

4/16/2014



**RELIABILITY MONITOR REPORT  
FOR**

**MFN 3 $\mu$ m Silicon Gate CMOS (B3)**

**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:

MAX1745AUB+	MAX6175BASA/
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The calculated failure rate for devices using this process is:

**FAILURE RATE: MTTF (YRS): 56942      QUANTITY: 476      FAILS: 0      FITS: 2.0**

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 3µm Silicon Gate CMOS (B3)

**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1308	MAX1745AUB+	135°C	1000 HRS	79	0	J3KBIA177Q1
HIGH TEMP OP LIFE	1308	MAX1745AUB+	135°C	1000 HRS	80	0	J3KBIA177Q2
HIGH TEMP OP LIFE	1308	MAX1745AUB+	135°C	1000 HRS	79	0	J3KBIA177Q3
HIGH TEMP OP LIFE	1330	MAX6175BASA/V+	135°C	284 HRS	80	0	JAMO6Q003E#
HIGH TEMP OP LIFE	1335	MAX6175BASA/V+	135°C	216 HRS	80	0	JAMO6Q002E\$
HIGH TEMP OP LIFE	1335	MAX6175BASA/V+	135°C	716 HRS	78	0	JAMO6Q002EX
<b>Total:</b>						<b>0</b>	

**STORAGE LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1308	MAX1745AUB+	150°C	1000 HRS	80	0	J3KBIA177Q1
STORAGE LIFE	1308	MAX1745AUB+	150°C	1000 HRS	80	0	J3KBIA177Q2
STORAGE LIFE	1308	MAX1745AUB+	150°C	1000 HRS	80	0	J3KBIA177Q3
STORAGE LIFE	1328	MAX6175BASA/V+	150°C	500 HRS	80	0	JAMO6Q001JB
<b>Total:</b>						<b>0</b>	

**TEMPERATURE CYCLE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	1308	MAX1745AUB+	-65C TO 150C	1000 CYS	80	0	J3KBIA177Q2
TEMP CYCLE, 5' RAMP, 10' DWELL	1308	MAX1745AUB+	-65C TO 150C	1000 CYS	80	0	J3KBIA177Q3
TEMP CYCLE, 5' RAMP, 10' DWELL	1330	MAX6175BASA/V+	-65C TO 150C	500 CYS	80	0	JAMO6Q003E#

TEMP CYCLE, 5' RAMP, 1335 MAX6175BASA/V+ -65C TO 150C 500 CYS 80 0 JAMO6Q002EX  
 10' DWELL  
**Total: 0**

**TEMPERATURE HUMIDITY BIAS**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
BIASED MOISTURE	1328	MAX6175BASA/V+	130C, 85% R.H.	100 HRS	80	0	JAMO6Q001JB
BIASED MOISTURE	1330	MAX6175BASA/V+	130C, 85% R.H.	100 HRS	80	0	JAMO6Q003E#
						<b>Total:</b>	<b>0</b>

**UNBIASED MOISTURE RESISTANCE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
MOISTURE SOAK	1308	MAX1745AUB+	130C, 85% R.H.	1000 HRS	80	0	J3KBIA177Q1
MOISTURE SOAK	1308	MAX1745AUB+	130C, 85% R.H.	1000 HRS	80	0	J3KBIA177Q2
MOISTURE SOAK	1308	MAX1745AUB+	130C, 85% R.H.	1000 HRS	80	0	J3KBIA177Q3
MOISTURE SOAK	1328	MAX6175BASA/V+	130C, 85% R.H.	100 HRS	80	0	JAMO6Q001JB
MOISTURE SOAK	1330	MAX6175BASA/V+	130C, 85% R.H.	100 HRS	80	0	JAMO6Q003E#
						<b>Total:</b>	<b>0</b>

**FAILURE RATE: MTTF (YRS): 56942 QUANTITY: 476 FAILS: 0 FITS: 2.0**