



1/25/2008

RELIABILITY MONITOR REPORT  
FOR

**MFN 3 $\mu$ 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:

MAX1673ESA	MAX1745EUB+	MAX186AEAP+	MAX197BCWI+	MAX199BCNI+
MAX3212CWI+	MAX3222EEUP	MAX3223EEPP	MAX3291CSD+	MAX3317EEUP+
MAX3490EEPA	MAX4172ESA	MAX717ESE+	MXL1544CAI	MXL1544CAI+

The calculated failure rate for devices using this process is:

**FAILURE RATE:**                      **MTTF (YRS): 363729**                      **FITS: 0.3**

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:                      MFN 3µm Silicon Gate CMOS

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**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	054	MAX197BCWI+	135C, 5.25V	1000 HRS	45	0	
HIGH TEMP OP LIFE	0344	MAX3490EEPA	135C, 5.25V	1000 HRS	99	0	
HIGH TEMP OP LIFE	0540	MAX717ESE+	135C, 5.25V	1000 HRS	45	0	
			135C, 5.25V	1000 HRS	45	0	
			135C, 5.25V	1000 HRS	43	0	
HIGH TEMP OP LIFE	0541	MAX1745EUB+	135C, 5.25V	1000 HRS	45	0	
			135C, 5.25V	1000 HRS	45	0	
			135C, 5.25V	1000 HRS	45	0	
HIGH TEMP OP LIFE	0547	MAX197BCWI+	135C, 5.25V	1000 HRS	45	0	
		MAX4172ESA	135C, 5.25V	1000 HRS	80	0	
		MAX197BCWI+	135C, 5.25V	1000 HRS	45	0	
HIGH TEMP OP LIFE	0607	MAX3291CSD+	135C, 5.25V	1000 HRS	45	0	
			135C, 5.25V	1000 HRS	44	0	
			135C, 5.25V	1000 HRS	45	0	
HIGH TEMP OP LIFE	0609	MAX3223EEPP	135C, 5.25V	1000 HRS	149	0	
HIGH TEMP OP LIFE	0614	MAX1673ESA	135C, 5.25V	1000 HRS	62	0	
HIGH TEMP OP LIFE	0618	MAX199BCNI+	135C, 5.25V	1000 HRS	45	0	
			135C, 5.25V	1000 HRS	45	0	
			135C, 5.25V	1000 HRS	45	0	
HIGH TEMP OP LIFE	0633	MXL1544CAI	135C, 5.25V	1000 HRS	45	0	
		MXL1544CAI+	135C, 5.25V	1000 HRS	45	0	
			135C, 5.25V	1000 HRS	44	0	
HIGH TEMP OP LIFE	0641	MAX3212CWI+	135C, 5.25V	1000 HRS	45	0	
			135C, 5.25V	1000 HRS	44	0	

HIGH TEMP OP LIFE	0641	MAX3212CWI+	135C, 5.25V	1000 HRS	45	0
			135C, 5.25V	1000 HRS	77	0
			135C, 5.25V	1000 HRS	77	0
			135C, 5.25V	1000 HRS	77	0
HIGH TEMP OP LIFE	0642	MAX186AEAP+	135C, 5.25V	1000 HRS	80	0
HIGH TEMP OP LIFE	0701	MAX3222EEUP	135C, 5.25V	1000 HRS	80	0
HIGH TEMP OP LIFE	0709	MAX1745EUB+	135C, 5.25V	1000 HRS	76	0
HIGH TEMP OP LIFE	0713	MAX3317EEUP+	135C, 5.25V	1000 HRS	80	0
				<b>Total:</b>		<b>0</b>

**FAILURE RATE:**

**MTTF (YRS): 363729**

**FITS: 0.3**