

4/17/2013



**RELIABILITY MONITOR REPORT
FOR**

MFN 3 μ 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:

DS1868B	MAX1697UEUT	MAX1744EUB/V	MAX1744EUB+	MAX3222EEUP+
MAX487EEPA+	MAX604CSA+	MAX6175BASA		

The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 89405 QUANTITY: 598 FAILS: 0 FITS: 1.3

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 .

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	1032	MAX6175BASA+	135°C	1000 HRS	45	0	NI53BA108E#
HIGH TEMP OP LIFE	1033	MAX6175BASA+	135°C	1000 HRS	76	0	NI53BA109F
HIGH TEMP OP LIFE	1210	DS1868B	125C, 5.5 VOLTS	1000 HRS	80	0	QM220405AB
HIGH TEMP OP LIFE	1213	MAX1744EUB/V+	135°C	500 HRS	79	0	J3KAIU138G
HIGH TEMP OP LIFE	1213	MAX1744EUB/V+	135°C	1000 HRS	79	0	J3KAIU138G#
HIGH TEMP OP LIFE	1226	MAX3222EEUP+	135°C	192 HRS	80	0	JAES7A6A4C
HIGH TEMP OP LIFE	1226	MAX3222EEUP+	135°C	1000 HRS	80	0	JAES7A6A4C#
HIGH TEMP OP LIFE	1230	MAX6175BASA+	135°C	1000 HRS	79	0	NI53BA146DA
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1213	MAX1744EUB/V+	150°C	500 HRS	50	0	J3KAIU138G#
STORAGE LIFE	1246	MAX487EEPA+	150°C	1000 HRS	77	0	JAGF7A326Q1
STORAGE LIFE	1246	MAX487EEPA+	150°C	1000 HRS	77	0	JAGF7A326Q2
STORAGE LIFE	1246	MAX487EEPA+	150°C	1000 HRS	77	0	JAGF7A326Q3
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	1213	MAX1744EUB/V+	-65C TO 150C	500 CYS	80	0	J3KAIU138G#

TEMP CYCLE, 5' RAMP, 10' DWELL	1215	MAX1744EUB+	-65C TO 150C	500	CYS	80	0	J3KAIA139E#
TEMP CYCLE, 5' RAMP, 10' DWELL	1218	MAX1744EUB/V+	-65C TO 150C	500	CYS	80	0	J3KAIA143F#
TEMP CYCLE, 5' RAMP, 10' DWELL	1219	MAX1697UEUT+T	-65C TO 150C	1000	CYS	79	0	N76DBA063CA
TEMP CYCLE, 5' RAMP, 10' DWELL	1226	MAX3222EEUP+	-65C TO 150C	500	CYS	80	0	JAES7A6A4C#
TEMP CYCLE, 5' RAMP, 10' DWELL	1234	MAX604CSA+	-65C TO 150C	1000	CYS	80	0	NDNBFA313Q2
TEMP CYCLE, 5' RAMP, 10' DWELL	1234	MAX604CSA+	-65C TO 150C	1000	CYS	79	0	NDNBFA313Q3
TEMP CYCLE, 5' RAMP, 10' DWELL	1243	MAX604CSA+	-65C TO 150C	1000	CYS	80	0	NDNBFA313Q1
TEMP CYCLE, 5' RAMP, 10' DWELL	1246	MAX487EEPA+	-65C TO 150C	1000	CYS	77	0	JAGF7A326Q1
TEMP CYCLE, 5' RAMP, 10' DWELL	1246	MAX487EEPA+	-65C TO 150C	1000	CYS	77	0	JAGF7A326Q2
TEMP CYCLE, 5' RAMP, 10' DWELL	1246	MAX487EEPA+	-65C TO 150C	1000	CYS	77	0	JAGF7A326Q3
Total:							0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
BIASED MOISTURE	1226	MAX3222EEUP+	130C, 85% R.H.	100	HRS	32	0	JAES7A6A4C#
BIASED MOISTURE	1246	MAX487EEPA+	130C, 85% R.H.	100	HRS	77	0	JAGF7A326Q1
BIASED MOISTURE	1246	MAX487EEPA+	130C, 85% R.H.	100	HRS	77	0	JAGF7A326Q2
BIASED MOISTURE	1246	MAX487EEPA+	130C, 85% R.H.	100	HRS	77	0	JAGF7A326Q3
Total:							0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
MOISTURE SOAK	1213	MAX1744EUB/V+	130C, 85% R.H.	240	HRS	80	0	J3KAIU138G#
MOISTURE SOAK	1213	MAX1744EUB/V+	85 C/85% R.H.	240	HRS	80	0	J3KAIU138G
MOISTURE SOAK	1213	MAX1744EUB/V+	85 C/85% R.H.	1000	HRS	80	0	J3KAIA138G
MOISTURE SOAK	1215	MAX1744EUB+	85 C/85% R.H.	1000	HRS	80	0	J3KAIA139E#
MOISTURE SOAK	1218	MAX1744EUB/V+	85 C/85% R.H.	1000	HRS	78	0	J3KAIA143F#
MOISTURE SOAK	1226	MAX3222EEUP+	130C, 85% R.H.	100	HRS	80	0	JAES7A6A4C#
Total:							0	

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