

4/23/2015



RELIABILITY MONITOR REPORT
FOR

LGA 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 Chung-Li	28 LGA (Pb-Free)

The calculated failure rate for this assembly is:

FAILURE RATE: MTTF (YRS): 46314 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. 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 4/1/2014 and 3/31/2015.

Assembly Information:

Package Type: LGA (Pb-Free)
Date Code Range: 1420 to 1420

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	1420	MAX17515ALI+	135°C	1000 HRS	79	0	
HIGH TEMP OP LIFE	1420	MAX17515ALI+	135°C	1000 HRS	80	0	
HIGH TEMP OP LIFE	1420	MAX17515ALI+	135°C	1000 HRS	80	0	
Total:						0	

PRECONDITIONING LEVEL 1

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
CONVECTION REFLOW	1420	MAX17515ALI+	260C +/-5C	250 PASS	1000	0	
CONVECTION REFLOW	1420	MAX17515ALI+	260C +/-5C	250 PASS	225	0	
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	1420	MAX17515ALI+	150°C	1000 HRS	80	0	
STORAGE LIFE	1420	MAX17515ALI+	150°C	1000 HRS	80	0	
STORAGE LIFE	1420	MAX17515ALI+	150°C	1000 HRS	80	0	
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE, 5' RAMP, 10' DWELL	1420	MAX17515ALI+	-65C TO +150C (Condition C)	1000 CYS	80	1	
TEMP CYCLE, 5' RAMP, 10' DWELL	1420	MAX17515ALI+	-65C TO +150C (Condition C)	1000 CYS	80	0	

TEMP CYCLE, 5' RAMP, 10' DWELL	1420	MAX17515ALI+	-65C TO +150C (Condition C)	1000 CYS	79	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1420	MAX17515ALI+	-65C TO +150C (Condition C)	1000 CYS	80	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1420	MAX17515ALI+	-65C TO +150C (Condition C)	1000 CYS	79	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1420	MAX17515ALI+	-65C TO +150C (Condition C)	1000 CYS	80	0
Total:						1

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
MOISTURE SOAK	1420	MAX17515ALI+	130C, 85% R.H.	1000 HRS	80	0	
MOISTURE SOAK	1420	MAX17515ALI+	130C, 85% R.H.	1000 HRS	80	0	
MOISTURE SOAK	1420	MAX17515ALI+	85 C/85% R.H.	1000 HRS	80	0	
Total:						0	

FAILURE RATE: MTTF (YRS): 46314 FITS: 2.5