



4/8/2009

**RELIABILITY MONITOR REPORT
FOR**

MFN Dual Poly NPN Bipolar

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:

MAX2102CWI+	MAX2104CCM	MAX2104CCM+	MAX2130EUA+	MAX2204EXK+
MAX2208ECM	MAX2208ECM+	MAX3782UGK	MAX3790CCQ	

The calculated failure rate for devices using this process is:

FAILURE RATE: **MTTF (YRS): 74679** **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 7/1/2007 and 6/30/2008 .

Process Information:

Process Description: MFN Dual Poly NPN Bipolar

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	0708	MAX2204EXK+	135C	192 HRS	50	0	NECZBQ001BQ
HIGH TEMP OP LIFE	0724	MAX3790CCQ	135C	1000 HRS	77	0	NIUFA3177A
HIGH TEMP OP LIFE	0729	MAX3782UGK	135C	1000 HRS	37	0	N9N0BA113B
HIGH TEMP OP LIFE	0730	MAX2102CWI+	135C	1000 HRS	45	0	NJKAPQ001Q1
HIGH TEMP OP LIFE	0730	MAX2102CWI+	135C	1000 HRS	45	0	NJKAPQ001Q2
HIGH TEMP OP LIFE	0730	MAX2102CWI+	135C	1000 HRS	44	0	NJKAPQ001Q3
HIGH TEMP OP LIFE	0740	MAX2208ECM+	135C	408 HRS	79	0	N273EA383BD
HIGH TEMP OP LIFE	0740	MAX2208ECM+	135C	620 HRS	79	0	N273EA495BB
HIGH TEMP OP LIFE	0814	MAX2130EUA+	135C	1000 HRS	48	0	N3OAD3004J#
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	0729	MAX3782UGK	150C	1000 HRS	80	0	N9N0BA113B
STORAGE LIFE	0730	MAX2102CWI+	150C	1000 HRS	45	0	NJKAPQ001Q1
STORAGE LIFE	0730	MAX2102CWI+	150C	1000 HRS	45	0	NJKAPQ001Q2
STORAGE LIFE	0730	MAX2102CWI+	150C	1000 HRS	45	0	NJKAPQ001Q3
STORAGE LIFE	0731	MAX2104CCM+	150C	1000 HRS	45	0	NS5ANA039QA
STORAGE LIFE	0731	MAX2104CCM	150C	1000 HRS	45	0	NS5ANA039QC
STORAGE LIFE	0740	MAX2208ECM+	150C	500 HRS	120	0	N273EA383B
STORAGE LIFE	0740	MAX2208ECM+	150C	500 HRS	120	0	N273EA495B

Total: 0

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	0724	MAX3790CCQ	-65C TO 150C	500 CYS	77	0	NIUFA3177A
TEMP CYCLE, 5' RAMP, 10' DWELL	0724	MAX3790CCQ	-65C TO 150C	1000 CYS	77	0	NIUFA3177A
TEMP CYCLE, 5' RAMP, 10' DWELL	0729	MAX3782UGK	-65C TO 150C	1000 CYS	80	0	N9N0BA113B
TEMP CYCLE, 5' RAMP, 10' DWELL	0730	MAX2102CWI+	-65C TO 150C	500 CYS	77	0	NJKAPQ001Q1
TEMP CYCLE, 5' RAMP, 10' DWELL	0730	MAX2102CWI+	-65C TO 150C	500 CYS	77	0	NJKAPQ001Q2
TEMP CYCLE, 5' RAMP, 10' DWELL	0730	MAX2102CWI+	-65C TO 150C	500 CYS	77	0	NJKAPQ001Q3
TEMP CYCLE, 5' RAMP, 10' DWELL	0731	MAX2104CCM+	-65C TO 150C	500 CYS	77	0	NS5ANA039QA
TEMP CYCLE, 5' RAMP, 10' DWELL	0731	MAX2104CCM+	-65C TO 150C	500 CYS	77	0	NS5ANA039QB
TEMP CYCLE, 5' RAMP, 10' DWELL	0731	MAX2104CCM+	-65C TO 150C	500 CYS	77	0	NS5ANA039QC
TEMP CYCLE, 5' RAMP, 10' DWELL	0732	MAX2130EUA+	-65C TO 150C	500 CYS	77	0	N30ADQ001Q4
TEMP CYCLE, 5' RAMP, 10' DWELL	0732	MAX2130EUA+	-65C TO 150C	1000 CYS	77	0	N3OADQ001Q4
TEMP CYCLE, 5' RAMP, 10' DWELL	0732	MAX2130EUA+	-65C TO 150C	500 CYS	77	0	N30ADQ002Q5
TEMP CYCLE, 5' RAMP, 10' DWELL	0732	MAX2130EUA+	-65C TO 150C	1000 CYS	77	0	N3OADQ002Q5
TEMP CYCLE, 5' RAMP, 10' DWELL	0732	MAX2130EUA+	-65C TO 150C	500 CYS	77	0	N30ADQ002Q6
TEMP CYCLE, 5' RAMP, 10' DWELL	0732	MAX2130EUA+	-65C TO 150C	1000 CYS	77	0	N3OADQ002Q6
TEMP CYCLE, 5' RAMP, 10' DWELL	0740	MAX2208ECM+	-65C TO 150C	1000 CYS	80	0	N273EA383B#
TEMP CYCLE, 5' RAMP, 10' DWELL	0740	MAX2208ECM+	-65C TO 150C	1000 CYS	80	0	N273EA495B#
Total:						0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
MOISTURE SOAK	0523	MAX3782UGK	85 C/85% R.H.	500 HRS	37	0	N9N0AA153A
MOISTURE SOAK	0730	MAX2102CWI+	85 C/85% R.H.	1000 HRS	42	0	NJKAPQ001Q1
MOISTURE SOAK	0730	MAX2102CWI+	85 C/85% R.H.	500 HRS	45	0	NJKAPQ001Q2
MOISTURE SOAK	0730	MAX2102CWI+	85 C/85% R.H.	1000 HRS	45	0	NJKAPQ001Q2
MOISTURE SOAK	0730	MAX2102CWI+	85 C/85% R.H.	500 HRS	42	0	NJKAPQ001Q3
MOISTURE SOAK	0740	MAX2208ECM+	130C, 85% R.H.	96 HRS	120	0	N273EA383B#
MOISTURE SOAK	0740	MAX2208ECM+	130C, 85% R.H.	96 HRS	120	0	N273EA495B#
Total:						0	

FAILURE RATE:

MTTF (YRS): 74679

FITS: 1.5