

1/24/2019



**RELIABILITY MONITOR REPORT  
FOR**

**MFN SG5**

**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:

MAX222CWN+	MAX232ACWE+	MAX232AEWE+
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The calculated failure rate for devices using this process is:

**FAILURE RATE:    MTTF (YRS): 45539    QUANTITY: 235    FAILS: 0    FITS: 2.5**

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.

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**Process Information:**

Process Description:            MFN SG5

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**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1721	MAX232AEWE+	135°C	1000 HRS	77	0	NQS0AA569B
HIGH TEMP OP LIFE	1746	MAX232ACWE+	135°C	1000 HRS	78	0	NQS0AA584B
HIGH TEMP OP LIFE	1808	MAX222CWN+	125°C	1000 HRS	80	0	NQS4AA608A
<b>Total:</b>						<b>0</b>	

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**STORAGE LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1746	MAX232ACWE+	150°C	1000 HRS	80	0	NQS0AA584B
STORAGE LIFE	1808	MAX222CWN+	150°C	1000 HRS	80	0	NQS4AA608A
STORAGE LIFE	1822	MAX232ACWE+	150°C	1000 HRS	80	0	NQS0A3984D
<b>Total:</b>						<b>0</b>	

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**TEMPERATURE CYCLE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	1746	MAX232ACWE+	-65C TO +150C (Condition C)	500 CYS	80	0	NQS0AA584B
TEMP CYCLE, 5' RAMP, 10' DWELL	1808	MAX222CWN+	-65C TO +150C (Condition C)	500 CYS	80	0	NQS4AA608A
TEMP CYCLE, 5' RAMP, 10' DWELL	1822	MAX232ACWE+	-65C TO +150C (Condition C)	1000 CYS	80	0	NQS0A3984D
<b>Total:</b>						<b>0</b>	

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**TEMPERATURE HUMIDITY BIAS**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
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BIASED MOISTURE	1746	MAX232ACWE+	85 C/85% R.H.	96	HRS	79	0	NQS0AA584B
BIASED MOISTURE	1808	MAX222CWN+	130C, 85% R.H.	96	HRS	79	0	NQS4AA608A
BIASED MOISTURE	1822	MAX232ACWE+	130C, 85% R.H.		HRS	80	0	NQS0A3984D
					<b>Total:</b>		<b>0</b>	

**FAILURE RATE:**    **MTTF (YRS): 45539**    **QUANTITY: 235**    **FAILS: 0**    **FITS: 2.5**