



5/9/2009

**RELIABILITY MONITOR REPORT
FOR**

San Antonio 0.8 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:

| | | | | |
|--------------|--------------|--------------|--------------|--------------|
| MAX13173EETU | MAX13413EESA | MAX13432EESD | MAX13433EESD | MAX15036ATE+ |
| MAX1541ETL+ | MAX16020PTEZ | MAX16021LTER | MAX16023LTAS | MAX16053AUT+ |
| MAX17412ETI+ | MAX1806EUA25 | MAX8586ETA+ | MAX8664AEPP+ | MAX8731AETI+ |
| MAX8785ETI+ | MAX9788ETI+ | MAX9923FEUB+ | MAX9940AXK+ | |

The calculated failure rate for devices using this process is:

FAILURE RATE: **MTTF (YRS): 30557** **FITS: 3.7**

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

Process Information:

Process Description: San Antonio 0.8µm Silicon Gate CMOS

OPERATING LIFE

| DESCRIPTION | DATE CODE | TEST VEHICLE | CONDITION | READPOINT | QUANTITY | FAILS | LOT NO. |
|-------------------|-----------|-----------------|-----------|-----------|----------|----------|-------------|
| HIGH TEMP OP LIFE | 0634 | MAX8731AETI+ | 135C | 192 HRS | 48 | 0 | TR0BAQ002DQ |
| HIGH TEMP OP LIFE | 0640 | MAX9788ETI+ | 135C | 192 HRS | 48 | 0 | TALZAA004AQ |
| HIGH TEMP OP LIFE | 0701 | MAX8664AEPP+ | 135C | 192 HRS | 48 | 0 | TQ90DQ002GQ |
| HIGH TEMP OP LIFE | 0738 | MAX13413EESA+ | 135C | 192 HRS | 48 | 0 | TFXWBQ002BQ |
| HIGH TEMP OP LIFE | 0750 | MAX16020PTEZ+ | 135C | 192 HRS | 50 | 0 | T0000A043CQ |
| HIGH TEMP OP LIFE | 0814 | MAX15036ATE+ | 135C | 192 HRS | 48 | 0 | TYF2AQ002BQ |
| HIGH TEMP OP LIFE | 0819 | MAX13173EETU+ | 135C | 192 HRS | 48 | 0 | TIEYBQ001CQ |
| HIGH TEMP OP LIFE | 0823 | MAX16023LTAS18+ | 135C | 192 HRS | 50 | 0 | T0000A084AQ |
| HIGH TEMP OP LIFE | 0827 | MAX8785ETI+ | 135C | 192 HRS | 48 | 0 | TV80CQ002BQ |
| HIGH TEMP OP LIFE | 0832 | MAX1541ETL+ | 135C | 138 HRS | 31 | 0 | TCE1HA339H# |
| HIGH TEMP OP LIFE | 0834 | MAX16021LTER+ | 135C | 192 HRS | 48 | 0 | T0000A093BQ |
| HIGH TEMP OP LIFE | 0834 | MAX16053AUT+ | 135C | 192 HRS | 48 | 0 | TLKYCQ001CQ |
| HIGH TEMP OP LIFE | 0835 | MAX13433EESD+ | 135C | 192 HRS | 48 | 0 | TNUWBQ001CQ |
| HIGH TEMP OP LIFE | 0835 | MAX13432EESD+ | 135C | 192 HRS | 49 | 0 | TNUXBQ001CQ |
| HIGH TEMP OP LIFE | 0842 | MAX9923FEUB+ | 135C | 192 HRS | 50 | 0 | THOWCQ002DQ |
| HIGH TEMP OP LIFE | 0844 | MAX17412ETI+ | 135C | 192 HRS | 50 | 0 | TR0BAA605BQ |
| HIGH TEMP OP LIFE | 0849 | MAX9940AXK+ | 135C | 192 HRS | 50 | 0 | TPXZBQ002DQ |
| Total: | | | | | | 0 | |

STORAGE LIFE

| DESCRIPTION | DATE CODE | TEST VEHICLE | CONDITION | READPOINT | QUANTITY | FAILS | LOT NO. |
|--------------|--------------|-----------------|-----------|---------------|----------|----------|-------------|
| STORAGE LIFE | 0816 | MAX1806EUA25+ | 150C | 500 HRS | 45 | 0 | T3S1DA044I# |
| | | | | Total: | | 0 | |

TEMPERATURE CYCLE

| DESCRIPTION | DATE CODE | TEST VEHICLE | CONDITION | READPOINT | QUANTITY | FAILS | LOT NO. |
|-----------------------------------|--------------|-----------------|--------------|---------------|----------|----------|-------------|
| TEMP CYCLE, 5' RAMP, 10' DWELL | 0737 | MAX8586ETA+ | -65C TO 150C | 1000 CYS | 77 | 0 | TTQ0DA005M# |
| | | | | Total: | | 0 | |

FAILURE RATE:**MTTF (YRS): 30557****FITS: 3.7**