

1/24/2019



**RELIABILITY MONITOR REPORT
FOR**

Epson C6

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:

MAX1030BEEG	MAX1138EEE+	MAX1231BCEG	MAX1257BETM	MAX5441AEUA
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The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 85264 QUANTITY: 480 FAILS: 0 FITS: 1.3

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: Epson C6

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE		MAX1138EEE+	125°C	500 HRS	80	0	E3N21A145BA
HIGH TEMP OP LIFE		MAX1138EEE+	125°C	1000 HRS	80	0	E3N21A145BB
HIGH TEMP OP LIFE	1741	MAX1030BEEG+	135°C	1000 HRS	80	0	EF4ZAA070FA
HIGH TEMP OP LIFE	1812	MAX5441AEUA+	125°C	1000 HRS	80	0	E1LBGA035FD
HIGH TEMP OP LIFE	1817	MAX1231BCEG+	125°C	1000 HRS	80	0	EF4ZAA072BC
HIGH TEMP OP LIFE	1817	MAX1231BCEG+	125°C	1000 HRS	80	0	EF4ZAA072BD
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE		MAX1138EEE+	150°C	1000 HRS	80	0	E3N21A145BA
STORAGE LIFE		MAX1138EEE+	150°C	1000 HRS	80	0	E3N21A145BB
STORAGE LIFE	1741	MAX1030BEEG+	150°C	1000 HRS	80	0	EF4ZAA070FA
STORAGE LIFE	1804	MAX1257BETM+	150°C	1000 HRS	80	0	EEQ1KA253DA
STORAGE LIFE	1812	MAX5441AEUA+	150°C	1000 HRS	79	0	E1LBGA035FD
STORAGE LIFE	1817	MAX1231BCEG+	150°C	1000 HRS	80	0	EF4ZAA072BC
STORAGE LIFE	1817	MAX1231BCEG+	150°C	1000 HRS	80	0	EF4ZAA072BD
STORAGE LIFE	1828	MAX1030BEEG+	150°C	1000 HRS	80	0	EF4ZAA077DX
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
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TEMP CYCLE, 5' RAMP, 10' DWELL		MAX1138EEE+	-65C TO +150C (Condition C)	1000	CYS	78	0	E3N21A145BA
TEMP CYCLE, 5' RAMP, 10' DWELL		MAX1138EEE+	-65C TO +150C (Condition C)	1000	CYS	78	0	E3N21A145BB
TEMP CYCLE, 5' RAMP, 10' DWELL	1741	MAX1030BEEG+	-65C TO +150C (Condition C)	1000	CYS	80	0	EF4ZAA070FA
TEMP CYCLE, 5' RAMP, 10' DWELL	1804	MAX1257BETM+	-65C TO +150C (Condition C)	1000	CYS	80	0	EEQ1KA253DA
TEMP CYCLE, 5' RAMP, 10' DWELL	1812	MAX5441AEUA+	-65C TO +150C (Condition C)	1000	CYS	80	0	E1LBGA035FD
TEMP CYCLE, 5' RAMP, 10' DWELL	1828	MAX1030BEEG+	-65C TO +150C (Condition C)	1000	CYS	80	0	EF4ZAA077DX
Total:							0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE	TEST CODE VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
BIASED MOISTURE	1741	MAX1030BEEG+	85 C/85% R.H.	96	HRS	320	0	EF4ZAA070FA
BIASED MOISTURE	1804	MAX1257BETM+	130C, 85% R.H.	96	HRS	80	0	EEQ1KA253DA
BIASED MOISTURE	1812	MAX5441AEUA+	130C, 85% R.H.	96	HRS	80	0	E1LBGA035FD
BIASED MOISTURE	1817	MAX1231BCEG+	130C, 85% R.H.	96	HRS	80	0	EF4ZAA072BC
BIASED MOISTURE	1817	MAX1231BCEG+	130C, 85% R.H.	96	HRS	80	0	EF4ZAA072BD
BIASED MOISTURE	1828	MAX1030BEEG+	130C, 85% R.H.	96	HRS	80	0	EF4ZAA077DX
Total:							0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE	TEST CODE VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
MOISTURE SOAK		MAX1138EEE+	130C, 85% R.H.	96	HRS	80	0	E3N21A145BA
MOISTURE SOAK		MAX1138EEE+	130C, 85% R.H.	96	HRS	80	0	E3N21A145BB
Total:							0	

FAILURE RATE: MTTF (YRS): 85264 QUANTITY: 480 FAILS: 0 FITS: 1.3