4/17/2013

**RELIABILITY MONITOR REPORT**
**FOR**

# MFN SiGe HBT 0.5µm CMOS (GST40)

## MAXIM INTEGRATED

**160 RIO ROBLES**
**SAN JOSE, CA 95134**

**This Report was prepared by**
**MAXIM INTEGRATED 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:

| MAX2021ETX+ | MAX2058ETL+ | MAX2140ETH+ | MAX3815CCM+ |
|---|---|---|---|

The calculated failure rate for devices using this process is:

**FAILURE RATE: MTTF (YRS): 24854 QUANTITY: 303 FAILS: 0 FITS: 4.6**

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 4/1/2012 and 3/31/2013 .

**Process Information:**

Process Description: MFN SiGe HBT 0.5µm CMOS (GST40)

**OPERATING LIFE**

| DESCRIPTION | DATE CODE | TEST VEHICLE | CONDITION | READPOINT | | QUANTITY | FAILS | LOT NO. |
|---|---|---|---|---|---|---|---|---|
| HIGH TEMP OP LIFE | 1153 | MAX2140ETH+ | 135°C | 524 | HRS | 79 | 0 | NEZ0E2865E |
| HIGH TEMP OP LIFE | 1153 | MAX2140ETH+ | 135°C | 500 | HRS | 80 | 0 | NEZ0E2864E |
| HIGH TEMP OP LIFE | 1206 | MAX2021ETX+ | 135°C | 192 | HRS | 48 | 0 | NZF0AA063CQ |
| HIGH TEMP OP LIFE | 1206 | MAX2021ETX+ | 135°C | 192 | HRS | 32 | 0 | NZF0AA063DQ |
| HIGH TEMP OP LIFE | 1209 | MAX2058ETL+ | 135°C | 500 | HRS | 32 | 0 | NT40A2220D |
| HIGH TEMP OP LIFE | 1216 | MAX3815CCM+ | 135°C | 500 | HRS | 32 | 0 | NXQ0A2194F |
| | | | | | **Total:** | | **0** | |

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