

4/17/2013



**RELIABILITY MONITOR REPORT
FOR**

MFN 0.8 μ m Silicon Gate CMOS (B8)

MAXIM INTEGRATED

**160 RIO ROBLES
SAN JOSE, CA 95134**

**This Report was prepared by
MAXIM INTEGRATED 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:

MAX1792EUA33	MAX1792EUA33	MAX4845DEYT	MAX4845DEYT	MAX6414UK46+
MAX6418UK46+	MAX6421XS48+	MAX6422XS26+	MAX6423XS29+	MAX6673AXK+
MAX6896AAZT/	MAX803LEXR+	MAX803TEXR+	MAX8520ETP+	MAX8655ETN+
MAX8888EZK18	MAX9017AEKA	MXD1816XR29+		

The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 144174 QUANTITY: 1005 FAILS: 0 FITS: 0.8

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 4/1/2012 and 3/31/2013 .

Process Information:

Process Description: MFN 0.8µm Silicon Gate CMOS (B8)

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1042	MAX6423XS29+	135°C	1000 HRS	80	0	J612EA005I#
HIGH TEMP OP LIFE	1133	MAX8520ETP+	135°C	1000 HRS	29	0	JMX0FA040Q1
HIGH TEMP OP LIFE	1133	MAX8520ETP+	135°C	500 HRS	29	0	JMX0FA040Q2
HIGH TEMP OP LIFE	1133	MAX8520ETP+	135°C	500 HRS	29	0	JMX0FA040Q3
HIGH TEMP OP LIFE	1135	MAX9017AEKA+	135°C	1000 HRS	93	0	JER0CA032FA
HIGH TEMP OP LIFE	1144	MAX8655ETN+	135°C	1000 HRS	41	0	BA1TABTB
HIGH TEMP OP LIFE	1148	MAX6421XS48+T	135°C	1000 HRS	80	0	J610EA015G#
HIGH TEMP OP LIFE	1150	MAX8655ETN+	135°C	1000 HRS	77	0	BA1TABQ7
HIGH TEMP OP LIFE	1150	MAX8655ETN+	135°C	500 HRS	77	0	BA1TABQ8
HIGH TEMP OP LIFE	1151	MAX4845DEYT+T	135°C	1000 HRS	44	0	JYW7BA033Q1
HIGH TEMP OP LIFE	1151	MAX4845DEYT+T	135°C	1000 HRS	43	0	JYW7BA033Q2
HIGH TEMP OP LIFE	1151	MAX4845DEYT+T	135°C	1000 HRS	43	0	JYW7BA033Q3
HIGH TEMP OP LIFE	1201	MAX6422XS26+T	135°C	1000 HRS	78	0	J611EA017C#
HIGH TEMP OP LIFE	1207	MAX9017AEKA+	135°C	1000 HRS	90	0	JER0C3038AA
HIGH TEMP OP LIFE	1210	MAX4845DEYT+	135°C	1000 HRS	43	0	JYW7BA036Q1
HIGH TEMP OP LIFE	1210	MAX4845DEYT+	135°C	1000 HRS	43	0	JYW7BA036Q2
HIGH TEMP OP LIFE	1210	MAX4845DEYT+	135°C	500 HRS	43	0	JYW7BA036Q3
HIGH TEMP OP LIFE	1210	MAX4845DEYT+	135°C	1000 HRS	43	0	R25922FL1A

Total: 0

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1033	MAX6423XS29+	150°C	1000 HRS	50	0	J612EA005F#
STORAGE LIFE	1148	MAX6421XS48+T	150°C	1000 HRS	50	0	J610EA015G#
STORAGE LIFE	1201	MAX6422XS26+T	150°C	1000 HRS	50	0	J611EA017C#
STORAGE LIFE	1202	MAX803LEXR+	150°C	1000 HRS	50	0	J5RAFA016C#
STORAGE LIFE	1211	MAX4845DEYT+T	150°C	1000 HRS	80	0	JYW7BA036Q4
STORAGE LIFE	1211	MAX4845DEYT+T	150°C	1000 HRS	80	0	JYW7BA036Q5
STORAGE LIFE	1211	MAX4845DEYT+T	150°C	1000 HRS	80	0	JYW7BA036Q6
STORAGE LIFE	1223	MAX803TEXR+	150°C	1000 HRS	50	0	J5RCFA014LA
STORAGE LIFE	1231	MAX1792EUA33+	150°C	500 HRS	50	0	JOKAFA037CB
STORAGE LIFE	1231	MXD1816XR29+	150°C	500 HRS	50	0	J4S5EA012B#
STORAGE LIFE	1237	MAX8888EZK18/V+T	150°C	500 HRS	45	0	JUK1BA010GA
STORAGE LIFE	1240	MAX6896AAZT/V+	150°C	1000 HRS	45	0	JIABBA044JA
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	1211	MAX4845DEYT+T	-65C TO 150C	1000 CYS	80	0	JYW7BA036Q4
TEMP CYCLE, 5' RAMP, 10' DWELL	1211	MAX4845DEYT+	-65C TO 150C	1000 CYS	80	0	JYW7BA036Q5
TEMP CYCLE, 5' RAMP, 10' DWELL	1211	MAX4845DEYT+T	-65C TO 150C	1000 CYS	80	0	JYW7BA036Q6
TEMP CYCLE, 5' RAMP, 10' DWELL	1223	MAX803TEXR+	-65C TO 150C	500 CYS	80	0	J5RCFA014LA
TEMP CYCLE, 5' RAMP, 10' DWELL	1231	MAX1792EUA33/V+	-65C TO 150C	500 CYS	80	0	JOKAFA037CB
TEMP CYCLE, 5' RAMP, 10' DWELL	1231	MAX1792EUA33/V+	-65C TO 150C	500 CYS	80	0	JOKAFA037CA
TEMP CYCLE, 5' RAMP, 10' DWELL	1231	MAX1792EUA33/V+	-65C TO 150C	500 CYS	80	0	JOKAFA037CC
TEMP CYCLE, 5' RAMP, 10' DWELL	1235	MAX6673AXK+	-65C TO 150C	500 CYS	80	0	J3Q1DQ002MB
TEMP CYCLE, 5' RAMP, 10' DWELL	1237	MAX8888EZK18/V+T	-65C TO 150C	500 CYS	77	0	JUK1BA010GA
TEMP CYCLE, 5' RAMP, 10' DWELL	1240	MAX6896AAZT/V+	-65C TO 150C	500 CYS	80	0	JIABBA044JA
TEMP CYCLE, 5' RAMP, 10' DWELL	1240	MAX6896AAZT/V+	-65C TO 150C	500 CYS	80	0	JIABBA044JB
TEMP CYCLE, 5' RAMP, 10' DWELL	1240	MAX6896AAZT/V+	-65C TO 150C	500 CYS	80	0	JIABBA044JC
Total:						0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
BIASED MOISTURE	1013	MAX6418UK46+	130C, 85% R.H.	100	HRS	80	0	J8K6EA005E#
BIASED MOISTURE	1028	MAX9017AEKA+	130C, 85% R.H.	100	HRS	32	0	JER0CA011A#
BIASED MOISTURE	1113	MAX6414UK46+	130C, 85% R.H.	100	HRS	80	0	J8K2EA046C#
BIASED MOISTURE	1223	MAX803TEXR+	130C, 85% R.H.	100	HRS	80	0	J5RCFA014LA
BIASED MOISTURE	1231	MAX1792EUA33/V+	130C, 85% R.H.	100	HRS	80	0	JOKAFA037CA
BIASED MOISTURE	1231	MAX1792EUA33/V+	130C, 85% R.H.	100	HRS	79	0	JOKAFA037CC
BIASED MOISTURE	1235	MAX6673AXK+	130C, 85% R.H.	100	HRS	80	0	J3Q1DQ002MB
BIASED MOISTURE	1237	MAX8888EZK18/V+T	130C, 85% R.H.	100	HRS	77	0	JUK1BA010GA
BIASED MOISTURE	1237	MAX8888EZK18/V+T	130C, 85% R.H.	96	HRS	77	0	JUK1BA010GC
BIASED MOISTURE	1240	MAX6896AAZT/V+	130C, 85% R.H.	100	HRS	80	0	JIABBA044JA
BIASED MOISTURE	1240	MAX6896AAZT/V+	130C, 85% R.H.	100	HRS	79	0	JIABBA044JB
BIASED MOISTURE	1240	MAX6896AAZT/V+	130C, 85% R.H.	100	HRS	80	0	JIABBA044JC
Total:						0		

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
MOISTURE SOAK	1028	MAX9017AEKA+	130C, 85% R.H.	96	HRS	80	0	JER0CA011A#
MOISTURE SOAK	1047	MAX9017AEKA+	130C, 85% R.H.	96	HRS	80	0	JER0CA011BA
MOISTURE SOAK	1114	MAX9017AEKA+	130C, 85% R.H.	96	HRS	80	0	JER0CA023B#
MOISTURE SOAK	1231	MAX1792EUA33/V+	130C, 85% R.H.	100	HRS	80	0	JOKAFA037CA
MOISTURE SOAK	1231	MAX1792EUA33/V+	130C, 85% R.H.	100	HRS	80	0	JOKAFA037CC
MOISTURE SOAK	1235	MAX6673AXK+	130C, 85% R.H.	96	HRS	80	0	J3Q1DQ002MB
MOISTURE SOAK	1237	MAX8888EZK18/V+T	130C, 85% R.H.	96	HRS	77	0	JUK1BA010GA
MOISTURE SOAK	1240	MAX6896AAZT/V+	130C, 85% R.H.	100	HRS	80	0	JIABBA044JA
MOISTURE SOAK	1240	MAX6896AAZT/V+	130C, 85% R.H.	100	HRS	80	0	JIABBA044JB

MOISTURE SOAK 1240 MAX6896AAZT/V+ 130C, 85% 100 HRS 80 0 JIABBA044JC
R.H.

Total: **0**

FAILURE RATE: **MTTF (YRS): 144174** **QUANTITY: 1005** **FAILS: 0** **FITS: 0.8**