



5/9/2009

**RELIABILITY MONITOR REPORT
FOR**

Dallas 0.8 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:

DS1230	DS1302	DS1814	MAX16053AUT+	MAX1792EUA18
MAX1802EHJ+	MAX1896EUT#G	MAX4364ESA+	MAX6424UK46+	MAX6710EUT
MAX6710EUT+	MAX9018BEKA	MAX9060EUK+	MAX9061EUK+	MAX9062EUK+
MAX9065EUK+	MAX9711ETC	MAX9711ETC+(

The calculated failure rate for devices using this process is:

FAILURE RATE: **MTTF (YRS): 26314** **FITS: 4.3**

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

Process Information:

Process Description: Dallas 0.8µm Silicon Gate CMOS

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	0732	MAX9018BEKA+	135C	1000 HRS	32	0	DER5NA010C#
HIGH TEMP OP LIFE	0749	MAX4364ESA+	135C	408 HRS	45	1	DD50EQ002L#
HIGH TEMP OP LIFE	0750	DS1302	125C, 5.5 VOLTS	1000 HRS	80	0	VJ801082ABA
HIGH TEMP OP LIFE	0804	MAX16053AUT+	135C	192 HRS	48	0	DLKYAA001DQ
HIGH TEMP OP LIFE	0805	MAX9065EUK+	135C	192 HRS	48	0	DKZUBA002CQ
HIGH TEMP OP LIFE	0806	MAX9062EUK+	135C	192 HRS	50	0	DKZXBA002AQ
HIGH TEMP OP LIFE	0806	MAX9061EUK+	135C	192 HRS	48	0	DKZYBA002BQ
HIGH TEMP OP LIFE	0806	MAX9060EUK+	135C	192 HRS	48	0	DKZZBQ002BQ
HIGH TEMP OP LIFE	0811	MAX6710EUT+	135C	1000 HRS	48	0	D6O2DA007Q1
HIGH TEMP OP LIFE	0811	MAX6710EUT	135C	1000 HRS	50	0	D6O2DA007Q2
HIGH TEMP OP LIFE	0811	MAX6710EUT+	135C	1000 HRS	49	0	D6O2DA007Q3
HIGH TEMP OP LIFE	0813	MAX6424UK46+	135C	192 HRS	80	0	D610DQ003G
HIGH TEMP OP LIFE	0818	MAX1792EUA18+	135C	138 HRS	79	0	DOKBEA010I#
Total:						1	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	0750	DS1302	150C	1000 HRS	77	0	VJ801082ABA
STORAGE LIFE	0810	DS1814	150C	1000 HRS	75	0	ZQ649015ARB

STORAGE LIFE	0810	DS1814	150C	1000	HRS	72	0	ZQ649015ASB
STORAGE LIFE	0811	MAX6710EUT+	150C	500	HRS	80	0	D6O2DA007Q1
STORAGE LIFE	0811	MAX6710EUT+	150C	1000	HRS	80	0	D6O2DA007Q2
STORAGE LIFE	0811	MAX6710EUT+	150C	1000	HRS	80	0	D6O2DA007Q3
STORAGE LIFE	0818	MAX1792EUA18+	150C	500	HRS	45	0	DOKBEA010I#
Total:							0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
TEMP CYCLE, 5' RAMP, 10' DWELL	0536	MAX9711ETC	-65C TO 150C	1000 CYS	989	0	DBI0DQ003E	
TEMP CYCLE, 5' RAMP, 10' DWELL	0741	MAX1802EHJ+	-65C TO 150C	1000 CYS	13	0	D66AC3008A#	
TEMP CYCLE, 5' RAMP, 10' DWELL	0742	MAX9711ETC+(AACB)	-65C TO 150C	1000 CYS	995	0	DBI0DA005C	
TEMP CYCLE, 5' RAMP, 10' DWELL	0749	MAX4364ESA+	-65C TO 150C	1000 CYS	80	0	DD50EQ002L#	
TEMP CYCLE, 5' RAMP, 10' DWELL	0750	DS1302	-55C TO 125C	1000 CYS	77	0	VJ801082ABA	
TEMP CYCLE, 5' RAMP, 10' DWELL	0810	DS1230	-40 TO 85C	1000 CYS	77	0	MG362516AAA-QAL	
TEMP CYCLE, 5' RAMP, 10' DWELL	0810	DS1230	-40 TO 85C	1000 CYS	77	0	MG362517AAA-QAL	
TEMP CYCLE, 5' RAMP, 10' DWELL	0810	DS1814	-55C TO 125C	1000 CYS	77	0	ZQ649015ARB	
TEMP CYCLE, 5' RAMP, 10' DWELL	0810	DS1814	-55C TO 125C	1000 CYS	77	0	ZQ649015ASB	
TEMP CYCLE, 5' RAMP, 10' DWELL	0810	MAX1802EHJ+	-65C TO 150C	1000 CYS	77	0	D66AC3008Q1	
TEMP CYCLE, 5' RAMP, 10' DWELL	0810	MAX1802EHJ+	-65C TO 150C	497 CYS	77	0	D66AC3008Q2	
TEMP CYCLE, 5' RAMP, 10' DWELL	0811	MAX6710EUT+	-65C TO 150C	500 CYS	80	0	D6O2DA007Q2	
TEMP CYCLE, 5' RAMP, 10' DWELL	0811	MAX6710EUT+	-65C TO 150C	1000 CYS	80	0	D6O2DA007Q1	
TEMP CYCLE, 5' RAMP, 10' DWELL	0811	MAX6710EUT+	-65C TO 150C	1000 CYS	80	0	D6O2DA007Q3	
TEMP CYCLE, 5' RAMP, 10' DWELL	0818	MAX1792EUA18+	-65C TO 150C	500 CYS	80	0	DOKBEA010I#	
TEMP CYCLE, 5' RAMP, 10' DWELL	0834	MAX1896EUT#G16	-65C TO 150C	500 CYS	80	0	D2X0DA006D	
Total:							0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
BIASED MOISTURE	0750	DS1302	85/85, 5.5 VOLTS	1000 HRS	77	0	VJ801082ABA
HAST	0810	DS1814	130C, 85%R.H.,5.0V	100 HRS	79	0	ZQ649015ARB

HAST	0810	DS1814	130C, 85%R.H.,5.0V	100	HRS	79	0	ZQ649015ASB
Total:							0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HAST, NO BIAS	0750	DS1302	130C, 85% R.H.	96	HRS	77	0 VJ801082ABA
MOISTURE SOAK	0810	DS1230	60C/90% R.H.	1000	HRS	77	0 MG362516AAA-QAL
MOISTURE SOAK	0810	DS1230	60C/90% R.H.	1000	HRS	77	0 MG362517AAA-QAL
HAST, NO BIAS	0810	DS1814	130C, 85% R.H.	100	HRS	77	0 ZQ649015ARB
HAST, NO BIAS	0810	DS1814	130C, 85% R.H.	100	HRS	77	0 ZQ649015ASB
MOISTURE SOAK	0811	MAX6710EUT+	85 C/85% R.H.	1000	HRS	46	0 D6O2DA007Q1
MOISTURE SOAK	0811	MAX6710EUT+	85 C/85% R.H.	1000	HRS	45	0 D6O2DA007Q2
MOISTURE SOAK	0811	MAX6710EUT+	85 C/85% R.H.	500	HRS	50	0 D602DA007Q3
MOISTURE SOAK	0811	MAX6710EUT+	85 C/85% R.H.	1000	HRS	45	0 D6O2DA007Q3
Total:							0

FAILURE RATE:

MTTF (YRS): 26314

FITS: 4.3