

4/17/2013



**RELIABILITY MONITOR REPORT  
FOR**

**X3 0.6 $\mu$ m Silicon Gate CMOS (C6)**

**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:

MAX4791EUK/V	MAX6834HXDD	MAX6834HXRD	MAX6834HXRD	MAX7325AEG+
MAX7463USA+				

The calculated failure rate for devices using this process is:

**FAILURE RATE:    MTTF (YRS): 2976    QUANTITY: 80    FAILS: 0    FITS: 38.4**

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

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## Process Information:

Process Description:            X3 0.6µm Silicon Gate CMOS (C6)

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### OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1248	MAX7463USA+	135°C	192 HRS	32	0	SAJD7A004CQ
HIGH TEMP OP LIFE	1248	MAX7463USA+	135°C	192 HRS	48	0	SAJD7A004BQ
				<b>Total:</b>		<b>0</b>	

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### STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1152	MAX4791EUK/V+T	150°C	500 HRS	45	0	SKG2GA027BB
STORAGE LIFE	1202	MAX7325AEG+	150°C	500 HRS	45	0	SYDABA049DA
STORAGE LIFE	1211	MAX6834HXRD2+	150°C	1000 HRS	80	0	S6E2GA082NA
STORAGE LIFE	1211	MAX6834HXRD2+	150°C	1000 HRS	80	0	S6E2GA082NB
STORAGE LIFE	1211	MAX6834HXRD2+	150°C	1000 HRS	80	0	S6E2GA082NC
STORAGE LIFE	1229	MAX6834HXRD2+T	150°C	1000 HRS	80	0	S6E2GA099OA
STORAGE LIFE	1229	MAX6834HXRD2+T	150°C	1000 HRS	80	0	S6E2GA099OB
STORAGE LIFE	1229	MAX6834HXRD2+T	150°C	1000 HRS	80	0	S6E2GA099OC
				<b>Total:</b>		<b>0</b>	

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### TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	1151	MAX4791EUK/V+T	-65C TO 150C	500 CYS	77	0	SKG2GA027AB
TEMP CYCLE, 5' RAMP, 10' DWELL	1152	MAX4791EUK/V+T	-65C TO 150C	500 CYS	77	0	SKG2GA027BB
TEMP CYCLE, 5' RAMP, 10' DWELL	1202	MAX7325AEG+	-65C TO 150C	500 CYS	77	0	SYDABA049DA

TEMP CYCLE, 5' RAMP, 10' DWELL	1211	MAX6834HXRD2+	-65C TO 150C	1000	CYS	80	0	S6E2GA082NA
TEMP CYCLE, 5' RAMP, 10' DWELL	1211	MAX6834HXRD2+	-65C TO 150C	1000	CYS	80	0	S6E2GA082NB
TEMP CYCLE, 5' RAMP, 10' DWELL	1211	MAX6834HXRD2+	-65C TO 150C	1000	CYS	80	0	S6E2GA082NC
TEMP CYCLE, 5' RAMP, 10' DWELL	1229	MAX6834HXRD2+T	-65C TO 150C	1000	CYS	80	0	S6E2GA099OA
TEMP CYCLE, 5' RAMP, 10' DWELL	1229	MAX6834HXRD2+T	-65C TO 150C	1000	CYS	80	0	S6E2GA099OB
TEMP CYCLE, 5' RAMP, 10' DWELL	1229	MAX6834HXRD2+T	-65C TO 150C	1000	CYS	79	0	S6E2GA099OC
TEMP CYCLE, 5' RAMP, 10' DWELL	1239	MAX6834HXDD2+T	-65C TO 150C	500	CYS	478	0	S6E2GA065H
TEMP CYCLE, 5' RAMP, 10' DWELL	1239	MAX6834HXRD2+T	-65C TO 150C	1000	CYS	478	0	S6E2GA065H#
<b>Total:</b>							<b>0</b>	

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### TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
BIASED MOISTURE	1211	MAX6834HXRD2+	130C, 85% R.H.	100	HRS	45	0	S6E2GA082NA
BIASED MOISTURE	1229	MAX6834HXRD2+T	130C, 85% R.H.	100	HRS	80	0	S6E2GA099OA
BIASED MOISTURE	1229	MAX6834HXRD2+T	130C, 85% R.H.	100	HRS	77	0	S6E2GA099OB
BIASED MOISTURE	1229	MAX6834HXRD2+T	130C, 85% R.H.	100	HRS	80	0	S6E2GA099OC
<b>Total:</b>						<b>0</b>		
<b>FAILURE RATE:</b>	<b>MTTF (YRS): 2976</b>		<b>QUANTITY: 80</b>	<b>FAILS: 0</b>		<b>FITS: 38.4</b>		