



4/11/2009

**RELIABILITY MONITOR REPORT
FOR**

DAL B8 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:

DS2413	DS3510	DS8007	DS8113
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The calculated failure rate for devices using this process is:

FAILURE RATE: **MTTF (YRS): 32431** **FITS: 3.5**

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 10/1/2007 and 9/30/2008 .

Process Information:

Process Description: DAL B8 Silicon Gate CMOS

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	0740	DS8007	125C, 6.0 VOLTS	1000 HRS	77	0	QN824614BBA
HIGH TEMP OP LIFE	0740	DS8007	125C, 6.0 VOLTS	1000 HRS	77	0	XN716349CAC
HIGH TEMP OP LIFE	0744	DS8113	125C, 6.0 VOLTS	1000 HRS	45	0	QK732036AB
HIGH TEMP OP LIFE	0750	DS8007	125C, 6.0 VOLTS	1000 HRS	77	0	QN824614AB-NPI
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	0740	DS8007	150C	1000 HRS	77	0	QN824614BBA
STORAGE LIFE	0740	DS8007	150C	1000 HRS	77	0	XN716349CAC
STORAGE LIFE	0750	DS8007	150C	1000 HRS	77	0	QN824614AB-NPI
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
BOND STRENGTH	0740	DS8007	MIL-STD-883-2011 : COND D	40 WIRES	5	0	QN824614BBA
TEMP CYCLE, 5' RAMP, 10' DWELL	0740	DS8007	-65C TO 150C	1000 CYS	77	0	QN824614BBA
BOND STRENGTH	0740	DS8007	MIL-STD-883-2011 : COND D	40 WIRES	5	0	XN716349CAC
TEMP CYCLE, 5' RAMP, 10' DWELL	0740	DS8007	-65C TO 150C	1000 CYS	77	0	XN716349CAC
BOND STRENGTH	0750	DS8007	MIL-STD-883-2011 : COND D	40 WIRES	5	0	QN824614AB-NPI

TEMP CYCLE, 5' RAMP, 10' DWELL	0750	DS8007	-65C TO 150C	1000	CYS	77	0	QN824614AB-NPI
TEMP CYCLE, 5' RAMP, 10' DWELL	0821	DS2413	-55C TO 125C	2000	CYS	77	0	QJ816087AEA
TEMP CYCLE, 5' RAMP, 10' DWELL	0821	DS2413	-55C TO 125C	2000	CYS	77	0	QJ821113AEA
TEMP CYCLE, 5' RAMP, 10' DWELL	0821	DS2413	-55C TO 125C	1000	CYS	77	0	QJ823334ACA

Total: 0

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
HAST	0740	DS8007	130C, 85%R.H.,5.5V	96	HRS	77	0	QN824614BBA
HAST	0740	DS8007	130C, 85%R.H.,5.5V	96	HRS	77	0	XN716349CAC
HAST	0750	DS8007	130C, 85%R.H.,5.5V	96	HRS	77	0	QN824614AB-NPI
HAST	0821	DS2413	130C, 85%R.H.,3.5V	96	HRS	45	0	QJ816087AEA
HAST	0821	DS2413	130C, 85%R.H.,3.5V	96	HRS	45	0	QJ821113AEA
HAST	0821	DS2413	130C, 85%R.H.,3.5V	96	HRS	45	0	QJ823334ACA

Total: 0

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
AUTOCLAVE	0740	DS8007	121C, 2 ATM STEAM, UNBIASED	168	HRS	76	0	QN824614BBA
AUTOCLAVE	0740	DS8007	121C, 2 ATM STEAM, UNBIASED	168	HRS	76	0	XN716349CAC
AUTOCLAVE	0750	DS8007	121C, 2 ATM STEAM, UNBIASED	168	HRS	76	0	QN824614AB-NPI

Total: 0

W/E ENDURANCE AND DATA RET'N

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
WRITE CYCLE STRESS (KCYS)	0750	DS3510	70 C, 5.5V (PSA) & 15.0V (PSB)	50	KCYS	77	0	QJ712635CA-NPI
STORAGE LIFE	0750	DS3510	150C	1000	HRS	77	0	QJ712635CA-NPI

Total: 0

FAILURE RATE: MTTF (YRS): 32431 FITS: 3.5