



5/9/2009

RELIABILITY MONITOR REPORT
FOR

Epson 0.4 μ m Silicon Gate CMOS

MAXIM Integrated Products

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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+	MAX1786EUI+	MAX8611VETM	MAX8676ELB+G	MAX8680ETL+
MAX8682ETM+	MAX8695PELR+	MAX8857AETL+	MAX8908EWA+	MAX8909CETM

The calculated failure rate for devices using this process is:

FAILURE RATE: **MTTF (YRS): 74792** **FITS: 1.5**

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 4/1/2008 and 3/31/2009 .

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	1000 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	0821	MAX8682ETM+	135C	192 HRS	25	0	EGTZDQ002BQ
HIGH TEMP OP LIFE	0822	MAX8909CETM	135C	192 HRS	48	0	EMUZCQ001B#
HIGH TEMP OP LIFE	0840	MAX8857AETL+	135C	192 HRS	48	0	EGJZFA060C#
HIGH TEMP OP LIFE	0849	MAX1785EUU+	135C	192 HRS	80	0	E1X61GA006J
Total:						0	

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
STORAGE LIFE	0838	MAX1785EUU+	150C	1000 HRS	79	0	EX6IGA004F#
STORAGE LIFE	0905	MAX1786EUI+	150C	500 HRS	80	0	EI0YFA004D

STORAGE LIFE	0905	MAX1786EUI+	150C	500	HRS	80	0	EI0YFA005E
					Total:		0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	0806	MAX8857AETL+	-65C TO 150C	1000	CYS	80	0 EGJZFQ001C
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	0838	MAX1785EUI+	-65C TO 150C	1000	CYS	80	0 EK61GA004F#
TEMP CYCLE, 5' RAMP, 10' DWELL	0905	MAX1786EUI+	-65C TO 150C	500	CYS	80	0 EI0YFA004D
TEMP CYCLE, 5' RAMP, 10' DWELL	0905	MAX1786EUI+	-65C TO 150C	500	CYS	80	0 EI0YFA005E
TEMP CYCLE, 15' RAMP, 15' DWELL	N/A	MAX8908EWA+T	-40C TO +125C	700	CYS	65	0 ENNZCQ001C
TEMP CYCLE, 5' RAMP, 10' DWELL	N/A	MAX8908EWA+T	-65C TO 150C	300	CYS	77	0 ENNZCQ001E
TEMP CYCLE, 15' RAMP, 15' DWELL	N/A	MAX8908EWA+T	-40C TO +125C	700	CYS	76	0 ENNZCQ001E
TEMP CYCLE, 15' RAMP, 15' DWELL	N/A	MAX8908EWA+T	-40C TO +125C	400	CYS	38	0 ENNZCQ002A

Total: 0

FAILURE RATE: MTTF (YRS): 74792 FITS: 1.5