

10/27/2017



**RELIABILITY MONITOR REPORT
FOR**

Epson S4

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:

MAX1358BETL+	MAX15038ETG+	MAX16065ETM	MAX16833CAU	MAX16907SATE
MAX17845ACB/	MAX1785EUU+			

The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 92240 QUANTITY: 476 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 7/1/2017 and 9/30/2017 .

Process Information:

Process Description: Epson S4

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1618	MAX16833CAUE/V+	135°C	1000 HRS	78	0	EAOQ2A011A
HIGH TEMP OP LIFE	1620	MAX16065ETM+	135°C	1000 HRS	45	0	EAGS5A010S
HIGH TEMP OP LIFE	1620	MAX16065ETM+	135°C	1000 HRS	35	0	EAGS5A010S
HIGH TEMP OP LIFE	1631	MAX1785EUU+	135°C	1000 HRS	80	0	EK61LA106FG
HIGH TEMP OP LIFE	1650	MAX15038ETG+	135°C	1000 HRS	48	0	EBKL4Q001CX
HIGH TEMP OP LIFE	1650	MAX15038ETG+	135°C	1000 HRS	32	0	EBKL4Q001CX
HIGH TEMP OP LIFE	1707	MAX16907SATE/V+	135°C	1000 HRS	79	0	EBPH3Q001BC
HIGH TEMP OP LIFE	1716	MAX1358BETL+	135°C	1000 HRS	79	0	EMJZEA133DA
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1618	MAX16833CAUE/V+	150°C	1000 HRS	80	0	EAOQ2A011A
STORAGE LIFE	1620	MAX16065ETM+	150°C	1000 HRS	80	0	EAGS5A010S
STORAGE LIFE	1631	MAX1785EUU+	150°C	1000 HRS	80	0	EK61LA106FG
STORAGE LIFE	1650	MAX15038ETG+	150°C	1000 HRS	80	0	EBKL4Q001CX
STORAGE LIFE	1707	MAX16907SATE/V+	150°C	1000 HRS	80	0	EBPH3Q001BC
STORAGE LIFE	1710	MAX17845ACB/V+CJT	150°C	1000 HRS	79	0	EBPA8Q001B
STORAGE LIFE	1716	MAX1358BETL+	150°C	1000 HRS	80	0	EMJZEA133DA
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	1620	MAX16065ETM+	-65C TO +150C (Condition C)	1000 CYS	80	0	EAGS5A010S
TEMP CYCLE, 5' RAMP, 10' DWELL	1631	MAX1785EUU+	-65C TO +150C (Condition C)	1000 CYS	80	0	EK61LA106FG
TEMP CYCLE, 5' RAMP, 10' DWELL	1650	MAX15038ETG+	-65C TO +150C (Condition C)	1000 CYS	80	0	EBKL4Q001CX
TEMP CYCLE, 5' RAMP, 10' DWELL	1707	MAX16907SATE/V+	-65C TO +150C (Condition C)	1000 CYS	85	0	EBPH3Q001BC
TEMP CYCLE, 5' RAMP, 10' DWELL	1710	MAX17845ACB/V+CJT	-65C TO +150C (Condition C)	1000 CYS	80	0	EBPA8Q001B
TEMP CYCLE, 5' RAMP, 10' DWELL	1716	MAX1358BETL+	-65C TO +150C (Condition C)	1000 CYS	80	0	EMJZEA133DA
Total:						0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
BIASED MOISTURE	1611	MAX16065ETM+	130C, 85%	100 HRS	80	0	EAGS5A014L
BIASED MOISTURE	1618	MAX16833CAUE/V+	130C, 85%	96 HRS	20	0	EAOQ2A011A
BIASED MOISTURE	1620	MAX16065ETM+	130C, 85%	96 HRS	80	0	EAGS5A010S
BIASED MOISTURE	1631	MAX1785EUU+	130C, 85%	96 HRS	80	0	EK61LA106FG
BIASED MOISTURE	1650	MAX15038ETG+	130C, 85%	96 HRS	80	0	EBKL4Q001CX
BIASED MOISTURE	1707	MAX16907SATE/V+	130C, 85%	96 HRS	37	0	EBPH3Q001BC
BIASED MOISTURE	1707	MAX16907SATE/V+	130C, 85%	96 HRS	10	0	EBGZ9A009E
BIASED MOISTURE	1710	MAX17845ACB/V+CJT	130C, 85%	96 HRS	80	0	EBPA8Q001B
Total:						0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
MOISTURE SOAK	1707	MAX16907SATE/V+	130C, 85%	96 HRS	80	0	EBPH3Q001BC
MOISTURE SOAK	1710	MAX17845ACB/V+CJT	130C, 85%	96 HRS	80	0	EBPA8Q001B
Total:						0	

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