

10/27/2017



**RELIABILITY MONITOR REPORT  
FOR**

**MFN B12**

**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:

MAX1281BEUP	MAX15034BAUI	MAX1617MEE+	MAX1709ESE+	MAX4475AUA+
MAX4478AUD+	MAX6069CAAW	MAX6414UK31/	MAX669EUB/V+	

The calculated failure rate for devices using this process is:

**FAILURE RATE:    MTTF (YRS): 123121    QUANTITY: 762    FAILS: 0    FITS: 0.9**

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 7/1/2017 and 9/30/2017 .

**Process Information:**

Process Description:            MFN B12

**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE		MAX6069CAAWS+T	135°C	192 HRS	80	0	JBNQ2Q003JA
HIGH TEMP OP LIFE	1622	MAX6414UK31/V+	135°C	1000 HRS	45	0	J8K2EA241GA
HIGH TEMP OP LIFE	1630	MAX1617MEE+	135°C	1000 HRS	80	0	J4BAMA303CX
HIGH TEMP OP LIFE	1644	MAX4475AUA+	135°C	1000 HRS	80	0	J3J0E3158BX
HIGH TEMP OP LIFE	1701	MAX4478AUD+	135°C	1000 HRS	80	0	J2P0EA173BX
HIGH TEMP OP LIFE	1711	MAX1281BEUP+	135°C	500 HRS	79	0	J4DAIA239I
HIGH TEMP OP LIFE	1711	MAX1281BEUP+	135°C	1000 HRS	78	0	J4DAIA239I
HIGH TEMP OP LIFE	1711	MAX1281BEUP+	135°C	1000 HRS	80	0	J4DAIA239F
HIGH TEMP OP LIFE	1711	MAX1281BEUP+	135°C	1000 HRS	80	0	J4DAIA239G
HIGH TEMP OP LIFE	1712	MAX669EUB/V+	135°C	1000 HRS	80	0	JYGBL3165BA
<b>Total:</b>						<b>0</b>	

**STORAGE LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1615	MAX1709ESE+	150°C	1000 HRS	80	0	JQ3AHA017Q1
STORAGE LIFE	1625	MAX15034BAUI/V+	150°C	500 HRS	80	0	JMWYAA010E
STORAGE LIFE	1625	MAX15034BAUI/V+	150°C	500 HRS	80	0	JMWYAA010EA
STORAGE LIFE	1625	MAX15034BAUI/V+	150°C	500 HRS	80	0	JMWYAA010EB
STORAGE LIFE	1630	MAX1617MEE+	150°C	1000 HRS	80	0	J4BAMA303CX
STORAGE LIFE	1644	MAX4475AUA+	150°C	1000 HRS	80	0	J3J0E3158BX
STORAGE LIFE	1701	MAX4478AUD+	150°C	1000 HRS	80	0	J2P0EA173BX

STORAGE LIFE	1711	MAX1281BEUP+	150°C	1000	HRS	90	0	J4DAIA239I
STORAGE LIFE	1711	MAX1281BEUP+	150°C	500	HRS	90	0	J4DAIA239F
STORAGE LIFE	1711	MAX1281BEUP+	150°C	1000	HRS	90	0	J4DAIA239F
STORAGE LIFE	1711	MAX1281BEUP+	150°C	500	HRS	90	0	J4DAIA239G
STORAGE LIFE	1711	MAX1281BEUP+	150°C	1000	HRS	90	0	J4DAIA239G
STORAGE LIFE	1712	MAX669EUB/V+	150°C	1000	HRS	80	0	JYGBL3165BA
<b>Total:</b>							<b>0</b>	

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### TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
TEMP CYCLE, 5' RAMP, 10' DWELL	1625	MAX15034BAUI/V+	-65C TO +150C (Condition C)	1000	CYS	80	0	JMWYAA010E
TEMP CYCLE, 5' RAMP, 10' DWELL	1625	MAX15034BAUI/V+	-65C TO +150C (Condition C)	1000	CYS	80	0	JMWYAA010EA
TEMP CYCLE, 5' RAMP, 10' DWELL	1625	MAX15034BAUI/V+	-65C TO +150C (Condition C)	1000	CYS	80	0	JMWYAA010EB
TEMP CYCLE, 5' RAMP, 10' DWELL	1630	MAX1617MEE+	-65C TO +150C (Condition C)	1000	CYS	80	0	J4BAMA303CX
TEMP CYCLE, 5' RAMP, 10' DWELL	1644	MAX4475AUA+	-65C TO +150C (Condition C)	1000	CYS	80	0	J3J0E3158BX
TEMP CYCLE, 5' RAMP, 10' DWELL	1701	MAX4478AUD+	-65C TO +150C (Condition C)	1000	CYS	80	0	J2P0EA173BX
TEMP CYCLE, 5' RAMP, 10' DWELL	1711	MAX1281BEUP+	-65C TO +150C (Condition C)	1000	CYS	80	0	J4DAIA239I
TEMP CYCLE, 5' RAMP, 10' DWELL	1711	MAX1281BEUP+	-65C TO +150C (Condition C)	500	CYS	90	0	J4DAIA239I
TEMP CYCLE, 5' RAMP, 10' DWELL	1711	MAX1281BEUP+	-65C TO +150C (Condition C)	500	CYS	110	0	J4DAIA239F
TEMP CYCLE, 5' RAMP, 10' DWELL	1711	MAX1281BEUP+	-65C TO +150C (Condition C)	1000	CYS	80	0	J4DAIA239F
TEMP CYCLE, 5' RAMP, 10' DWELL	1711	MAX1281BEUP+	-65C TO +150C (Condition C)	1000	CYS	80	0	J4DAIA239G
TEMP CYCLE, 5' RAMP, 10' DWELL	1712	MAX669EUB/V+	-65C TO +150C (Condition C)	1000	CYS	80	0	JYGBL3165BA
<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	1630	MAX1617MEE+	130C, 85%	96	HRS	80	0	J4BAMA303CX
BIASED MOISTURE	1644	MAX4475AUA+	130C, 85%	96	HRS	80	0	J3J0E3158BX

BIASED MOISTURE	1701	MAX4478AUD+	130C, 85%	96	HRS	80	0	J2P0EA173BX
BIASED MOISTURE	1712	MAX669EUB/V+	130C, 85%	96	HRS	80	0	JYGBl3165BA
<b>Total:</b>							<b>0</b>	

**UNBIASED MOISTURE RESISTANCE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
MOISTURE SOAK	1711	MAX1281BEUP+	130C, 85%	96	HRS	80	0	J4DAIA239F
MOISTURE SOAK	1711	MAX1281BEUP+	130C, 85%	96	HRS	80	0	J4DAIA239I
<b>Total:</b>							<b>0</b>	
<b>FAILURE RATE:</b>	<b>MTTF (YRS): 123121</b>		<b>QUANTITY: 762</b>	<b>FAILS: 0</b>		<b>FITS: 0.9</b>		