

8/1/2019



**RELIABILITY MONITOR REPORT
FOR**

iButton 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	2	iButton	MPOC 2 iButton

Note: Due to the nature of the construction on this assembly, there is no operating life data collected.

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 4/1/2019 and 7/31/2019

Assembly Information:

Package Type: iButton
 Flammability: UL 94-V0
 Date Code Range: 1848 to 1916

PACKAGE TESTS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
Variable Frequency Vibration		90-1990A+F50			50	0	
Variable Frequency Vibration		90-1990A+F50			50	0	
Variable Frequency Vibration	1907	90-1921G#F50			50	0	
Variable Frequency Vibration	1907	90-1921G#F50			50	0	
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE		90-1921G#F50	150°C	1000 HRS	85	0	
STORAGE LIFE		90-1230A+B12	150°C	1000 HRS	85	0	
STORAGE LIFE		90-1230A+B12	150°C	1000 HRS	85	0	
STORAGE LIFE		90-1990A+F50	150°C	1000 HRS	85	0	
STORAGE LIFE		90-1230Y+07I	150°C	1000 HRS	80	0	
STORAGE LIFE	1848	90-19850+F30	150°C	1000 HRS	85	0	
STORAGE LIFE	1848	90-19850+F30	150°C	1000 HRS	85	0	
STORAGE LIFE	1851	90-1921G#F50	150°C	1000 HRS	85	0	
STORAGE LIFE	1904	90-1922L#F51	150°C	1000 HRS	85	0	

STORAGE LIFE	1907	90-1921G#F50	150°C	1000 HRS	80	0
STORAGE LIFE	1907	90-1921G#F50	150°C	1000 HRS	80	0
STORAGE LIFE	1907	90-1921G#F50	150°C	1000 HRS	80	0
STORAGE LIFE	1914	90-15540+07I	150°C	1000 HRS	80	0
STORAGE LIFE	1914	90-15540+07I	150°C	1000 HRS	80	0
STORAGE LIFE	1914	90-1230Y+07I	150°C	1000 HRS	80	0
STORAGE LIFE	1914	90-15560+07I	150°C	1000 HRS	80	0
STORAGE LIFE	1914	90-15560+07I	150°C	1000 HRS	80	0
STORAGE LIFE	1916	90-1990A+F50	150°C	1000 HRS	80	0
STORAGE LIFE	1916	90-1990A+F50	150°C	1000 HRS	80	0
Total:					0	0

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE, 5' RAMP, 10' DWELL		90-1921G#F50	-65C TO +150C (Condition C)	1000 CYS	85	0	
TEMP CYCLE, 5' RAMP, 10' DWELL		90-1747W+120	-65C TO +150C (Condition C)	1000 CYS	85	0	
TEMP CYCLE, 5' RAMP, 10' DWELL		87-17A48-D01	-65C TO +150C (Condition C)	1000 CYS	85	0	
TEMP CYCLE, 5' RAMP, 10' DWELL		90-1230A+B12	-65C TO +150C (Condition C)	1000 CYS	85	0	
TEMP CYCLE, 5' RAMP, 10' DWELL		90-1230A+B12	-65C TO +150C (Condition C)	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL		90-1990A+F50	-40C TO +125C (Condition G)	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL		90-1230Y+07I	-65C TO +150C (Condition C)	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1848	90-19850+F30	-40C TO +125C (Condition G)	1000 CYS	85	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1848	90-19850+F30	-65C TO +150C (Condition C)	1000 CYS	85	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1851	90-1921G#F50	-65C TO +150C (Condition C)	1000 CYS	85	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1907	90-1921G#F50	-65C TO +150C (Condition C)	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1907	90-1921G#F50	-65C TO +150C (Condition C)	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1907	90-1921G#F50	-65C TO +150C (Condition C)	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1914	90-15540+07I	-65C TO +150C (Condition C)	1000 CYS	80	0	

TEMP CYCLE, 5' RAMP, 10' DWELL	1914	90- 15540+07I	-65C TO +150C (Condition C)	1000 CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1914	90- 1230Y+07I	-65C TO +150C (Condition C)	1000 CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1914	90- 15560+07I	-65C TO +150C (Condition C)	1000 CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1914	90- 15560+07I	-65C TO +150C (Condition C)	1000 CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1916	90- 1990A+F50	-65C TO +150C (Condition C)	1000 CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1916	90- 1990A+F50	-65C TO +150C (Condition C)	1000 CYS	80	0
Total:						0

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
BIASED MOISTURE		90- 1990A+F50	85 C/85% R.H.	1000 HRS	85	0	
BIASED MOISTURE		90- 1990A+F50	85 C/85% R.H.	1000 HRS	85	0	
BIASED MOISTURE		90- 1230Y+07I	85 C/85% R.H.	1000 HRS	80	0	
BIASED MOISTURE	1848	90- 19850+F30	85 C/85% R.H.	1000 HRS	85	0	
BIASED MOISTURE	1848	90- 19850+F30	85 C/85% R.H.	1000 HRS	85	0	
BIASED MOISTURE	1904	90- 1922L#F51	85 C/85% R.H.	1000 HRS	85	0	
BIASED MOISTURE	1907	90- 1921G#F50	85 C/85% R.H.	1000 HRS	80	0	
BIASED MOISTURE	1907	90- 1921G#F50	85 C/85% R.H.	1000 HRS	80	0	
BIASED MOISTURE	1907	90- 1921G#F50	85 C/85% R.H.	1000 HRS	80	0	
BIASED MOISTURE	1914	90- 1230Y+07I	85 C/85% R.H.	1000 HRS	80	0	
BIASED MOISTURE	1916	90- 1990A+F50	85 C/85% R.H.	1000 HRS	80	0	
BIASED MOISTURE	1916	90- 1990A+F50	85 C/85% R.H.	1000 HRS	80	0	
Total:						0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
MOISTURE SOAK		90- 1921G#F50	130C, 85% R.H.	500 HRS	85	0	
MOISTURE SOAK		90- 1921G#F50	130C, 85% R.H.	1000 HRS	85	0	
MOISTURE SOAK		90- 1747W+120	130C, 85% R.H.	500 HRS	85	0	
MOISTURE SOAK		90- 1747W+120	130C, 85% R.H.	1000 HRS	85	0	

MOISTURE SOAK	87-17A48- D01	130C, 85% R.H.	500	HRS	85	0
MOISTURE SOAK	90- 1230A+B12	130C, 85% R.H.	500	HRS	85	0
MOISTURE SOAK	90- 1230A+B12	130C, 85% R.H.	1000	HRS	85	0
MOISTURE SOAK	90- 1230A+B12	130C, 85% R.H.	500	HRS	85	0
MOISTURE SOAK	90- 1230A+B12	130C, 85% R.H.	1000	HRS	85	0
MOISTURE SOAK	1851 90- 1921G#F50	130C, 85% R.H.	1000	HRS	83	0
					Total:	0