



5/9/2009

RELIABILITY MONITOR REPORT  
FOR

**Epson 0.4 $\mu$ 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:

MAX1785EUU+	MAX8611VETM	MAX8676ELB+G	MAX8680ETL+	MAX8695PELR+
MAX8857AETL+	MAX8908EWA+	MAX8909CETM		

The calculated failure rate for devices using this process is:

**FAILURE RATE:**                      **MTTF (YRS): 63246**                      **FITS: 1.8**

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:                      Epson 0.4µm Silicon Gate CMOS

**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE		MAX1785EUU+	135C	192 HRS	80	0	EK61GA004F#
HIGH TEMP OP LIFE		MAX1785EUU+	135C	500 HRS	80	0	EU61GA004F#
HIGH TEMP OP LIFE	0752	MAX8680ETL+	135C	1000 HRS	69	0	ECHZHQ002B
HIGH TEMP OP LIFE	0806	MAX8857AETL+	135C	500 HRS	80	0	EGJZFQ001C
HIGH TEMP OP LIFE	0808	MAX8611VETM+	135C	1000 HRS	71	0	EVZ4FA004A
HIGH TEMP OP LIFE	0808	MAX8611VETM+	135C	1000 HRS	69	0	EVZ4FA005A
HIGH TEMP OP LIFE	0822	MAX8909CETM	135C	192 HRS	48	0	EMUZCQ001B#
HIGH TEMP OP LIFE	0840	MAX8857AETL+	135C	192 HRS	48	0	EGJZFA060C#
<b>Total:</b>						<b>0</b>	

**STORAGE LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	0806	MAX8857AETL+	150C	500 HRS	80	0	EGJZFQ001C
STORAGE LIFE	0808	MAX8611VETM+	150C	1000 HRS	80	0	EVZ4FA004A
STORAGE LIFE	0808	MAX8611VETM+	150C	1000 HRS	80	0	EVZ4FA005A
STORAGE LIFE	0818	MAX8695PELR+	150C	500 HRS	77	0	EW61GA004Q1
STORAGE LIFE	0818	MAX8695PELR+	150C	500 HRS	77	0	EW61GA004Q3
<b>Total:</b>						<b>0</b>	

**TEMPERATURE CYCLE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 15' RAMP, 15' DWELL		MAX8908EWA+T	-40C TO +125C	500 CYS	76	0	ENNZCQ001D

TEMP CYCLE, 5' RAMP, 10' DWELL	0806	MAX8857AETL+	-65C TO 150C	1000	CYS	80	0	EGJZFG001C
TEMP CYCLE, 5' RAMP, 10' DWELL	0806	MAX8857AETL+	-65C TO 150C	800	CYS	79	0	EGTZFG001C
TEMP CYCLE, 5' RAMP, 10' DWELL	0806	MAX8857AETL+	-65C TO 150C	1000	CYS	79	0	EGTZFG001C
TEMP CYCLE, 5' RAMP, 10' DWELL	0808	MAX8611VETM+	-65C TO 150C	1000	CYS	80	0	EVZ4FA004A
TEMP CYCLE, 5' RAMP, 10' DWELL	0808	MAX8611VETM+	-65C TO 150C	1000	CYS	80	0	EVZ4FA005A
TEMP CYCLE, 5' RAMP, 10' DWELL	0817	MAX8676ELB+G104	-65C TO 150C	1000	CYS	87	0	EAWZEA212Q1
TEMP CYCLE, 5' RAMP, 10' DWELL	0817	MAX8676ELB+G104	-65C TO 150C	1000	CYS	86	0	EAWZEA212Q2
TEMP CYCLE, 5' RAMP, 10' DWELL	0817	MAX8676ELB+G104	-65C TO 150C	1000	CYS	87	0	EAWZEA212Q3
TEMP CYCLE, 5' RAMP, 10' DWELL	0818	MAX8695PELR+	-65C TO 150C	500	CYS	97	0	EW61GA004Q1
TEMP CYCLE, 5' RAMP, 10' DWELL	0818	MAX8695PELR+	-65C TO 150C	500	CYS	97	0	EW61GA004Q2
TEMP CYCLE, 5' RAMP, 10' DWELL	0818	MAX8695PELR+	-65C TO 150C	500	CYS	97	0	EW61GA004Q3
TEMP CYCLE, 5' RAMP, 10' DWELL	N/A	MAX8908EWA+T	-65C TO 150C	300	CYS	77	0	ENNZCQ001E
<b>Total:</b>							<b>0</b>	

**FAILURE RATE:**

**MTTF (YRS): 63246**

**FITS: 1.8**