

8/1/2019



**RELIABILITY MONITOR REPORT
FOR**

Fab 102 P90

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:

MAX77503AEW	MAX77503EEW	MAX77705CEW	MAX77705EWN	MAX77705FEW
MAX77718EWC	MAX98512BEW			

The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 95410 QUANTITY: 716 FAILS: 0 FITS: 1.2

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: Fab 102 P90

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1830	MAX77705EWN+T	125°C	1000 HRS	80	0	HCTN5Z006A
HIGH TEMP OP LIFE	1833	MAX77705FEWN+T	125°C	500 HRS	79	0	HCTN5Z008B
HIGH TEMP OP LIFE	1833	MAX77705CEWN+T	125°C	1000 HRS	80	0	HCUD9Q001EK
HIGH TEMP OP LIFE	1837	MAX77503AEWC+T	125°C	500 HRS	80	0	HBYG6Z011B
HIGH TEMP OP LIFE	1837	MAX77718EWC+T	125°C	1000 HRS	78	0	HBUK3Z011B
HIGH TEMP OP LIFE	1850	MAX77705FEWN+T	125°C	192 HRS	80	0	HCTN5Z011B
HIGH TEMP OP LIFE	1850	MAX77705FEWN+T	125°C	1000 HRS	80	0	HCTN5Z011B
HIGH TEMP OP LIFE	1850	MAX77705FEWN+T	125°C	500 HRS	79	0	HCTN5Z012B
HIGH TEMP OP LIFE	1850	MAX77705FEWN+T	125°C	500 HRS	80	0	HCTN5Z014B
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1830	MAX77705EWN+T	150°C	1000 HRS	80	0	HCTN5Z006A
STORAGE LIFE	1830	MAX77503EEWC+T	150°C	1000 HRS	80	0	HCAA3Z003A
STORAGE LIFE	1833	MAX77705FEWN+T	150°C	1000 HRS	80	0	HCTN5Z008B
STORAGE LIFE	1835	MAX77503EEWC+T	150°C	1000 HRS	80	0	HCAA3Z002A
STORAGE LIFE	1837	MAX77503AEWC+T	150°C	1000 HRS	80	0	HBYG6Z011B
STORAGE LIFE	1837	MAX77718EWC+T	150°C	1000 HRS	79	0	HBUK3Z011B
STORAGE LIFE	1848	MAX77503EEWC+T	150°C	1000 HRS	80	0	HCAA3Z001A
STORAGE LIFE	1850	MAX77705FEWN+T	150°C	1000 HRS	80	0	HCTN5Z012B

Total: 0

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
TEMP CYCLE, 5' RAMP, 10' DWELL	1830	MAX77503EEWC+T	-65C TO +150C (Condition C)	250	CYS	80	0	HCAA3Z003A
TEMP CYCLE, 5' RAMP, 10' DWELL	1835	MAX77503EEWC+T	-65C TO +150C (Condition C)	250	CYS	80	0	HCAA3Z002A
TEMP CYCLE, 5' RAMP, 10' DWELL	1848	MAX77503EEWC+T	-65C TO +150C (Condition C)	250	CYS	80	0	HCAA3Z001A
TEMP CYCLE, 5' RAMP, 10' DWELL	1850	MAX77705FEWN+T	-65C TO +150C (Condition C)	1000	CYS	80	0	HCTN5Z011B
TEMP CYCLE, 5' RAMP, 10' DWELL	1850	MAX77705FEWN+T	-65C TO +150C (Condition C)	1000	CYS	80	0	HCTN5Z012B
TEMP CYCLE, 5' RAMP, 10' DWELL	1850	MAX77705FEWN+T	-65C TO +150C (Condition C)	1000	CYS	79	0	HCTN5Z014B
TEMP CYCLE, 5' RAMP, 10' DWELL	1911	MAX98512BEWX+	-40C TO +125C (Condition G)	1000	CYS	80	0	HCTJ9A273A
TEMP CYCLE, 5' RAMP, 10' DWELL	1911	MAX98512BEWX+	-65C TO +150C (Condition C)	1000	CYS	80	0	HCTJ9A273B
TEMP CYCLE, 5' RAMP, 10' DWELL	1911	MAX98512BEWX+	-65C TO +150C (Condition C)	1000	CYS	80	0	HCTJ9A273C
						Total:	0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
BIASED MOISTURE	1830	MAX77705EWN+T	130C, 85% R.H.	96	HRS	79	0	HCTN5Z006A
BIASED MOISTURE	1833	MAX77705FEWN+T	130C, 85% R.H.	96	HRS	78	0	HCTN5Z008B
BIASED MOISTURE	1837	MAX77503AEWC+T	130C, 85% R.H.	96	HRS	80	0	HBYG6Z011B
BIASED MOISTURE	1837	MAX77718EWC+T	130C, 85% R.H.	96	HRS	80	0	HBUK3Z011B
BIASED MOISTURE	1848	MAX77503EEWC+T	130C, 85% R.H.	264	HRS	80	0	HCAA3Z001A
BIASED MOISTURE	1850	MAX77705FEWN+T	130C, 85% R.H.	96	HRS	8	0	HCTN5Z012B
BIASED MOISTURE	1850	MAX77705FEWN+T	130C, 85% R.H.	96	HRS	69	0	HCTN5Z014B
BIASED MOISTURE	1850	MAX77705FEWN+T	130C, 85% R.H.	96	HRS	12	0	HCTN5Z014B
BIASED MOISTURE	1911	MAX98512BEWX+	130C, 85% R.H.	264	HRS	70	0	HCTJ9A273A
						Total:	0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
MOISTURE SOAK	1830	MAX77705EWN+T	130C, 85% R.H.	96	HRS	80	0	HCTN5Z006A

MOISTURE SOAK	1830	MAX77503EEWC+T	130C, 85% R.H. 96	HRS	80	0	HCAA3Z003A
MOISTURE SOAK	1833	MAX77705FEWN+T	130C, 85% R.H. 96	HRS	79	0	HCTN5Z008B
MOISTURE SOAK	1835	MAX77503EEWC+T	130C, 85% R.H. 96	HRS	80	0	HCAA3Z002A
MOISTURE SOAK	1837	MAX77503AEWC+T	130C, 85% R.H. 96	HRS	80	0	HBYG6Z011B
MOISTURE SOAK	1837	MAX77718EWC+T	130C, 85% R.H. 96	HRS	80	0	HBUK3Z011B
MOISTURE SOAK	1848	MAX77503EEWC+T	130C, 85% R.H. 96	HRS	80	0	HCAA3Z001A
MOISTURE SOAK	1850	MAX77705FEWN+T	130C, 85% R.H. 96	HRS	80	0	HCTN5Z011B
MOISTURE SOAK	1850	MAX77705FEWN+T	130C, 85% R.H. 96	HRS	80	0	HCTN5Z012B
MOISTURE SOAK	1850	MAX77705FEWN+T	130C, 85% R.H. 96	HRS	80	0	HCTN5Z014B

Total: 0

FAILURE RATE: MTTF (YRS): 95410 QUANTITY: 716 FAILS: 0 FITS: 1.2