

4/17/2013



**RELIABILITY MONITOR REPORT
FOR**

MFN Standard Metal Gate CMOS (M5)

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:

MAX202EWE+	MAX253ESA+
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The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 2976 QUANTITY: 160 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 .

Process Information:

Process Description: MFN Standard Metal Gate CMOS (M5)

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1243	MAX253ESA+	135°C	192 HRS	80	0	NCVACA665DA
HIGH TEMP OP LIFE	1243	MAX253ESA+	135°C	192 HRS	80	0	NCVACA665FA
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1243	MAX253ESA+	150°C	1000 HRS	80	0	NCVACA665EA
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	1232	MAX202EWE+	-65C TO 150C	1000 CYS	80	0	NHUADA2Y5Q1
TEMP CYCLE, 5' RAMP, 10' DWELL	1243	MAX253ESA+	-65C TO 150C	500 CYS	80	0	NCVACA665DA
Total:						0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
BIASED MOISTURE	1243	MAX253ESA+	130C, 85% R.H.	100 HRS	80	0	NCVACA665EA
Total:						0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
MOISTURE SOAK	1243	MAX253ESA+	130C, 85% R.H.	100 HRS	80	0	NCVACA665EA

FAILURE RATE:	MTTF (YRS): 2976	QUANTITY: 160	Total:	0
			FAILS: 0	FITS: 38.4