



5/9/2009

RELIABILITY MONITOR REPORT  
FOR

**TSMC 0.5 $\mu$ m Silicon Gate CMOS**

**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:

LMX331AUK+	MAX4234AUD+
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The calculated failure rate for devices using this process is:

**FAILURE RATE:**                      **MTTF (YRS): 20735**                      **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 and .

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**Process Information:**

Process Description:                      TSMC 0.5µm Silicon Gate CMOS

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**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	0712	LMX331AUK+	135C	1000 HRS	80	0	K080BA004F#
HIGH TEMP OP LIFE	0819	MAX4234AUD+	135C	700 HRS	40	0	K9L0BQ001R#
<b>Total:</b>						<b>0</b>	

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**STORAGE LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	0818	MAX4234AUD+	150C	1000 HRS	45	0	K9L0BQ001R#
<b>Total:</b>						<b>0</b>	

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**TEMPERATURE CYCLE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	0819	MAX4234AUD+	-65C TO 150C	500 CYS	80	0	K9L0BQ001R#
TEMP CYCLE, 5' RAMP, 10' DWELL	0845	MAX4234AUD+	-65C TO 150C	500 CYS	80	0	K9L0BQ002C#
<b>Total:</b>						<b>0</b>	

**FAILURE RATE:**                      **MTTF (YRS): 20735**                      **FITS: 5.5**