

10/27/2017



**RELIABILITY MONITOR REPORT
FOR**

MFN B8

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:

MAX13089EESD	MAX1954AEUB	MAX5073ETI+	MAX6414UK31/	MAX6425UK23+
MAX6896AAZT/	MAX8521ETP+	MAX9017AEKA/	MAX9017AEKA/	MAX9027EWT+
MAX9028EBT+T	MAX9634HEWS	MAX9938FELT+		

The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 255986 QUANTITY: 1402 FAILS: 0 FITS: 0.4

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 B8

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1414	MAX9938FELT+	135°C	500 HRS	80	0	JMKYCA086FA
HIGH TEMP OP LIFE	1414	MAX9938FELT+	135°C	1000 HRS	80	0	JMKYCA086FA
HIGH TEMP OP LIFE	1617	MAX9017AEKA/V+	135°C	1000 HRS	78	0	JER0CA212Q1
HIGH TEMP OP LIFE	1617	MAX9017AEKA/V+	135°C	1000 HRS	78	0	JER0CA212Q2
HIGH TEMP OP LIFE	1617	MAX9017AEKA/V+	135°C	1000 HRS	79	0	JER0CA212Q3
HIGH TEMP OP LIFE	1627	MAX13089EESD+	135°C	1000 HRS	80	0	JAP9EA454CX
HIGH TEMP OP LIFE	1642	MAX6896AAZT/V+	135°C	1000 HRS	80	0	JIABBA062IA
HIGH TEMP OP LIFE	1642	MAX6896AAZT/V+	135°C	1000 HRS	80	0	JIABBA062I
HIGH TEMP OP LIFE	1642	MAX6896AAZT/V+	135°C	1000 HRS	80	0	JIABBA062IB
HIGH TEMP OP LIFE	1645	MAX1954AEUB+	135°C	1000 HRS	45	0	JHK1DA239DX
HIGH TEMP OP LIFE	1651	MAX9017AEKA/V+T	135°C	1000 HRS	81	0	JER0CA226QA
HIGH TEMP OP LIFE	1651	MAX9017AEKA/V+T	135°C	1000 HRS	82	0	JER0CA226QB
HIGH TEMP OP LIFE	1651	MAX9017AEKA/V+T	135°C	1000 HRS	83	0	JER0CA226QC
HIGH TEMP OP LIFE	1703	MAX13089EESD+	135°C	1000 HRS	80	0	JAP9EA541CX
HIGH TEMP OP LIFE	1714	MAX8521ETP+	135°C	1000 HRS	80	0	JMX1F3233BX
HIGH TEMP OP LIFE	1727	MAX9017AEKA/V+T	135°C	1000 HRS	77	0	JER0C2150GA
HIGH TEMP OP LIFE	1727	MAX9017AEKA/V+T	135°C	1000 HRS	80	0	JER0C2150GB
HIGH TEMP OP LIFE	1727	MAX9017AEKA/V+T	135°C	1000 HRS	79	0	JER0C2150GC
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1414	MAX9938FELT+	150°C	1000 HRS	80	0	JMKYCA086FA
STORAGE LIFE	1422	MAX9938FELT+	150°C	1000 HRS	80	0	JMKYCA089AA
STORAGE LIFE	1505	MAX9938FELT+	150°C	1000 HRS	80	0	JMKYCA096DA
STORAGE LIFE	1616	MAX6425UK23+	150°C	1000 HRS	80	0	J612E3045IA (PQ)
STORAGE LIFE	1616	MAX6425UK23+	150°C	500 HRS	41	0	J612E3045IB (PQ)
STORAGE LIFE	1616	MAX6425UK23+	150°C	1000 HRS	79	0	J612E3045JB (PQ)
STORAGE LIFE	1617	MAX9017AEKA/V+	150°C	1000 HRS	90	0	JER0CA212Q1
STORAGE LIFE	1617	MAX9017AEKA/V+	150°C	1000 HRS	87	0	JER0CA212Q2
STORAGE LIFE	1617	MAX9017AEKA/V+	150°C	1000 HRS	80	0	JER0CA212Q3
STORAGE LIFE	1619	MAX5073ETI+	150°C	1000 HRS	80	0	JRJ1EA043E
STORAGE LIFE	1621	MAX6896AAZT/V+	150°C	1000 HRS	77	0	JIABBA082GA
STORAGE LIFE	1621	MAX6896AAZT/V+	150°C	1000 HRS	78	0	JIABBA082HA
STORAGE LIFE	1621	MAX6896AAZT/V+	150°C	1000 HRS	79	0	JIABBA082IA
STORAGE LIFE	1622	MAX6414UK31/V+	150°C	1000 HRS	80	0	J8K2EA241GA
STORAGE LIFE	1627	MAX13089EESD+	150°C	1000 HRS	80	0	JAP9EA454CX
STORAGE LIFE	1645	MAX1954AEUB+	150°C	1000 HRS	80	0	JHK1DA239DX
STORAGE LIFE	1703	MAX13089EESD+	150°C	1000 HRS	80	0	JAP9EA541CX
STORAGE LIFE	1714	MAX8521ETP+	150°C	1000 HRS	80	0	JMX1F3233BX
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	1414	MAX9938FELT+	-65C TO +150C (Condition C)	500 CYS	80	0	JMKYCA086FA
TEMP CYCLE, 5' RAMP, 10' DWELL	1422	MAX9938FELT+	-65C TO +150C (Condition C)	500 CYS	80	0	JMKYCA089AA
TEMP CYCLE, 5' RAMP, 10' DWELL	1505	MAX9938FELT+	-65C TO +150C (Condition C)	500 CYS	80	0	JMKYCA096DA
TEMP CYCLE, 5' RAMP, 10' DWELL	1616	MAX6425UK23+	-65C TO +150C (Condition C)	500 CYS	80	0	J612E3045IA (PQ)
TEMP CYCLE, 5' RAMP, 10' DWELL	1616	MAX6425UK23+	-65C TO +150C (Condition C)	500 CYS	71	0	J612E3045IB (PQ)
TEMP CYCLE, 5' RAMP, 10' DWELL	1616	MAX6425UK23+	-65C TO +150C (Condition C)	500 CYS	80	0	J612E3045JB (PQ)

TEMP CYCLE, 5' RAMP, 10' DWELL	1619	MAX5073ETI+	-65C TO +150C (Condition C)	1000	CYS	80	0	JRJ1EA043E
TEMP CYCLE, 5' RAMP, 10' DWELL	1622	MAX6414UK31/V+	-65C TO +150C (Condition C)	1000	CYS	120	0	J8K2EA241GH
TEMP CYCLE, 5' RAMP, 10' DWELL	1627	MAX13089EESD+	-65C TO +150C (Condition C)	1000	CYS	80	0	JAP9EA454CX
TEMP CYCLE, 15' RAMP, 15' DWELL	1636	MAX9027EWT+	-40C TO +125C (Condition G)	850	CYS	80	0	JOY2CA147I#
TEMP CYCLE, 15' RAMP, 15' DWELL	1636	MAX9027EWT+	-40C TO +125C (Condition G)	850	CYS	80	0	JOY2CA147F#
TEMP CYCLE, 5' RAMP, 10' DWELL	1642	MAX6896AAZT/V+	-65C TO +150C (Condition C)	1000	CYS	84	0	JIABBA062IA
TEMP CYCLE, 5' RAMP, 10' DWELL	1642	MAX6896AAZT/V+	-65C TO +150C (Condition C)	1000	CYS	85	0	JIABBA062I
TEMP CYCLE, 5' RAMP, 10' DWELL	1642	MAX6896AAZT/V+	-65C TO +150C (Condition C)	1000	CYS	85	0	JIABBA062IB
TEMP CYCLE, 15' RAMP, 15' DWELL	1643	MAX9028EBT+TCHE	-40C TO +125C (Condition G)	100	CYS	80	0	JOY3CA167AE
TEMP CYCLE, 15' RAMP, 15' DWELL	1644	MAX9028EBT+TCHE	-40C TO +125C (Condition G)	100	CYS	80	0	JOY3CA161AE
TEMP CYCLE, 15' RAMP, 15' DWELL	1644	MAX9028EBT+TCHE	-40C TO +125C (Condition G)	100	CYS	80	0	JOY3CA166AC
TEMP CYCLE, 5' RAMP, 10' DWELL	1645	MAX1954AEUB+	-65C TO +150C (Condition C)	1000	CYS	80	0	JHK1DA239DX
TEMP CYCLE, 15' RAMP, 15' DWELL	1647	MAX9028EBT+TCHE	-40C TO +125C (Condition G)	100	CYS	80	0	JOY3CA162BB
TEMP CYCLE, 15' RAMP, 15' DWELL	1649	MAX9028EBT+TCHE	-40C TO +125C (Condition G)	100	CYS	80	0	JOY3CA163AB
TEMP CYCLE, 15' RAMP, 15' DWELL	1650	MAX9028EBT+TCHE	-40C TO +125C (Condition G)	100	CYS	80	0	JOY3CA165AB
TEMP CYCLE, 15' RAMP, 15' DWELL	1651	MAX9028EBT+TCHE	-40C TO +125C (Condition G)	100	CYS	80	0	JOY3CA169AE
TEMP CYCLE, 5' RAMP, 10' DWELL	1651	MAX9017AEKA/V+T	-65C TO +150C (Condition C)	500	CYS	120	0	JER0CA226QA
TEMP CYCLE, 5' RAMP, 10' DWELL	1651	MAX9017AEKA/V+T	-65C TO +150C (Condition C)	500	CYS	120	0	JER0CA226QB
TEMP CYCLE, 5' RAMP, 10' DWELL	1651	MAX9017AEKA/V+T	-65C TO +150C (Condition C)	500	CYS	120	0	JER0CA226QC

TEMP CYCLE, 5' RAMP, 10' DWELL	1703	MAX13089EESD+	-65C TO +150C (Condition C)	1000	CYS	80	0	JAP9EA541CX
TEMP CYCLE, 5' RAMP, 10' DWELL	1714	MAX8521ETP+	-65C TO +150C (Condition C)	1000	CYS	80	0	JMX1F3233BX
TEMP CYCLE, 15' RAMP, 15' DWELL	1719	MAX9634HEWS+TG7	-40C TO +125C (Condition G)	500	CYS	80	0	JMKXC3197FB
TEMP CYCLE, 5' RAMP, 10' DWELL	1727	MAX9017AEKA/V+T	-65C TO +150C (Condition C)	500	CYS	120	0	JER0C2150GB
TEMP CYCLE, 5' RAMP, 10' DWELL	1727	MAX9017AEKA/V+T	-65C TO +150C (Condition C)	500	CYS	120	0	JER0C2150GC
Total:							0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
BIASED MOISTURE	1414	MAX9938FELT+	130C, 85%	96	HRS	80	0	JMKYCA086FA
BIASED MOISTURE	1422	MAX9938FELT+	130C, 85%	96	HRS	20	0	JMKYCA089AA
BIASED MOISTURE	1505	MAX9938FELT+	130C, 85%	96	HRS	79	0	JMKYCA096DA
BIASED MOISTURE	1619	MAX5073ETI+	130C, 85%	100	HRS	37	0	JRJ1EA043E
BIASED MOISTURE	1627	MAX13089EESD+	130C, 85%	96	HRS	80	0	JAP9EA454CX
BIASED MOISTURE	1645	MAX1954AEUB+	130C, 85%	96	HRS	80	0	JHK1DA239DX
BIASED MOISTURE	1703	MAX13089EESD+		96	HRS	80	0	JAP9EA541CX
BIASED MOISTURE	1714	MAX8521ETP+	130C, 85%	96	HRS	80	0	JMX1F3233BX
BIASED MOISTURE	1719	MAX9634HEWS+TG7	110C, 85%	264	HRS	80	0	JMKXC3197FB
BIASED MOISTURE	1727	MAX9017AEKA/V+T	130C, 85%	100	HRS	80	0	JER0C2150GB
Total:							0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
MOISTURE SOAK	1414	MAX9938FELT+	130C, 85%	96	HRS	80	0	JMKYCA086FA
MOISTURE SOAK	1422	MAX9938FELT+	130C, 85%	96	HRS	80	0	JMKYCA089AA
MOISTURE SOAK	1505	MAX9938FELT+	130C, 85%	96	HRS	80	0	JMKYCA096DA
MOISTURE SOAK	1616	MAX6425UK23+	130C, 85%	96	HRS	79	0	J612E3045IA (PQ)
MOISTURE SOAK	1616	MAX6425UK23+	130C, 85%	96	HRS	33	0	J612E3045IB (PQ)
MOISTURE SOAK	1616	MAX6425UK23+	130C, 85%	96	HRS	80	0	J612E3045JB (PQ)
MOISTURE SOAK	1636	MAX9027EWT+	130C, 85%	96	HRS	80	0	JOY2CA147I#
MOISTURE SOAK	1642	MAX6896AAZT/V+	130C, 85%	96	HRS	80	0	JIABBA062IA
MOISTURE SOAK	1642	MAX6896AAZT/V+	130C, 85%	96	HRS	79	0	JIABBA062I
MOISTURE SOAK	1642	MAX6896AAZT/V+	130C, 85%	96	HRS	80	0	JIABBA062IB
MOISTURE SOAK	1651	MAX9017AEKA/V+T	130C, 85%	96	HRS	80	0	JER0CA226QA

MOISTURE SOAK	1651	MAX9017AEKA/V+T	130C, 85%	96	HRS	80	0	JER0CA226QB
MOISTURE SOAK	1651	MAX9017AEKA/V+T	130C, 85%	96	HRS	80	0	JER0CA226QC
MOISTURE SOAK	1719	MAX9634HEWS+TG7	130C, 85%	96	HRS	80	0	JMKXC3197FB
MOISTURE SOAK	1727	MAX9017AEKA/V+T	130C, 85%	96	HRS	80	0	JER0C2150GA
MOISTURE SOAK	1727	MAX9017AEKA/V+T	130C, 85%	96	HRS	80	0	JER0C2150GB
MOISTURE SOAK	1727	MAX9017AEKA/V+T	130C, 85%	96	HRS	80	0	JER0C2150GC

Total:
0

FAILURE RATE: **MTTF (YRS): 255986** **QUANTITY: 1402** **FAILS: 0** **FITS: 0.4**