



4/17/2012

**RELIABILITY MONITOR REPORT  
FOR**

**X3 TSV Process Flow for stack die (TSV)**

**MAXIM Integrated Products**

120 San Gabriel Dr.  
Sunnyvale, CA 94086

**This Report was prepared by  
Maxim 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:

MAX98314EWL
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The calculated failure rate for devices using this process is:

**FAILURE RATE:    MTTF (YRS): 44764    QUANTITY: 231    FAILS: 0    FITS: 2.6**

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 4/1/2011 and 3/31/2012 .

**Process Information:**

Process Description:            X3 TSV Process Flow for stack die (TSV)

**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1106	MAX98314EWL+T	135C	1000 HRS	77	0	SX8ZEQ002AC
HIGH TEMP OP LIFE	N/A	MAX98314EWL+T	135C	1000 HRS	77	0	SX8ZEQ003AB
HIGH TEMP OP LIFE	N/A	MAX98314EWL+T	135C	1000 HRS	77	0	SX8ZEQ004AD
<b>Total:</b>						<b>0</b>	

**STORAGE LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1106	MAX98314EWL+T	150C	500 HRS	77	0	SX8ZEQ002AC
STORAGE LIFE	N/A	MAX98314EWL+T	150C	1000 HRS	77	0	SX8ZEQ003AB
STORAGE LIFE	N/A	MAX98314EWL+T	150C	1000 HRS	77	0	SX8ZEQ004AD
<b>Total:</b>						<b>0</b>	

**TEMPERATURE CYCLE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 15' RAMP, 15' DWELL	1106	MAX98314EWL+T	-40C TO +125C	1000 CYS	77	0	SX8ZEQ002AC
TEMP CYCLE, 5' RAMP, 10' DWELL	1106	MAX98314EWL+T	-65C TO 150C	500 CYS	77	0	SX8ZEQ002AC
TEMP CYCLE, 15' RAMP, 15' DWELL	N/A	MAX98314EWL+T	-40C TO +125C	1000 CYS	77	0	SX8ZEQ003AB
TEMP CYCLE, 15' RAMP, 15' DWELL	N/A	MAX98314EWL+T	-40C TO +125C	1000 CYS	77	0	SX8ZEQ004AD
TEMP CYCLE, 5' RAMP, 10' DWELL	N/A	MAX98314EWL+T	-65C TO 150C	500 CYS	77	0	SX8ZEQ004AD
<b>Total:</b>						<b>0</b>	

**FAILURE RATE:**    **MTTF (YRS): 44764**    **QUANTITY: 231**    **FAILS: 0**    **FITS: 2.6**