

6/25/2020



**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+	MAX16833CAU	MAX16984RATI/	MAX17840AGU	MAX8556ETE+
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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 1/1/2020 and 6/25/2020 .

Process Information:

Process Description: Epson S4

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1848	MAX8556ETE+	125°C	1000 HRS	80	0	EBLZ8A054AX
HIGH TEMP OP LIFE	1923	MAX16984RATI/V+	125°C	1000 HRS	79	0	EBOR5A024BX
HIGH TEMP OP LIFE	1933	MAX17840AGUN/V+	125°C	1000 HRS	79	0	EBRI9Q002G
HIGH TEMP OP LIFE	1936	MAX16833CAUE/V+CLN	125°C	1000 HRS	80	0	EBQS7A120AX
HIGH TEMP OP LIFE	1938	MAX17840AGUN/V+	125°C	1000 HRS	78	0	EBRI9A005D
HIGH TEMP OP LIFE	1938	MAX17840AGUN/V+	125°C	1000 HRS	80	0	EBRI9A005E
				Total:		0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1923	MAX16984RATI/V+	150°C	1000 HRS	80	0	EBOR5A024BX
STORAGE LIFE	1933	MAX17840AGUN/V+	150°C	1000 HRS	80	0	EBRI9Q002G
STORAGE LIFE	1935	MAX1358BETL+	150°C	1000 HRS	80	0	EMJZEA136AX
STORAGE LIFE	1936	MAX16833CAUE/V+CLN	150°C	1000 HRS	80	0	EBQS7A120AX
				Total:		0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	1848	MAX8556ETE+	-65C TO +150C (Condition C)	1000 CYS	80	0	EBLZ8A054AX
TEMP CYCLE, 5' RAMP, 10' DWELL	1923	MAX16984RATI/V+	-65C TO +150C (Condition C)	1000 CYS	80	0	EBOR5A024BX

TEMP CYCLE, 5' RAMP, 10' DWELL	1935	MAX1358BETL+	-65C TO +150C (Condition C)	1000	CYS	80	0	EMJZEA136AX
TEMP CYCLE, 5' RAMP, 10' DWELL	1936	MAX16833CAUE/V+CLN	-65C TO +150C (Condition C)	1000	CYS	80	0	EBQS7A120AX

Total: 0

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE	TEST CODE	VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
BIASED MOISTURE	1848	MAX8556ETE+		130C, 85% R.H.	96 HRS	80	0	EBLZ8A054AX
BIASED MOISTURE	1923	MAX16984RATI/V+		130C, 85% R.H.	96 HRS	80	0	EBOR5A024BX
BIASED MOISTURE	1933	MAX17840AGUN/V+		130C, 85% R.H.	96 HRS	54	0	EBRI9Q002G
BIASED MOISTURE	1933	MAX17840AGUN/V+		130C, 85% R.H.	96 HRS	26	0	EBRI9Q002G
BIASED MOISTURE	1936	MAX16833CAUE/V+CLN		130C, 85% R.H.	96 HRS	69	0	EBQS7A120AX
BIASED MOISTURE	1936	MAX16833CAUE/V+CLN		130C, 85% R.H.	96 HRS	11	0	EBQS7A120AX
BIASED MOISTURE	1938	MAX17840AGUN/V+		130C, 85% R.H.	96 HRS	53	0	EBRI9A005D
BIASED MOISTURE	1938	MAX17840AGUN/V+		130C, 85% R.H.	96 HRS	27	0	EBRI9A005D
BIASED MOISTURE	1938	MAX17840AGUN/V+		130C, 85% R.H.	96 HRS	53	0	EBRI9A005E
BIASED MOISTURE	1938	MAX17840AGUN/V+		130C, 85% R.H.	96 HRS	27	0	EBRI9A005E

Total: 0

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE	TEST CODE	VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
MOISTURE SOAK	1935	MAX1358BETL+		130C, 85% R.H.	96 HRS	80	0	EMJZEA136AX

Total: 0

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