

4/17/2013



**RELIABILITY MONITOR REPORT
FOR**

X3 50um-diameter-TSV process (TSV)

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:

MAX44247AUA	MAX8975QEWC
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The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 20613 QUANTITY: 446 FAILS: 1 FITS: 5.5

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: X3 50um-diameter-TSV process (TSV)

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1228	MAX8975QEWC+	135°C	1000 HRS	49	0	SADN9Q004A#
HIGH TEMP OP LIFE	1233	MAX8975QEWC+	135°C	1000 HRS	79	1	SADN9Q003C#
HIGH TEMP OP LIFE	1237	MAX8975QEWC+	135°C	384 HRS	119	0	SADN9Q005A#
HIGH TEMP OP LIFE	1239	MAX8975QEWC+	135°C	384 HRS	120	0	SADN9Q005AG
HIGH TEMP OP LIFE	1240	MAX8975QEWC+	135°C	1000 HRS	79	0	SADN9Q006C#
Total:						1	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1228	MAX8975QEWC+	150°C	1000 HRS	80	0	SADN9Q004A#
STORAGE LIFE	1233	MAX8975QEWC+	150°C	1000 HRS	80	0	SADN9Q003C#
STORAGE LIFE	1240	MAX8975QEWC+	150°C	1000 HRS	80	0	SADN9Q006C#
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL		MAX44247AUA+	-65C TO 150C	1000 CYS	74	0	SAEU2Q00W#
TEMP CYCLE, 15' RAMP, 15' DWELL	1228	MAX8975QEWC+	-40C TO +125C	1000 CYS	80	0	SADN9Q004A#
TEMP CYCLE, 15' RAMP, 15' DWELL	1233	MAX8975QEWC+	-40C TO +125C	1000 CYS	80	0	SADN9Q003C#
TEMP CYCLE, 15' RAMP, 15' DWELL	1237	MAX8975QEWC+	-40C TO +125C	1000 CYS	160	0	SADN9Q005A#

TEMP CYCLE, 15' RAMP, 15' DWELL	1239	MAX8975QEWC+	-40C TO +125C	1000	CYS	160	0	SADN9Q005AG
TEMP CYCLE, 15' RAMP, 15' DWELL	1240	MAX8975QEWC+	-40C TO +125C	1000	CYS	80	0	SADN9Q006C#

Total: 0

FAILURE RATE: **MTTF (YRS): 20613** **QUANTITY: 446** **FAILS: 1** **FITS: 5.5**