



5/9/2009

RELIABILITY MONITOR REPORT
FOR

TSMC 0.35 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:

MAX1422ECM+	MAX1446EHJ+	MAX4751EGE+	MAX7033EUI+	MAX7034AUI+
MAX9246EUM+	MAX9257GTL+			

The calculated failure rate for devices using this process is:

FAILURE RATE: **MTTF (YRS): 23276** **FITS: 4.9**

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 and

Process Information:

Process Description: TSMC 0.35µm Silicon Gate CMOS

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	0737	MAX1446EHJ+	135C	1000 HRS	78	0	Q43CCA016C#
HIGH TEMP OP LIFE	0742	MAX9257GTL+	135C	192 HRS	55	0	QGFZCQ001EQ
HIGH TEMP OP LIFE	0804	MAX7034AUI+	135C	700 HRS	45	0	QINZAQ003D#
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	0737	MAX1446EHJ+	150C	1000 HRS	43	0	Q43CCA016C#
STORAGE LIFE	0801	MAX9246EUM+	150C	1000 HRS	44	0	QR32AA005E#
STORAGE LIFE	0804	MAX7034AUI+	150C	1000 HRS	80	0	QINZAQ003D#
STORAGE LIFE	0818	MAX7033EUI+	150C	1000 HRS	80	0	QPM0BA006Q1
STORAGE LIFE	0818	MAX7033EUI+	150C	1000 HRS	79	0	QPM0BA006Q2
STORAGE LIFE	0818	MAX7033EUI+	150C	1000 HRS	79	0	QPM0BA006Q3
STORAGE LIFE	0819	MAX9246EUM+	150C	1000 HRS	80	0	QR32AA007Q1
STORAGE LIFE	0819	MAX9246EUM+	150C	500 HRS	80	0	QR32AA007Q2
STORAGE LIFE	0819	MAX9246EUM+	150C	1000 HRS	80	0	QR32AA007Q32
STORAGE LIFE	0819	MAX9246EUM+	150C	1000 HRS	80	0	QR32AA007Q3
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	073	MAX1446EHJ+	-65C TO 150C	1000 CYS	80	0	Q43CCA016C#

TEMP CYCLE, 5' RAMP, 10' DWELL	0804	MAX7034AUI+	-65C TO 150C	500	CYS	80	0	QINZAQ003D#
TEMP CYCLE, 5' RAMP, 10' DWELL	0818	MAX4751EGE+	-65C TO 150C	497	CYS	77	0	Q7T0CA038AD
TEMP CYCLE, 5' RAMP, 10' DWELL	0818	MAX4751EGE+	-65C TO 150C	497	CYS	77	0	Q7T0CA038AE
TEMP CYCLE, 5' RAMP, 10' DWELL	0818	MAX4751EGE+	-65C TO 150C	497	CYS	77	0	Q7T0CA038AF
TEMP CYCLE, 5' RAMP, 10' DWELL	0818	MAX7033EUI+	-65C TO 150C	900	CYS	80	0	QPM0BA006Q1
TEMP CYCLE, 5' RAMP, 10' DWELL	0818	MAX7033EUI+	-65C TO 150C	900	CYS	80	0	QPM0BA006Q2
TEMP CYCLE, 5' RAMP, 10' DWELL	0818	MAX7033EUI+	-65C TO 150C	900	CYS	80	0	QPM0BA006Q3
TEMP CYCLE, 5' RAMP, 10' DWELL	0819	MAX9246EUM+	-65C TO 150C	1000	CYS	80	0	QR32AA007Q1
TEMP CYCLE, 5' RAMP, 10' DWELL	0819	MAX9246EUM+	-65C TO 150C	1000	CYS	80	0	QR32AA007Q2
TEMP CYCLE, 5' RAMP, 10' DWELL	0819	MAX9246EUM+	-65C TO 150C	1000	CYS	80	0	QR32AA007Q3
TEMP CYCLE, 5' RAMP, 10' DWELL	0845	MAX1422ECM+	-65C TO 150C	500	CYS	77	0	Q4ACBQ002Q1
TEMP CYCLE, 5' RAMP, 10' DWELL	0845	MAX1422ECM+	-65C TO 150C	500	CYS	77	0	Q4ACBQ002Q2
TEMP CYCLE, 5' RAMP, 10' DWELL	0845	MAX1422ECM+	-65C TO 150C	500	CYS	77	0	Q4ACBQ002Q3

Total: 0

FAILURE RATE: MTTF (YRS): 23276 FITS: 4.9