

1/24/2019



RELIABILITY MONITOR REPORT
FOR

eWLB Package

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 Package Reliability Monitor. The specific assemblies included in this package monitor are:

ASSY SITE	PINS PACKAGE
ASE Kaoshiung	75 Ewlb

The calculated failure rate for this assembly is:

FAILURE RATE: MTTF (YRS): 36819 FITS: 3.1

The parameters used to calculate this failure rate are as follows:

Cf: 60% Ea: 0.7 Tu: 25 °C

The reliability data follows. At the start of this data is a description of the assembly vehicle used to generate this reliability data. The next section is the detailed reliability data for each stress. The reliability data section includes the latest data available. This report covers data between 10/1/2018 and 12/31/2018.

Assembly Information:

Package Type: Ewlb
Date Code Range: 1739 to 1806

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	1739	MAX24025IMP+	135°C	1000 HRS	32	0	
HIGH TEMP OP LIFE	1739	MAX24025IMP+	135°C	1000 HRS	31	0	
HIGH TEMP OP LIFE	1739	MAX24025IMP+	135°C	1000 HRS	32	0	
HIGH TEMP OP LIFE	1803	MAX24025IMP+	125°C	1000 HRS	32	0	
HIGH TEMP OP LIFE	1803	MAX24025IMP+	125°C	1000 HRS	31	0	
HIGH TEMP OP LIFE	1806	MAX24025IMP+	125°C	1000 HRS	32	0	
Total:						0	

PACKAGE TESTS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
CONVECTION REFLOW	1739	MAX24025IMP+	260C +0/-5C	3 PASS	150	0	
CONVECTION REFLOW	1739	MAX24025IMP+	260C +0/-5C	3 PASS	150	0	
CONVECTION REFLOW	1739	MAX24025IMP+	260C +0/-5C	3 PASS	150	0	
CONVECTION REFLOW	1803	MAX24025IMP+	260C +0/-5C	PASS	150	0	
CONVECTION REFLOW	1806	MAX24025IMP+	260C +0/-5C	PASS	150	0	
CONVECTION REFLOW	1806	MAX24025IMP+	260C +0/-5C	PASS	150	0	
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE		MAX24025IMP+	150°C	1000 HRS	80	0	
STORAGE LIFE	1739	MAX24025IMP+	150°C	1000 HRS	80	0	

STORAGE LIFE	1739	MAX24025IMP+	150°C	1000 HRS	80	0
STORAGE LIFE	1739	MAX24025IMP+	150°C	1500 HRS	80	0
STORAGE LIFE	1803	MAX24025IMP+	150°C	1000 HRS	80	0
STORAGE LIFE	1806	MAX24025IMP+	150°C	1000 HRS	80	0
Total:					0	0

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE, 15' RAMP, 15' DWELL	1739	MAX24025IMP+	-40C TO +125C (Condition G)	1500 CYS	80	0	
TEMP CYCLE, 15' RAMP, 15' DWELL	1739	MAX24025IMP+	-40C TO +125C (Condition G)	1500 CYS	80	0	
TEMP CYCLE, 15' RAMP, 15' DWELL	1739	MAX24025IMP+	-40C TO +125C (Condition G)	1500 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1803	MAX24025IMP+	-65C TO +150C (Condition C)	500 CYS	76	0	
TEMP CYCLE, 15' RAMP, 15' DWELL	1803	MAX24025IMP+	-40C TO +125C (Condition G)	1000 CYS	80	0	
TEMP CYCLE, 15' RAMP, 15' DWELL	1803	MAX24025IMP+	-40C TO +125C (Condition G)	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1806	MAX24025IMP+	-65C TO +150C (Condition C)	500 CYS	79	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1806	MAX24025IMP+	-65C TO +150C (Condition C)	500 CYS	80	0	
TEMP CYCLE, 15' RAMP, 15' DWELL	1806	MAX24025IMP+	-40C TO +125C (Condition G)	1000 CYS	80	0	
Total:					0	0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
BIASED MOISTURE	1803	MAX24025IMP+	85 C/85% R.H.	1000 HRS	32	0	
BIASED MOISTURE	1806	MAX24025IMP+	85 C/85% R.H.	1000 HRS	31	0	
BIASED MOISTURE	1806	MAX24025IMP+	85 C/85% R.H.	500 HRS	32	0	
Total:					0	0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
MOISTURE SOAK	1739	MAX24025IMP+	130C, 85% R.H.	96 HRS	80	0	
MOISTURE SOAK	1739	MAX24025IMP+	85C, 85% R.H.	1000 HRS	32	0	
MOISTURE SOAK	1739	MAX24025IMP+	130C, 85% R.H.	96 HRS	80	0	
MOISTURE SOAK	1739	MAX24025IMP+	85C, 85% R.H.	1000 HRS	32	0	
MOISTURE SOAK	1739	MAX24025IMP+	130C, 85% R.H.	96 HRS	80	0	
MOISTURE SOAK	1739	MAX24025IMP+	85C, 85% R.H.	1000 HRS	32	0	
MOISTURE SOAK	1803	MAX24025IMP+	130C, 85% R.H.	96 HRS	80	0	
MOISTURE SOAK	1806	MAX24025IMP+	130C, 85% R.H.	96 HRS	80	0	
Total:					0	0	

FAILURE RATE: MTTF (YRS): 36819 FITS: 3.1