

4/17/2013



RELIABILITY MONITOR REPORT
FOR

QFP 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	ASSY SITE	PINS	PACKAGE
ASE KAOHSIUNG	48	LQFP (Pb-Free)	ASE KAOHSIUNG	64	TQFP-EP (Pb-Free)
ATK (Amkor, K)	48	TQFP-EP (Pb-Free)			

The calculated failure rate for this assembly is:

FAILURE RATE: MTTF (YRS): 25385 FITS: 4.5

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 4/1/2012 and 3/31/2013.

Assembly Information:

Package Type: LQFP (Pb-Free)
Date Code Range: 1211 to 1220

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	1211	MAX4986ECM+	135°C	500 HRS	77	0	
HIGH TEMP OP LIFE	1220	MAX4968AECM+	135°C	500 HRS	77	0	
HIGH TEMP OP LIFE	1220	MAX4968AECM+	135°C	500 HRS	76	0	
Total:						0	

Assembly Information:

Package Type: TQFP-EP (Pb-Free)
Date Code Range: 1212 to 1302

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	1216	MAX3815CCM+	135°C	500 HRS	32	0	
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	1302	MAX9264GCB/V+	150°C	500 HRS	50	0	
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE, 5' RAMP, 10' DWELL	1212	MAX9266GCM/V+	-65C TO 150C	500 CYS	80	0	

TEMP CYCLE, 5' RAMP, 10' DWELL	1242	MAX9266GCM/V+	-65C TO 150C	500	CYS	80	0
						Total:	0

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
BIASED MOISTURE	1212	MAX9266GCM/V+	130C, 85% R.H.	100	HRS	45	0
BIASED MOISTURE	1242	MAX9266GCM/V+	130C, 85% R.H.	100	HRS	35	0
						Total:	0

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
MOISTURE SOAK	1212	MAX9266GCM/V+	130C, 85% R.H.	100	HRS	80	0
MOISTURE SOAK	1242	MAX9266GCM/V+	130C, 85% R.H.	100	HRS	80	0
MOISTURE SOAK	1302	MAX9264GCB/V+	130C, 85% R.H.	100	HRS	80	0
MOISTURE SOAK	1302	MAX9264GCB/V+	130C, 85% R.H.	100	HRS	80	0
						Total:	0

FAILURE RATE: MTTF (YRS): 25385 FITS: 4.5