

7/10/2017



**RELIABILITY MONITOR REPORT  
FOR**

**MFN CB20**

**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:

MAX3967AETG	MAX4091AUA+	MAX494ESD+	MAX913ESA+	MAX9201EUE+
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The calculated failure rate for devices using this process is:

**FAILURE RATE:    MTTF (YRS): 162002    QUANTITY: 796    FAILS: 0    FITS: 0.7**

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 4/1/2017 and 6/30/2017 .

**Process Information:**

Process Description:            MFN CB20

**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1542	MAX3967AETG+	135°C	1000 HRS	48	0	NZ0AB00007
HIGH TEMP OP LIFE	1542	MAX3967AETG+	135°C	1000 HRS	32	0	NZ0AB00007
HIGH TEMP OP LIFE	1624	MAX913ESA+	135°C	1000 HRS	80	0	NKE0C3073HX
HIGH TEMP OP LIFE	1639	MAX913ESA+	135°C	1000 HRS	79	0	NKE0C3073U
HIGH TEMP OP LIFE	1639	MAX913ESA+	135°C	1000 HRS	79	0	NKE0C3073V
HIGH TEMP OP LIFE	1639	MAX913ESA+	135°C	500 HRS	80	0	NKE0C3073W
HIGH TEMP OP LIFE	1642	MAX9201EUE+	135°C	1000 HRS	80	0	N0G0B3085EX
HIGH TEMP OP LIFE	1645	MAX494ESD+	135°C	1000 HRS	80	0	N380B3103Q1
HIGH TEMP OP LIFE	1645	MAX494ESD+	135°C	1000 HRS	79	0	N380B3103Q2
HIGH TEMP OP LIFE	1645	MAX494ESD+	135°C	1000 HRS	79	0	N380B3103Q3
HIGH TEMP OP LIFE	1653	MAX9201EUE+	135°C	1000 HRS	80	0	N0G0BA086FX
<b>Total:</b>						<b>0</b>	

**STORAGE LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1542	MAX3967AETG+	150°C	1000 HRS	80	0	NZ0AB00007
STORAGE LIFE	1603	MAX4091AUA+	150°C	1000 HRS	89	0	N110BA083CA
STORAGE LIFE	1613	MAX4091AUA+	150°C	1000 HRS	79	0	N110BA083Q1
STORAGE LIFE	1613	MAX4091AUA+	150°C	1000 HRS	79	0	N110BA083Q2
STORAGE LIFE	1624	MAX913ESA+	150°C	1000 HRS	80	0	NKE0C3073HX
STORAGE LIFE	1639	MAX913ESA+	150°C	500 HRS	90	0	NKE0C3073U
STORAGE LIFE	1639	MAX913ESA+	150°C	1000 HRS	90	0	NKE0C3073V

STORAGE LIFE	1639	MAX913ESA+	150°C	500	HRS	90	0	NKE0C3073W
STORAGE LIFE	1642	MAX9201EUE+	150°C	1000	HRS	80	0	N0G0B3085EX
STORAGE LIFE	1645	MAX494ESD+	150°C	500	HRS	90	0	N380B3103Q1
STORAGE LIFE	1645	MAX494ESD+	150°C	500	HRS	90	0	N380B3103Q2
STORAGE LIFE	1645	MAX494ESD+	150°C	1000	HRS	90	0	N380B3103Q1
STORAGE LIFE	1645	MAX494ESD+	150°C	500	HRS	90	0	N380B3103Q3
STORAGE LIFE	1645	MAX494ESD+	150°C	1000	HRS	90	0	N380B3103Q3
STORAGE LIFE	1653	MAX9201EUE+	150°C	1000	HRS	80	0	N0G0BA086FX
<b>Total:</b>							<b>0</b>	

### TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
TEMP CYCLE, 5' RAMP, 10' DWELL	1542	MAX3967AETG+	-65C TO +150C (Condition C)	1000	CYS	80	0	NZ0AB00007
TEMP CYCLE, 5' RAMP, 10' DWELL	1613	MAX4091AUA+	-65C TO +150C (Condition C)	500	CYS	120	0	N110BA083Q1
TEMP CYCLE, 5' RAMP, 10' DWELL	1624	MAX913ESA+	-65C TO +150C (Condition C)	1000	CYS	80	0	NKE0C3073HX
TEMP CYCLE, 5' RAMP, 10' DWELL	1635	MAX494ESD+	-65C TO +150C (Condition C)	500	CYS	80	0	N380BA102QA
TEMP CYCLE, 5' RAMP, 10' DWELL	1639	MAX913ESA+	-65C TO +150C (Condition C)	1000	CYS	100	0	NKE0C3073U
TEMP CYCLE, 5' RAMP, 10' DWELL	1639	MAX913ESA+	-65C TO +150C (Condition C)	1000	CYS	100	0	NKE0C3073V
TEMP CYCLE, 5' RAMP, 10' DWELL	1639	MAX913ESA+	-65C TO +150C (Condition C)	1000	CYS	100	0	NKE0C3073W
TEMP CYCLE, 5' RAMP, 10' DWELL	1642	MAX9201EUE+	-65C TO +150C (Condition C)	1000	CYS	80	0	N0G0B3085EX
TEMP CYCLE, 5' RAMP, 10' DWELL	1645	MAX494ESD+	-65C TO +150C (Condition C)	500	CYS	100	0	N380B3103Q1
TEMP CYCLE, 5' RAMP, 10' DWELL	1645	MAX494ESD+	-65C TO +150C (Condition C)	500	CYS	100	0	N380B3103Q2
TEMP CYCLE, 5' RAMP, 10' DWELL	1645	MAX494ESD+	-65C TO +150C (Condition C)	500	CYS	100	0	N380B3103Q3
TEMP CYCLE, 5' RAMP, 10' DWELL	1653	MAX9201EUE+	-65C TO +150C (Condition C)	1000	CYS	80	0	N0G0BA086FX
<b>Total:</b>							<b>0</b>	

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**TEMPERATURE HUMIDITY BIAS**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
BIASED MOISTURE	1542	MAX3967AETG+	130C, 85%	100	HRS	80	0	NZ0AB00007
BIASED MOISTURE	1613	MAX4091AUA+	130C, 85%	96	HRS	80	0	N110BA083Q1
BIASED MOISTURE	1613	MAX4091AUA+	130C, 85%	96	HRS	85	0	N110BA083Q2
BIASED MOISTURE	1624	MAX913ESA+	130C, 85%	96	HRS	80	0	NKE0C3073HX
BIASED MOISTURE	1642	MAX9201EUE+	130C, 85%	96	HRS	80	0	N0G0B3085EX
BIASED MOISTURE	1653	MAX9201EUE+	130C, 85%	96	HRS	79	0	N0G0BA086FX
						<b>Total:</b>	<b>0</b>	

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**UNBIASED MOISTURE RESISTANCE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
MOISTURE SOAK	1635	MAX494ESD+	130C, 85%	96	HRS	80	0	N380BA102QA
MOISTURE SOAK	1639	MAX913ESA+	130C, 85%	96	HRS	80	0	NKE0C3073UC
MOISTURE SOAK	1639	MAX913ESA+	130C, 85%	96	HRS	79	0	NKE0C3073V
MOISTURE SOAK	1639	MAX913ESA+	130C, 85%	96	HRS	80	0	NKE0C3073W
						<b>Total:</b>	<b>0</b>	

**FAILURE RATE:**    **MTTF (YRS): 162002**    **QUANTITY: 796**    **FAILS: 0**    **FITS: 0.7**