

10/23/2014



**RELIABILITY MONITOR REPORT
FOR**

X3 25 μ m MEMS (MS25X)

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:

MAX21001/V+	MAX21100
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The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 1840 QUANTITY: 160 FAILS: 1 FITS: 62.0

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 10/1/2013 and 9/30/2014 .

Process Information:

Process Description: X3 25µm MEMS (MS25X)

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1335	MAX21100	125C, 3.6 VOLTS	192 HRS	80	1	ZIA00146AB-NPI
HIGH TEMP OP LIFE	1417	MAX21100	125C, 3.6 VOLTS	240 HRS	80	0	ZIA00488AE-ENG
Total:						1	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
BIASED MOISTURE		MAX21001/V+	130C, 85% R.H.	264 HRS	80	0	ZIA00301AB
HAST	1417	MAX21100	110C, 85% R.H., 2.5V	264 HRS	80	0	ZIA00488AE-ENG
HAST	1417	MAX21100	110C, 85% R.H., 2.5V	264 HRS	80	0	ZIA00494AE-ENG
HAST	1417	MAX21100	110C, 85% R.H., 2.5V	264 HRS	80	0	ZIA00500AB-ENG
Total:						0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HAST, NO BIAS	1417	MAX21100	110C, 85% R.H.	264 HRS	80	0	ZIA00488AE-ENG
HAST, NO BIAS	1417	MAX21100	110C, 85% R.H.	264 HRS	80	0	ZIA00494AE-ENG
HAST, NO BIAS	1417	MAX21100	110C, 85% R.H.	264 HRS	160	0	ZIA00500AB-ENG
Total:						0	

FAILURE RATE: MTTF (YRS): 1840 QUANTITY: 160 FAILS: 1 FITS: 62.0