The calculated failure rate for devices using this process is:

FAILURE RATE: **MTTF (YRS): 189927** **FITS: 0.6**

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: X3 0.4µm Silicon Gate CMOS

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	0634	MAX8670AETL+	135C	192 HRS	47	0	SU44BA072CQ
HIGH TEMP OP LIFE	0645	MAX9587AZT+	135C	192 HRS	50	0	SDMZAQ001CQ
HIGH TEMP OP LIFE	0650	MAX1510ETB	135C	1000 HRS	48	0	SJM0BA018A#
HIGH TEMP OP LIFE	0711	MAX8625AETD+	135C	192 HRS	50	0	SCT0FY002BQ
HIGH TEMP OP LIFE	0719	MAX8630XETD20+	135C	1000 HRS	48	0	SJCBAA045D
HIGH TEMP OP LIFE	0725	MAX8855ETJ+	135C	192 HRS	48	0	SN00EQ003DQ
HIGH TEMP OP LIFE	0726	MAX9516ALB+	135C	192 HRS	48	0	SDJZCQ002BQ
HIGH TEMP OP LIFE	0736	MAX8795AETJ+	135C	500 HRS	43	0	SAHYCA007B#
HIGH TEMP OP LIFE	0737	MAX17067EUA+	135C	192 HRS	48	0	SKEZAQ001CQ
HIGH TEMP OP LIFE	0738	MAX17016ETL+	135C	192 HRS	48	0	SCFTAAGQ
HIGH TEMP OP LIFE	0739	MAX16803ATE+	135C	1000 HRS	80	0	S0000Q231BD
HIGH TEMP OP LIFE	0739	MAX17017ETM+	135C	1000 HRS	73	0	SGEZCQ002C
HIGH TEMP OP LIFE	0739	MAX17017ETM+	135C	1000 HRS	77	0	SGEZCQ002FA
HIGH TEMP OP LIFE	0739	MAX17017ETM+	135C	832 HRS	75	0	SGEZCQ003B
HIGH TEMP OP LIFE	0739	MAX8683ETM+	135C	192 HRS	55	0	SFTZBQ001AQ
HIGH TEMP OP LIFE	0740	MAX8857AETL+	135C	192 HRS	48	0	SGJEZ3002CR

HIGH TEMP OP LIFE	0740	MAX8857AETL+	135C	1000 HRS	45	0	SGJZE3002C#
HIGH TEMP OP LIFE	0742	MAX17079GTL+	135C	192 HRS	48	0	SMFZBQ001BQ
HIGH TEMP OP LIFE	0745	MAX1785EUU+	135C	1000 HRS	80	0	SK61H2040A
HIGH TEMP OP LIFE	0746	MAX8821ETI+	135C	192 HRS	50	0	SCRZBQ003AQ
HIGH TEMP OP LIFE	0747	MAX1785EUU+	135C	192 HRS	53	0	SK61FA046BQ
HIGH TEMP OP LIFE	0747	MAX17000ETG+	135C	192 HRS	48	0	SEBZBQ001BQ
HIGH TEMP OP LIFE	0749	MAXQ3180	125C, 3.6 VOLTS	1000 HRS	44	0	QK774000AAA
HIGH TEMP OP LIFE	0752	MAX8857AETL+	135C	192 HRS	55	0	SGJZE4020EQ
HIGH TEMP OP LIFE	0803	MAX9877ETG+	135C	192 HRS	55	0	SLTZCQ001DQ
HIGH TEMP OP LIFE	0807	MAX16836ATE+	135C	500 HRS	80	0	SGIZEQ001FA
HIGH TEMP OP LIFE	0808	MAX16836ATE+	135C	500 HRS	69	0	SG1ZEQ002E
HIGH TEMP OP LIFE	0814	MAX1786EUI+	135C	192 HRS	48	0	SIOY CZ008FQ
HIGH TEMP OP LIFE	0819	DS2733	125C, 13.31V (PSB) & 3.5V (PSA)	1000 HRS	45	0	XJ881600BB-NPI
HIGH TEMP OP LIFE	0825	MAX17061ETI+	135C	192 HRS	47	0	SHCYDA006E#
HIGH TEMP OP LIFE	0826	MAX16822AASA+	135C	192 HRS	80	0	SNCZAQ001EA
HIGH TEMP OP LIFE	0833	MAX8857AETL+	135C	500 HRS	80	0	SGJZEA065BD
HIGH TEMP OP LIFE	0833	MAX8857AETL+	135C	1000 HRS	80	0	SGJZEA06580
HIGH TEMP OP LIFE	0835	DS8500	125C, 3.6 VOLTS	1000 HRS	45	0	QJ982700ABA
HIGH TEMP OP LIFE	0839	MAX17022ETA+	135C	192 HRS	48	0	SIMZCQ002EQ
HIGH TEMP OP LIFE	746	MAX1785EUU+	135C	1000 HRS	80	0	SK61H2041A
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	0651	MAX4740EVE+	150C	1000 HRS	76	0	SQ60AQ001QD
STORAGE LIFE	0651	MAX4740EVE+	150C	1000 HRS	76	0	SQ60AQ001QE
STORAGE LIFE	0651	MAX4740EVE+	150C	1000 HRS	77	0	SQ60AQ001QF
STORAGE LIFE	0726	MAX8795AGCJ+	150C	1000 HRS	78	0	SAHYCA004B#
STORAGE LIFE	0739	MAX16803ATE+	150C	1000 HRS	80	0	S0000Q231BD
STORAGE LIFE	0739	MAX17017ETM+	150C	1000 HRS	80	0	SGEZCQ002FA
STORAGE LIFE	0739	MAX17017ETM+	150C	1000 HRS	76	0	SGEZCQ003B
STORAGE LIFE	0740	MAX8857AETL+	150C	1000 HRS	80	0	SGJEZ3002CR
STORAGE LIFE	0746	MAX1785EUU+	150C	1000 HRS	80	0	SK61H2041A
STORAGE LIFE	0803	MAX1510ETB+	150C	1000 HRS	80	0	SJM0CA046GB
STORAGE LIFE	0807	MAX16836ATE+	150C	1000 HRS	80	0	SG1ZEQ001FA
STORAGE LIFE	745	MAX1785EUU+	150C	1000 HRS	80	0	SK61H2040A

STORAGE LIFE	N/A	MAX8697SEWQ+T	150C	500	HRS	67	0	SKQYBY001A
					Total:		0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	0651	MAX4740EVE+	-65C TO 150C	1000	CYS	76	0 SQ60AQ001QD
TEMP CYCLE, 5' RAMP, 10' DWELL	0651	MAX4740EVE+	-65C TO 150C	1000	CYS	73	0 SQ60AQ001QE
TEMP CYCLE, 5' RAMP, 10' DWELL	0651	MAX4740EVE+	-65C TO 150C	1000	CYS	76	0 SQ60AQ001Q
TEMP CYCLE, 5' RAMP, 10' DWELL	0726	MAX8795AGCJ+	-65C TO 150C	1000	CYS	77	0 SAHYCA004B#
TEMP CYCLE, 5' RAMP, 10' DWELL	0739	MAX17017ETM+	-65C TO 150C	1000	CYS	79	0 SGEZCQ002FA
TEMP CYCLE, 5' RAMP, 10' DWELL	0739	MAX1785EUU+	-65C TO 150C	1000	CYS	79	0 SK61HZ044A
TEMP CYCLE, 5' RAMP, 10' DWELL	0740	MAX8857AETL+	-65C TO 150C	1000	CYS	80	0 SGJZEE3002C#
TEMP CYCLE, 5' RAMP, 10' DWELL	0745	MAX1785EUU+	-65C TO 150C	1000	CYS	80	0 SK61H2040A
TEMP CYCLE, 5' RAMP, 10' DWELL	0746	MAX1785EUU+	-65C TO 150C	1000	CYS	79	0 SK61H2041A
TEMP CYCLE, 5' RAMP, 10' DWELL	0751	MAX8556ETE+	-65C TO 150C	400	CYS	80	0 SNAOHA027J
TEMP CYCLE, 5' RAMP, 10' DWELL	0751	MAX8557ETE+	-65C TO 150C	1000	CYS	80	0 SNA0HA027J
TEMP CYCLE, 5' RAMP, 10' DWELL	0803	MAX1510ETB+	-65C TO 150C	1000	CYS	80	0 SJM0CA046GB
TEMP CYCLE, 5' RAMP, 10' DWELL	0805	MAX4944ELA+T	-65C TO 150C	1000	CYS	290	0 SY91D3044AB
TEMP CYCLE, 5' RAMP, 10' DWELL	0805	MAX4944ELA+T	-65C TO 150C	1000	CYS	289	0 SY91D3044AC
TEMP CYCLE, 5' RAMP, 10' DWELL	0807	MAX16836ATE+	-65C TO 150C	1000	CYS	80	0 SG1ZEQ001FA
TEMP CYCLE, 5' RAMP, 10' DWELL	0815	MAX8556ETE+	-65C TO 150C	881	CYS	76	0 SNA0HA030B
TEMP CYCLE, 5' RAMP, 10' DWELL	0815	MAX8556ETE+	-65C TO 150C	1000	CYS	76	0 SNAOHA030B
TEMP CYCLE, 5' RAMP, 10' DWELL	0825	MAX17061ETI+	-65C TO 150C	950	CYS	80	0 SHCYDA006E#
TEMP CYCLE, 5' RAMP, 10' DWELL	0833	MAX8857AETL+	-65C TO 150C	500	CYS	80	0 SGJZEA065BD
TEMP CYCLE, 15' RAMP, 15' DWELL	N/A	MAX8676EWJ+T	-40C TO +125C	1000	CYS	77	0 SHWZBQ001B
TEMP CYCLE, 5' RAMP, 10' DWELL	N/A	MAX8676EWJ+T	-65C TO 150C	500	CYS	77	0 SHWZBQ001B
TEMP CYCLE, 15' RAMP, 15' DWELL	N/A	MAX8676EWJ+T	-40C TO +125C	1000	CYS	77	0 SHWZBQ001C
TEMP CYCLE, 5' RAMP, 10' DWELL	N/A	MAX8676EWJ+T	-65C TO 150C	500	CYS	77	0 SHWZBQ001C

TEMP CYCLE, 15' RAMP, 15' DWELL	N/A	MAX8676EWJ+T	-40C TO +125C	1000	CYS	73	0	SHWZBQ001D
TEMP CYCLE, 5' RAMP, 10' DWELL	N/A	MAX8676EWJ+T	-65C TO 150C	500	CYS	77	0	SHWZBQ001D
TEMP CYCLE, 5' RAMP, 5' DWELL	N/A	MAX8697SEWQ+T	-20C to +125C	700	CYS	76	0	SKQYBY001A
TEMP CYCLE, 5' RAMP, 10' DWELL	N/A	MAX4909EWC+T	-65C TO 150C	500	CYS	77	0	SK41A4002E
TEMP CYCLE, 5' RAMP, 10' DWELL	N/A	MAX4909EWC+T	-65C TO 150C	500	CYS	77	0	SK41A4002GA

Total: 0

FAILURE RATE: MTTF (YRS): 189927 FITS: 0.6