

4/16/2014



**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:

MAX14781EESA	MAX14783EAT	MAX14784EAS	MAX4364ESA+	MAX4845DEY+
MAX4845DEYT	MAX5961ETM+	MAX8505EEE+	MAX8880EUT+	MXD1816XR29+

The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 107855 QUANTITY: 888 FAILS: 0 FITS: 1.1

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 4/1/2013 and 3/31/2014 .

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	1151	MAX4845DEYT+T	135°C	1000 HRS	36	0	JYW7BA033Q3
HIGH TEMP OP LIFE	1210	MAX4845DEY+	135°C	1000 HRS	32	0	JYW7BA036Q1
HIGH TEMP OP LIFE	1210	MAX4845DEY+	135°C	1000 HRS	34	0	JYW7BA036Q2
HIGH TEMP OP LIFE	1323	MAX14783EATA+	135°C	192 HRS	32	0	JAMI3Q001JQ
HIGH TEMP OP LIFE	1323	MAX14783EATA+	135°C	192 HRS	48	0	JAMI3Q001HQ
HIGH TEMP OP LIFE	1333	MAX8880EUT+T	135°C	500 HRS	77	0	J7GAIA111Q1
HIGH TEMP OP LIFE	1333	MAX8880EUT+T	135°C	1000 HRS	76	0	J7GAIA111Q1
HIGH TEMP OP LIFE	1333	MAX8880EUT+T	135°C	500 HRS	77	0	J7GAIA111Q2
HIGH TEMP OP LIFE	1333	MAX8880EUT+T	135°C	1000 HRS	77	0	J7GAIA111Q2
HIGH TEMP OP LIFE	1333	MAX8880EUT+T	135°C	1000 HRS	77	0	J7GAIA111Q3
HIGH TEMP OP LIFE	1338	MAX14781EESA+	135°C	192 HRS	80	0	JANC3Q002CQ
HIGH TEMP OP LIFE	1345	MAX14784EASD+	135°C	192 HRS	48	0	JAPE4Q001BQ
HIGH TEMP OP LIFE	1345	MAX14784EASD+	135°C	192 HRS	32	0	JAPE4Q001DQ
HIGH TEMP OP LIFE	N/A	MAX5961ETM+	135°C	500 HRS	38	0	JADL9A079Q1
HIGH TEMP OP LIFE	N/A	MAX5961ETM+	135°C	500 HRS	42	0	JADL9A079Q2
HIGH TEMP OP LIFE	N/A	MAX5961ETM+	135°C	500 HRS	41	0	JADL9A079Q3
HIGH TEMP OP LIFE	N/A	MAX5961ETM+	135°C	1000 HRS	41	0	JADL9A079Q3
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1231	MXD1816XR29+	150°C	1000 HRS	50	0	J4S5EA012B#
STORAGE LIFE	1333	MAX8880EUT+T	150°C	1000 HRS	80	0	J7GAIA111Q1

STORAGE LIFE	1333	MAX8880EUT+T	150°C	1000 HRS	80	0	J7GAIA111Q2
STORAGE LIFE	1333	MAX8880EUT+T	150°C	1000 HRS	80	0	J7GAIA111Q3
STORAGE LIFE	1340	MAX4364ESA+CGL	150°C	1000 HRS	50	0	JD50FA032Q1
STORAGE LIFE	1341	MAX4364ESA+CGL	150°C	1000 HRS	50	0	JD50FA032Q2
STORAGE LIFE	1341	MAX4364ESA+CGL	150°C	500 HRS	50	0	JD50FA032Q3
STORAGE LIFE	1341	MAX4364ESA+CGL	150°C	1000 HRS	50	0	JD50FA032Q3
STORAGE LIFE	1347	MAX8505EEE+	150°C	1000 HRS	80	0	JKK0IA058G
STORAGE LIFE	1347	MAX8505EEE+	150°C	1000 HRS	80	0	JKK0IA059GA
STORAGE LIFE	1347	MAX8505EEE+	150°C	1000 HRS	80	0	JKK0IA059GB
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	1231	MXD1816XR29+	-65C TO 150C	500 CYS	80	0	J4S5EA012B#
TEMP CYCLE, 5' RAMP, 10' DWELL	1333	MAX8880EUT+T	-65C TO 150C	1000 CYS	80	0	J7GAIA111Q1
TEMP CYCLE, 5' RAMP, 10' DWELL	1333	MAX8880EUT+T	-65C TO 150C	1000 CYS	80	0	J7GAIA111Q2
TEMP CYCLE, 5' RAMP, 10' DWELL	1333	MAX8880EUT+T	-65C TO 150C	1000 CYS	80	0	J7GAIA111Q3
TEMP CYCLE, 5' RAMP, 10' DWELL	1340	MAX4364ESA+CGL	-65C TO 150C	500 CYS	84	0	JD50FA032Q1
TEMP CYCLE, 5' RAMP, 10' DWELL	1340	MAX4364ESA+CGL	-65C TO 150C	1000 CYS	79	0	JD50FA032Q1
TEMP CYCLE, 5' RAMP, 10' DWELL	1341	MAX4364ESA+CGL	-65C TO 150C	500 CYS	89	0	JD50FA032Q2
TEMP CYCLE, 5' RAMP, 10' DWELL	1341	MAX4364ESA+CGL	-65C TO 150C	1000 CYS	84	0	JD50FA032Q2
TEMP CYCLE, 5' RAMP, 10' DWELL	1341	MAX4364ESA+CGL	-65C TO 150C	500 CYS	85	0	JD50FA032Q3
TEMP CYCLE, 5' RAMP, 10' DWELL	1341	MAX4364ESA+CGL	-65C TO 150C	1000 CYS	80	0	JD50FA032Q3
TEMP CYCLE, 5' RAMP, 10' DWELL	1347	MAX8505EEE+	-65C TO 150C	1000 CYS	80	0	JKK0IA058G
TEMP CYCLE, 5' RAMP, 10' DWELL	1347	MAX8505EEE+	-65C TO 150C	1000 CYS	80	0	JKK0IA058GA
TEMP CYCLE, 5' RAMP, 10' DWELL	1347	MAX8505EEE+	-65C TO 150C	1000 CYS	80	0	JKK0IA058GB
Total:						0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
BIASED MOISTURE	1340	MAX4364ESA+CGL	130C, 85% R.H.	100 HRS	80	0	JD50FA032Q1
BIASED MOISTURE	1341	MAX4364ESA+CGL	130C, 85% R.H.	100 HRS	80	0	JD50FA032Q2

BIASED MOISTURE	1341	MAX4364ESA+CGL	130C, 85% R.H.	100	HRS	80	0	JD50FA032Q3
Total:							0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
MOISTURE SOAK	1333	MAX8880EUT+T	130C, 85% R.H.	1000	HRS	80	0 J7GAIA111Q1
MOISTURE SOAK	1333	MAX8880EUT+T	85 C/85% R.H.	1000	HRS	45	0 J7GAIA111Q1
MOISTURE SOAK	1333	MAX8880EUT+T	130C, 85% R.H.	1000	HRS	80	0 J7GAIA111Q2
MOISTURE SOAK	1333	MAX8880EUT+T	85 C/85% R.H.	1000	HRS	45	0 J7GAIA111Q2
MOISTURE SOAK	1333	MAX8880EUT+T	130C, 85% R.H.	1000	HRS	80	0 J7GAIA111Q3
MOISTURE SOAK	1333	MAX8880EUT+T	85 C/85% R.H.	1000	HRS	45	0 J7GAIA111Q3
MOISTURE SOAK	1340	MAX4364ESA+CGL	130C, 85% R.H.	100	HRS	80	0 JD50FA032Q1
MOISTURE SOAK	1341	MAX4364ESA+CGL	130C, 85% R.H.	100	HRS	80	0 JD50FA032Q2
MOISTURE SOAK	1341	MAX4364ESA+CGL	130C, 85% R.H.	100	HRS	80	0 JD50FA032Q3
Total:							0

FAILURE RATE: MTF (YRS): 107855 QUANTITY: 888 FAILS: 0 FITS: 1.1