



4/17/2012

**RELIABILITY MONITOR REPORT
FOR**

MFN 1.2 μ m Silicon Gate CMOS (B12)

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:

LM4050BEX3-2.	MAX1082AEUE	MAX15034BAUI	MAX4257ESA+	MAX4489AUA+
MAX6316LUK31	MAX6320PUK29	MAX6801UR44		

The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 84206 QUANTITY: 533 FAILS: 0 FITS: 1.4

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 4/1/2011 and 3/31/2012 .

Process Information:

Process Description: MFN 1.2µm Silicon Gate CMOS (B12)

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1103	MAX1082AEUE+	135C	1000 HRS	188	0	J4DCFA053EQ
HIGH TEMP OP LIFE	1131	MAX15034BAUI+	135C	700 HRS	80	0	JMWYAQ002CL
HIGH TEMP OP LIFE	1131	MAX15034BAUI+	135C	708 HRS	75	0	JMWYAQ001CL
HIGH TEMP OP LIFE	1138	MAX15034BAUI+	135C	700 HRS	100	0	JMWYAQ003D
HIGH TEMP OP LIFE	1144	MAX6316LUK31BX+	135C	1000 HRS	90	0	JQLAIQ001B#
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1046	MAX6801UR44D3+T	150C	1000 HRS	50	0	NP3EDA058A#
STORAGE LIFE	1121	MAX15034BAUI+	150C	500 HRS	50	0	JMWYAQ001IC
STORAGE LIFE	1131	MAX4257ESA+	150C	500 HRS	80	0	JL3BDA046E#
STORAGE LIFE	1140	MAX4489AUA+	150C	1000 HRS	50	0	J291EA101E#
STORAGE LIFE	1141	LM4050BEX3-2.5+	150C	1000 HRS	50	0	J57CEA080I#
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	1121	MAX15034BAUI+	-65C TO 150C	1000 CYS	80	0	JMWYAQ001IB
TEMP CYCLE, 5' RAMP, 10' DWELL	1121	MAX15034BAUI+	-65C TO 150C	1000 CYS	80	0	JMWYAQ001IA
TEMP CYCLE, 5' RAMP, 10' DWELL	1131	MAX4257ESA+	-65C TO 150C	500 CYS	80	0	JL3BDA046E#

TEMP CYCLE, 5' RAMP, 10' DWELL	1141	LM4050BEX3-2.5+	-65C TO 150C	500	CYS	80	0	J57CEA080I#
TEMP CYCLE, 5' RAMP, 10' DWELL	1141	LM4050BEX3-2.5+	-65C TO 150C	500	CYS	80	0	J57CEA080M#
TEMP CYCLE, 5' RAMP, 10' DWELL	1141	LM4050BEX3-2.5+	-65C TO 150C	500	CYS	80	0	J57CEA080N#
TEMP CYCLE, 5' RAMP, 10' DWELL	1141	MAX4489AUA+	-65C TO 150C	500	CYS	80	0	J291EA101D#
TEMP CYCLE, 5' RAMP, 10' DWELL	1141	MAX4489AUA+	-65C TO 150C	500	CYS	80	0	J291EA104C#
TEMP CYCLE, 5' RAMP, 10' DWELL	1144	MAX6316LUK31BX+	-65C TO 150C	500	CYS	80	0	JQLAIQ001B#
Total:							0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
BIASED MOISTURE	1131	MAX4257ESA+	130C, 85% R.H.	100	HRS	80	0	JL3BDA046E#
BIASED MOISTURE	1140	MAX4489AUA+	130C, 85% R.H.	100	HRS	30	0	J291EA101E#
BIASED MOISTURE	1141	LM4050BEX3-2.5+	130C, 85% R.H.	100	HRS	80	0	J57CEA080I#
BIASED MOISTURE	1141	LM4050BEX3-2.5+	130C, 85% R.H.	96	HRS	80	0	J57CEA080M#
BIASED MOISTURE	1141	LM4050BEX3-2.5+	130C, 85% R.H.	96	HRS	80	0	J57CEA080N#
BIASED MOISTURE	1144	MAX6316LUK31BX+	130C, 85% R.H.	100	HRS	80	0	JQLAIQ001B#
Total:							0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
MOISTURE SOAK	1131	MAX4257ESA+	130C, 85% R.H.	100	HRS	80	0	JL3BDA046E#
MOISTURE SOAK	1140	MAX4489AUA+	130C, 85% R.H.	100	HRS	80	0	J291EA101E#
MOISTURE SOAK	1141	LM4050BEX3-2.5+	130C, 85% R.H.	100	HRS	78	0	J57CEA080I#
MOISTURE SOAK	1141	LM4050BEX3-2.5+	130C, 85% R.H.	96	HRS	80	0	J57CEA080M#
MOISTURE SOAK	1141	LM4050BEX3-2.5+	130C, 85% R.H.	96	HRS	80	0	J57CEA080N#
MOISTURE SOAK	1141	MAX4489AUA+	130C, 85% R.H.	100	HRS	80	0	J291EA101D#
MOISTURE SOAK	1141	MAX4489AUA+	130C, 85% R.H.	100	HRS	80	0	J291EA104C#
MOISTURE SOAK	1143	MAX6320PUK29DY+	130C, 85% R.H.	96	HRS	80	0	JQLEIQ001BC
MOISTURE SOAK	1144	MAX6316LUK31BX+	130C, 85% R.H.	100	HRS	80	0	JQLAIQ001B#

FAILURE RATE:	MTTF (YRS): 84206	QUANTITY: 533	Total:	0
			FAILS: 0	FITS: 1.4