



7/19/2012

**RELIABILITY MONITOR REPORT
FOR**

San Antonio Silicon Gate 0.4 μ mCMOS (E35)

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:

DS28EC20	DSQ3301-K04+T
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The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 28881 QUANTITY: 308 FAILS: 0 FITS: 4.0

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 7/1/2011 and 6/30/2012 .

Process Information:

Process Description: San Antonio Silicon Gate 0.4µmCMOS (E35)

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP REVERSE BIAS	1122	DSQ3301-K04+T	125C, 5.5 VOLTS	1000 HRS	77	0	ZJ166825ACA
HIGH TEMP REVERSE BIAS	1123	DSQ3301-K04+T	125C, 5.5 VOLTS	1000 HRS	77	0	ZJ166825ACB
HIGH TEMP REVERSE BIAS	1124	DSQ3301-K04+T	125C, 5.5 VOLTS	1000 HRS	77	0	ZJ166825ACC
HIGH TEMP OP LIFE	1135	DS28EC20	125C, 5.25 VOLTS	192 HRS	77	0	ZJ272094AB-NPI
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1122	DSQ3301-K04+T	150C	1000 HRS	77	0	ZJ166825ACA
STORAGE LIFE	1123	DSQ3301-K04+T	150C	1000 HRS	77	0	ZJ166825ACB
STORAGE LIFE	1124	DSQ3301-K04+T	150C	1000 HRS	77	0	ZJ166825ACC
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	1122	DSQ3301-K04+T	-55C TO 125C	1000 CYS	77	0	ZJ166825ACA
TEMP CYCLE, 5' RAMP, 10' DWELL	1123	DSQ3301-K04+T	-55C TO 125C	1000 CYS	77	0	ZJ166825ACB
TEMP CYCLE, 5' RAMP, 10' DWELL	1124	DSQ3301-K04+T	-55C TO 125C	1000 CYS	77	0	ZJ166825ACC
Total:						0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
BIASED MOISTURE	1122	DSQ3301-K04+T	85/85, 5.5 VOLTS	1000 HRS	77	0	ZJ166825ACA
BIASED MOISTURE	1123	DSQ3301-K04+T	85/85, 5.5 VOLTS	1000 HRS	77	0	ZJ166825ACB
BIASED MOISTURE	1124	DSQ3301-K04+T	85/85, 5.5 VOLTS	1000 HRS	77	0	ZJ166825ACC
Total:						0	

W/E ENDURANCE AND DATA RET'N

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
WRITE CYCLE STRESS (KCYS)	1134	DS28EC20	85 C, 5.25 VOLTS	50 KCYS	77	0	ZM268985AB-NPI
STORAGE LIFE	1134	DS28EC20	150C	1000 HRS	77	0	ZM268985AB-NPI
WRITE CYCLE STRESS (KCYS)	1134	DS28EC20	25 C, 5.25 VOLTS	200 KCYS	77	0	ZM268985AB-NPI
STORAGE LIFE	1134	DS28EC20	150C	1000 HRS	74	0	ZM268985AB-NPI
WRITE CYCLE STRESS (KCYS)	1135	DS28EC20	85 C, 5.25 VOLTS	50 KCYS	77	1	ZJ272094AB-NPI
STORAGE LIFE	1135	DS28EC20	150C	1000 HRS	76	0	ZJ272094AB-NPI
WRITE CYCLE STRESS (KCYS)	1135	DS28EC20	25 C, 5.25 VOLTS	200 KCYS	77	0	ZJ272094AB-NPI
STORAGE LIFE	1135	DS28EC20	150C	1000 HRS	77	0	ZJ272094AB-NPI
WRITE CYCLE STRESS (KCYS)	1135	DS28EC20	85 C, 5.25 VOLTS	50 KCYS	80	0	ZJ272094AB-NPI
STORAGE LIFE	1135	DS28EC20	150C	1000 HRS	80	0	ZJ272094AB-NPI
WRITE CYCLE STRESS (KCYS)	1137	DS28EC20	85 C, 5.25 VOLTS	50 KCYS	77	0	ZJ268984EB
STORAGE LIFE	1137	DS28EC20	150C	1000 HRS	77	0	ZJ268984EB
WRITE CYCLE STRESS (KCYS)	1137	DS28EC20	25 C, 5.25 VOLTS	200 KCYS	77	0	ZJ268984EB
STORAGE LIFE	1137	DS28EC20	150C	1000 HRS	76	0	ZJ268984EB
Total:						1	

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