

8/1/2019



**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:

LM4040AEM3-2.	MAX15034BAUI	MAX4477AUA/V	MAX4478AUD+	MAX5100BEUP+
MAX669EUB/V+				

The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 130997 QUANTITY: 716 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 4/1/2019 and 8/1/2019 .

Process Information:

Process Description: MFN B12

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
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
HIGH TEMP OP LIFE	1830	MAX4478AUD+	125°C	1000 HRS	79	0	J2P0E3197AX
HIGH TEMP OP LIFE	1846	MAX4477AUA/V+	125°C	1000 HRS	80	0	J290EA277AA
HIGH TEMP OP LIFE	1846	MAX4477AUA/V+	125°C	1000 HRS	80	0	J290EA277AB
HIGH TEMP OP LIFE	1846	MAX4477AUA/V+	125°C	1000 HRS	80	0	J290EA277AC
HIGH TEMP OP LIFE	1911	MAX669EUB/V+	125°C	1000 HRS	79	0	JYGBLA224BX
				Total:		0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1805	MAX15034BAUI/V+	150°C	1000 HRS	28	0	JMWYAA018BA
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	80	0	J2P0E3197AX
STORAGE LIFE	1846	MAX4477AUA/V+	150°C	1000 HRS	80	0	J290EA277AA
STORAGE LIFE	1846	MAX4477AUA/V+	150°C	1000 HRS	80	0	J290EA277AB

STORAGE LIFE	1846	MAX4477AUA/V+	150°C	1000 HRS	80	0	J290EA277AC
STORAGE LIFE	1847	LM4040AEM3-2.5+T	150°C	1000 HRS	79	0	J57CEA342CB
STORAGE LIFE	1911	MAX669EUB/V+	150°C	1000 HRS	80	0	JYGBLA224BX
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
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
TEMP CYCLE, 5' RAMP, 10' DWELL	1846	MAX4477AUA/V+	-65C TO +150C (Condition C)	1000 CYS	100	0	J290EA277AA
TEMP CYCLE, 5' RAMP, 10' DWELL	1846	MAX4477AUA/V+	-65C TO +150C (Condition C)	1000 CYS	100	0	J290EA277AB
TEMP CYCLE, 5' RAMP, 10' DWELL	1846	MAX4477AUA/V+	-65C TO +150C (Condition C)	1000 CYS	100	0	J290EA277AC
TEMP CYCLE, 5' RAMP, 10' DWELL	1847	LM4040AEM3-2.5+T	-65C TO +150C (Condition C)	1000 CYS	77	0	J57CEA342CB
TEMP CYCLE, 5' RAMP, 10' DWELL	1911	MAX669EUB/V+	-65C TO +150C (Condition C)	1000 CYS	80	0	JYGBLA224BX
Total:						0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
BIASED MOISTURE	1813	MAX4478AUD+	130C, 85% R.H.	96 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
BIASED MOISTURE	1846	MAX4477AUA/V+	130C, 85% R.H.	96 HRS	80	0	J290EA277AA
BIASED MOISTURE	1846	MAX4477AUA/V+	130C, 85% R.H.	96 HRS	80	0	J290EA277AB
BIASED MOISTURE	1846	MAX4477AUA/V+	130C, 85% R.H.	96 HRS	80	0	J290EA277AC
MOISTURE SOAK	1911	MAX669EUB/V+	130C, 85% R.H.	96 HRS	80	0	JYGBLA224BX
Total:						0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE	TEST	CONDITION	READPOINT	QUANTITY	FAILS	LOT
	CODE	VEHICLE					NO.
MOISTURE SOAK	1846	MAX4477AUA/V+	130C, 85% R.H.	96 HRS	80	0	J290EA277AA
MOISTURE SOAK	1846	MAX4477AUA/V+	130C, 85% R.H.	96 HRS	80	0	J290EA277AB
MOISTURE SOAK	1846	MAX4477AUA/V+	130C, 85% R.H.	96 HRS	80	0	J290EA277AC
MOISTURE SOAK	1847	LM4040AEM3-2.5+T	130C, 85% R.H.	96 HRS	75	0	J57CEA342CB
				Total:		0	

FAILURE RATE: **MTTF (YRS): 130997** **QUANTITY: 716** **FAILS: 0** **FITS: 0.9**