10/27/2020

RELIABILITY MONITOR REPORT
FOR

Epson MB3

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:

MAX2136AETJ/	MAX2172ETL+	MAX3945ETE+	MAX40026ATA/	MAX40027ATC/
MAX40027ATC/	MAX40213AWA	MAX40661ATB/	MAX40662ATE/	

The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 110784 QUANTITY: 844 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 7/1/2020 and 9/30/2020 .

Process Information:

Process Description: Epson MB3

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT		QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1903	MAX40026ATA/VY+	125°C	192	HRS	78	0	ECTP8Q001IQ
HIGH TEMP OP LIFE	1912	MAX40661ATB/VY+T	125°C	500	HRS	80	0	ECUR5Q001JB
HIGH TEMP OP LIFE	1912	MAX40661ATB/VY+T	125°C	500	HRS	80	0	ECUR5Q001JC
HIGH TEMP OP LIFE	1932	MAX40027ATC/VY+T	125°C	1000	HRS	78	0	ECTP8Q001OB
HIGH TEMP OP LIFE	1932	MAX40027ATC/VY+T	125°C	1000	HRS	80	0	ECTP8Q001OC
HIGH TEMP OP LIFE	1932	MAX40027ATC/VY+	125°C	1000	HRS	80	0	ECTP8Q001OD
HIGH TEMP OP LIFE	1937	MAX40662ATE/VY+	125°C	192	HRS	80	0	ECBT7Q001IQ
HIGH TEMP OP LIFE	1945	MAX2172ETL+	125°C	1000	HRS	80	0	EAKE6A378EX
HIGH TEMP OP LIFE	1947	MAX40213AWA+T	125°C	192	HRS	80	0	ECED2Q001CM
HIGH TEMP OP LIFE	2004	MAX2172ETL+	125°C	1000	HRS	80	0	EAKE6A403BX
HIGH TEMP OP LIFE	2023	MAX3945ETE+	125°C	1000	HRS	48	0	EBBS2A025AD
					Total:		**0**	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT		QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1912	MAX40661ATB/VY+T	150°C	500	HRS	80	0	ECUR5Q001JA
STORAGE LIFE	1912	MAX40661ATB/VY+T	150°C	500	HRS	80	0	ECUR5Q001JB
STORAGE LIFE	1912	MAX40661ATB/VY+T	150°C	500	HRS	80	0	ECUR5Q001JC
STORAGE LIFE	1932	MAX40027ATC/VY+T	150°C	1000	HRS	78	0	ECTP8Q001OB
STORAGE LIFE	1932	MAX40027ATC/VY+T	150°C	1000	HRS	80	0	ECTP8Q001OC
STORAGE LIFE	1932	MAX40027ATC/VY+	150°C	1000	HRS	79	0	ECTP8Q001OD

STORAGE LIFE	1932	MAX40027ATC/VY+	150°C	1000	HRS	80	0	NCCI4AAB
STORAGE LIFE	1932	MAX40027ATC/VY+	150°C	1000	HRS	80	0	NCCI4AAC
STORAGE LIFE	1932	MAX40027ATC/VY+	150°C	1000	HRS	80	0	NCCI4AAD
STORAGE LIFE	1933	MAX40661ATB/VY+T	150°C	500	HRS	80	0	ECUR4Q001JB
STORAGE LIFE	1933	MAX40661ATB/VY+T	150°C	500	HRS	80	0	ECUR4Q001JC
STORAGE LIFE	1933	MAX40661ATB/VY+T	150°C	1000	HRS	80	0	ECUR4Q001JD
STORAGE LIFE	1945	MAX2172ETL+	150°C	1000	HRS	80	0	EAKE6A378EX
STORAGE LIFE	2004	MAX2172ETL+	150°C	1000	HRS	80	0	EAKE6A403BX
STORAGE LIFE	2023	MAX3945ETE+	150°C	1000	HRS	80	0	EBBS2A025AD
					Total:		**0**	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT		QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	1907	MAX2136AETJ/V+	-65C TO +150C (Condition C)	1000	CYS	80	0	EAKK3A013F
TEMP CYCLE, 5' RAMP, 10' DWELL	1932	MAX40027ATC/VY+T	-65C TO +150C (Condition C)	1000	CYS	79	0	ECTP8Q001OB
TEMP CYCLE, 5' RAMP, 10' DWELL	1932	MAX40027ATC/VY+T	-65C TO +150C (Condition C)	1000	CYS	79	0	ECTP8Q001OC
TEMP CYCLE, 5' RAMP, 10' DWELL	1932	MAX40027ATC/VY+	-65C TO +150C (Condition C)	1000	CYS	79	0	ECTP8Q001OD
TEMP CYCLE, 5' RAMP, 10' DWELL	1945	MAX2172ETL+	-65C TO +150C (Condition C)	1000	CYS	80	0	EAKE6A378EX
TEMP CYCLE, 0' RAMP, 10' DWELL	1947	MAX40213AWA+T		1000	CYS	80	0	ECED2Q001CM
TEMP CYCLE, 0' RAMP, 10' DWELL	1947	MAX40213AWA+T	-40C TO +125C (Condtion B)	1000	CYS	80	0	ECED2Q001DM
TEMP CYCLE, 5' RAMP, 10' DWELL	2004	MAX2172ETL+	-65C TO +150C (Condition C)	500	CYS	80	0	EAKE6A403BX
TEMP CYCLE, 5' RAMP, 10' DWELL	2023	MAX3945ETE+	-65C TO +150C (Condition C)	500	CYS	80	0	EBBS2A025AD
					Total:		**0**	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT		QUANTITY	FAILS	LOT NO.
BIASED MOISTURE	1932	MAX40027ATC/VY+T	130C, 85% R.H.	96	HRS	78	0	ECTP8Q001OC
BIASED MOISTURE	1947	MAX40213AWA+T	130C, 85% R.H.	264	HRS	80	0	ECED2Q001CM
BIASED MOISTURE	1947	MAX40213AWA+T	130C, 85% R.H.	264	HRS	80	0	ECED2Q001DM
BIASED MOISTURE	2011	MAX40213AWA+T	130C, 85% R.H.	264	HRS	80	0	ECED2Q001FF
					Total:		**0**	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT		QUANTITY	FAILS	LOT NO.
MOISTURE SOAK	1945	MAX2172ETL+	130C, 85% R.H.	96	HRS	80	0	EAKE6A378EX
MOISTURE SOAK	2004	MAX2172ETL+	130C, 85% R.H.	96	CYS	80	0	EAKE6A403BX
MOISTURE SOAK	2023	MAX3945ETE+	130C, 85% R.H.	96	HRS	80	0	EBBS2A025AD
					Total:		**0**	

FAILURE RATE: MTTF (YRS): 110784 QUANTITY: 844 FAILS: 0 FITS: 1.0