



7/19/2012

**RELIABILITY MONITOR REPORT
FOR**

MFN Standard Metal Gate CMOS (M5)

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:

| | |
|---------------|------------|
| ICL7660AMTV/8 | ICL7660CTV |
|---------------|------------|

The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 69277 QUANTITY: 420 FAILS: 0 FITS: 1.6

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

Process Information:

Process Description: MFN Standard Metal Gate CMOS (M5)

OPERATING LIFE

| DESCRIPTION | DATE CODE | TEST VEHICLE | CONDITION | READPOINT | QUANTITY | FAILS | LOT NO. |
|-------------------|-----------|------------------|-----------|-----------|----------|----------|-------------|
| HIGH TEMP OP LIFE | 1108 | ICL7660AMTV/883B | 135C | 1000 HRS | 45 | 0 | NYFAGK2B5Q1 |
| HIGH TEMP OP LIFE | 1108 | ICL7660AMTV/883B | 135C | 500 HRS | 45 | 0 | NYFAGK2B5Q2 |
| HIGH TEMP OP LIFE | 1108 | ICL7660AMTV/883B | 135C | 1000 HRS | 45 | 0 | NYFAGKB5Q2 |
| HIGH TEMP OP LIFE | 1108 | ICL7660AMTV/883B | 135C | 1000 HRS | 45 | 0 | NYFAGK2B5Q3 |
| HIGH TEMP OP LIFE | 1152 | ICL7660CTV | 135C | 1000 HRS | 80 | 0 | NYFAGA3B4Q1 |
| HIGH TEMP OP LIFE | 1152 | ICL7660CTV | 135C | 1000 HRS | 80 | 0 | NYFAGA3B4Q2 |
| HIGH TEMP OP LIFE | 1152 | ICL7660CTV | 135C | 1000 HRS | 80 | 0 | NYFAGA3B4Q3 |
| Total: | | | | | | 0 | |

STORAGE LIFE

| DESCRIPTION | DATE CODE | TEST VEHICLE | CONDITION | READPOINT | QUANTITY | FAILS | LOT NO. |
|---------------|-----------|------------------|-----------|-----------|----------|----------|-------------|
| STORAGE LIFE | 1108 | ICL7660AMTV/883B | 150C | 1000 HRS | 77 | 0 | NYFAGK2B5Q1 |
| STORAGE LIFE | 1108 | ICL7660AMTV/883B | 150C | 1000 HRS | 77 | 0 | NYFAGK2B5Q2 |
| STORAGE LIFE | 1108 | ICL7660AMTV/883B | 150C | 1000 HRS | 77 | 0 | NYFAGK2BQ3 |
| Total: | | | | | | 0 | |

TEMPERATURE CYCLE

| DESCRIPTION | DATE CODE | TEST VEHICLE | CONDITION | READPOINT | QUANTITY | FAILS | LOT NO. |
|--------------------------------|-----------|------------------|--------------|-----------|----------|----------|-------------|
| TEMP CYCLE, 5' RAMP, 10' DWELL | 1108 | ICL7660AMTV/883B | -65C TO 150C | 1000 CYS | 77 | 0 | NYFAGK2B5Q1 |
| TEMP CYCLE, 5' RAMP, 10' DWELL | 1108 | ICL7660AMTV/883B | -65C TO 150C | 1000 CYS | 77 | 0 | NYFAGK2B5Q2 |
| TEMP CYCLE, 5' RAMP, 10' DWELL | 1108 | ICL7660AMTV/883B | -65C TO 150C | 1000 CYS | 77 | 0 | NYFAGK2BQ3 |
| Total: | | | | | | 0 | |

FAILURE RATE: **MTTF (YRS): 69277** **QUANTITY: 420** **FAILS: 0** **FITS: 1.6**