

1/24/2019



**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:

MAX15034BAUI	MAX1617AMEE	MAX1709ESE+	MAX4478AUD+	MAX5100BEUP
MAX6198BESA+	MAX669EUB+			

The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 119959 QUANTITY: 835 FAILS: 0 FITS: 1.0

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 10/1/2018 and 12/31/2018.

Process Information:

Process Description: MFN B12

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1738	MAX1709ESE+	135°C	192 HRS	40	0	JQ3AHA023DC
HIGH TEMP OP LIFE	1738	MAX1709ESE+	135°C	500 HRS	78	0	JQ3AHA023DE
HIGH TEMP OP LIFE	1738	MAX1709ESE+	135°C	192 HRS	80	0	JQ3AHA023DG
HIGH TEMP OP LIFE	1742	MAX6198BESA+	135°C	1000 HRS	79	0	JQ9CHA128JA
HIGH TEMP OP LIFE	1742	MAX6198BESA+	135°C	500 HRS	80	0	JQ9CHA128JB
HIGH TEMP OP LIFE	1747	MAX1617AMEE+	135°C	1000 HRS	80	0	J4BAMA336BX
HIGH TEMP OP LIFE	1805	MAX669EUB+	135°C	1000 HRS	80	0	JYGBLA191BX
HIGH TEMP OP LIFE	1813	MAX4478AUD+	125°C	500 HRS	80	0	J2P0EA194AX
HIGH TEMP OP LIFE	1818	MAX5100BEUP+	125°C	1000 HRS	79	0	J6YACA030C
HIGH TEMP OP LIFE	1818	MAX5100BEUP+	125°C	1000 HRS	80	0	J6YACA030CA
HIGH TEMP OP LIFE	1818	MAX5100BEUP+	125°C	1000 HRS	79	0	J6YACA030CB
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1738	MAX1709ESE+	150°C	1000 HRS	80	0	JQ3AHA023DC
STORAGE LIFE	1738	MAX1709ESE+	150°C	1000 HRS	20	0	JQ3AHA023DC
STORAGE LIFE	1738	MAX1709ESE+	150°C	1000 HRS	80	0	JQ3AHA023DE
STORAGE LIFE	1738	MAX1709ESE+	150°C	1000 HRS	80	0	JQ3AHA023DG
STORAGE LIFE	1742	MAX6198BESA+	150°C	1000 HRS	80	0	JQ9CHA128JA
STORAGE LIFE	1742	MAX6198BESA+	150°C	1000 HRS	80	0	JQ9CHA128JB

STORAGE LIFE	1747	MAX1617AMEE+	150°C	1000	HRS	80	0	J4BAMA336BX
STORAGE LIFE	1805	MAX15034BAUI/V+	150°C	1000	HRS	28	0	JMWWYAA018BA
STORAGE LIFE	1805	MAX669EUB+	150°C	1000	HRS	80	0	JYGBLA191BX
STORAGE LIFE	1813	MAX4478AUD+	150°C	1000	HRS	80	0	J2P0EA194AX
STORAGE LIFE	1818	MAX5100BEUP+	150°C	1000	HRS	79	0	J6YACA030C
STORAGE LIFE	1818	MAX5100BEUP+	150°C	1000	HRS	80	0	J6YACA030CA
STORAGE LIFE	1818	MAX5100BEUP+	150°C	1000	HRS	79	0	J6YACA030CB
STORAGE LIFE	1830	MAX4478AUD+	150°C	1000	HRS	79	0	J2P0E3197AX
STORAGE LIFE	1830	MAX4478AUD+	150°C	1000	HRS	80	0	J2P0E3197AX
Total:							0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
TEMP CYCLE, 5' RAMP, 10' DWELL	1738	MAX1709ESE+	-65C TO +150C (Condition C)	1000	CYS	85	0	JQ3AHA023DC
TEMP CYCLE, 5' RAMP, 10' DWELL	1738	MAX1709ESE+	-65C TO +150C (Condition C)	1000	CYS	85	0	JQ3AHA023DG
TEMP CYCLE, 5' RAMP, 10' DWELL	1742	MAX6198BESA+	-65C TO +150C (Condition C)	1000	CYS	80	0	JQ9CHA128JA
TEMP CYCLE, 5' RAMP, 10' DWELL	1742	MAX6198BESA+	-65C TO +150C (Condition C)	1000	CYS	80	0	JQ9CHA128JB
TEMP CYCLE, 5' RAMP, 10' DWELL	1747	MAX1617AMEE+	-65C TO +150C (Condition C)	500	CYS	80	0	J4BAMA336BX
TEMP CYCLE, 5' RAMP, 10' DWELL	1805	MAX669EUB+	-65C TO +150C (Condition C)	1000	CYS	80	0	JYGBLA191BX
TEMP CYCLE, 5' RAMP, 10' DWELL	1813	MAX4478AUD+	-65C TO +150C (Condition C)	500	CYS	80	0	J2P0EA194AX
TEMP CYCLE, 5' RAMP, 10' DWELL	1818	MAX5100BEUP+	-65C TO +150C (Condition C)	1000	CYS	80	0	J6YACA030C
TEMP CYCLE, 5' RAMP, 10' DWELL	1818	MAX5100BEUP+	-65C TO +150C (Condition C)	1000	CYS	80	0	J6YACA030CA
TEMP CYCLE, 5' RAMP, 10' DWELL	1818	MAX5100BEUP+	-65C TO +150C (Condition C)	1000	CYS	78	0	J6YACA030CB
TEMP CYCLE, 5' RAMP, 10' DWELL	1830	MAX4478AUD+	-65C TO +150C (Condition C)	1000	CYS	80	0	J2P0E3197AX
Total:							0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
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BIASED MOISTURE	1738	MAX1709ESE+	85 C/85% R.H.	96	HRS	80	0	JQ3AHA023DC
BIASED MOISTURE	1738	MAX1709ESE+	85 C/85% R.H.	96	HRS	80	0	JQ3AHA023DE
BIASED MOISTURE	1738	MAX1709ESE+	85 C/85% R.H.	96	HRS	40	0	JQ3AHA023DG
BIASED MOISTURE	1738	MAX1709ESE+	85 C/85% R.H.	96	HRS	40	0	JQ3AHA023DG
BIASED MOISTURE	1742	MAX6198BESA+	85 C/85% R.H.	96	HRS	77	0	JQ9CHA128JA
BIASED MOISTURE	1747	MAX1617AMEE+	85 C/85% R.H.	96	HRS	79	0	J4BAMA336BX
BIASED MOISTURE	1805	MAX669EUB+	130C, 85% R.H.	96	HRS	80	0	JYGBLA191BX
BIASED MOISTURE	1813	MAX4478AUD+	130C, 85% R.H.		HRS	80	0	J2P0EA194AX
BIASED MOISTURE	1818	MAX5100BEUP+	130C, 85% R.H.	96	HRS	75	0	J6YACA030C
BIASED MOISTURE	1818	MAX5100BEUP+	130C, 85% R.H.	96	HRS	71	0	J6YACA030CA
BIASED MOISTURE	1818	MAX5100BEUP+	130C, 85% R.H.	96	HRS	80	0	J6YACA030CB
BIASED MOISTURE	1830	MAX4478AUD+	130C, 85% R.H.	96	HRS	80	0	J2P0E3197AX
Total:							0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
MOISTURE SOAK	1738	MAX1709ESE+	130C, 85% R.H.	96	HRS	80	0	JQ3AHA023DC
MOISTURE SOAK	1738	MAX1709ESE+	130C, 85% R.H.	96	HRS	80	0	JQ3AHA023DE
MOISTURE SOAK	1738	MAX1709ESE+	130C, 85% R.H.	96	HRS	80	0	JQ3AHA023DG
MOISTURE SOAK	1742	MAX6198BESA+	130C, 85% R.H.	96	HRS	80	0	JQ9CHA128JA
MOISTURE SOAK	1742	MAX6198BESA+	130C, 85% R.H.	96	HRS	80	0	JQ9CHA128JB
Total:							0	

FAILURE RATE: MTTF (YRS): 119959 QUANTITY: 835 FAILS: 0 FITS: 1.0