



5/9/2009

RELIABILITY MONITOR REPORT
FOR

MFN 5 μ 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:

DG413DY+	MAX306MJI+	MAX313CSE+	MAX313ESE+	MAX335CNG
MAX4456CPL	MAX4456CPL+	MAX734CSA	MAX734CSA+	

The calculated failure rate for devices using this process is:

FAILURE RATE: **MTTF (YRS): 46314** **FITS: 2.5**

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 1/1/2008 and 12/31/2008.

Process Information:

Process Description: MFN 5µm Silicon Gate CMOS

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	0735	DG413DY+	135C	1000 HRS	80	0	NRLCGA370C
HIGH TEMP OP LIFE	0735	DG413DY+	135C	1000 HRS	80	0	NRLCGA367A
HIGH TEMP OP LIFE	0735	MAX335CNG	135C	1000 HRS	80	0	NCSACA079F
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	0735	MAX313ESE+	150C	1000 HRS	80	0	NJHBBA405D
STORAGE LIFE	0752	MAX734CSA	150C	1000 HRS	80	0	NSDAHA099Q1
STORAGE LIFE	0752	MAX734CSA	150C	1000 HRS	80	0	NSDAHA099Q2
STORAGE LIFE	0752	MAX734CSA	150C	1000 HRS	80	0	NSDAHA099Q3
STORAGE LIFE	0803	MAX313CSE+	150C	1000 HRS	80	0	NJHBBA416E
STORAGE LIFE	0817	MAX4456CPL	150C	500 HRS	78	0	NVNAGA072Q1
STORAGE LIFE	0817	MAX4456CPL+	150C	1000 HRS	78	0	NVNAGA972Q1
STORAGE LIFE	0817	MAX4456CPL+	150C	1000 HRS	78	0	NVNAGA072Q2
STORAGE LIFE	0817	MAX4456CPL+	150C	1000 HRS	78	0	NVNAGA072Q3
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	0752	MAX734CSA+	-65C TO 150C	1000 CYS	80	0	NSDAHA099Q1

TEMP CYCLE, 5' RAMP, 10' DWELL	0752	MAX734CSA+	-65C TO 150C	1000	CYS	80	0	NSDAHA099Q2	
TEMP CYCLE, 5' RAMP, 10' DWELL	0752	MAX734CSA+	-65C TO 150C	1000	CYS	80	0	NSDAHA099Q3	
TEMP CYCLE, 5' RAMP, 10' DWELL	0803	MAX313CSE+	-65C TO 150C	1000	CYS	80	0	NJHBBA416E	
TEMP CYCLE, 5' RAMP, 10' DWELL	0817	MAX306MJI+	-65C TO 150C	1000	CYS	78	0	NSAHA250Q1	
TEMP CYCLE, 5' RAMP, 10' DWELL	0817	MAX306MJI+	-65C TO 150C	1000	CYS	78	0	NSAHA250Q2	
TEMP CYCLE, 5' RAMP, 10' DWELL	0817	MAX306MJI+	-65C TO 150C	1000	CYS	78	0	NSAHA250Q3	
TEMP CYCLE, 5' RAMP, 10' DWELL	0817	MAX4456CPL	-65C TO 150C	1000	CYS	78	0	NVNAGA072Q1	
TEMP CYCLE, 5' RAMP, 10' DWELL	0817	MAX4456CPL+	-65C TO 150C	1000	CYS	77	0	NVNAGA072Q2	
TEMP CYCLE, 5' RAMP, 10' DWELL	0817	MAX4456CPL+	-65C TO 150C	1000	CYS	78	0	NVNAGA072Q3	
Total:							0		

FAILURE RATE:

MTTF (YRS): 46314

FITS: 2.5