

4/16/2014



RELIABILITY MONITOR REPORT
FOR

TSOC 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
Cirtek	6 TSOC (Pb-Free)

The calculated failure rate for this assembly is:

FAILURE RATE: MTTF (YRS): 18450 FITS: 6.2

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 4/1/2013 and 3/31/2014.

Assembly Information:

Package Type: TSOC (Pb-Free)

Date Code Range: 1218 to 1344

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	1243	DS28E05	125C, 3.6 VOLTS	192 HRS	80	0	
HIGH TEMP OP LIFE	1302	DS28E35	125C, 3.6 VOLTS	192 HRS	79	0	
HIGH TEMP OP LIFE	1303	DS2431	125C, 5.25 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	1305	DS28C22	125C, 3.6 VOLTS	192 HRS	79	0	
HIGH TEMP OP LIFE	1319	DS2465	125C, 3.6 VOLTS	192 HRS	80	0	
HIGH TEMP OP LIFE	1344	DS28E35	125C, 3.6 VOLTS	240 HRS	79	0	
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	1303	DS2431	150°C	1000 HRS	50	0	
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE, 5' RAMP, 10' DWELL	1303	DS2431	-65C TO 150C	500 CYS	77	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1306	DS2431	-55C TO 125C	1000 CYS	220	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1306	DS2431	-55C TO 125C	1000 CYS	220	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1306	DS2431	-55C TO 125C	1000 CYS	220	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1306	DS2431	-55C TO 125C	1000 CYS	220	0	

TEMP CYCLE, 5' RAMP, 10' DWELL	1306	DS2431	-55C TO 125C	1000 CYS	220	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1306	DS2431	-55C TO 125C	500 CYS	220	0
TEMP CYCLE, 5' RAMP, 10' DWELL	1306	DS2431	-55C TO 125C	1000 CYS	220	0
Total:						0

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HAST	1303	DS2431	130C, 85%R.H., 5.25V	96	HRS	77	0
Total:						0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HAST, NO BIAS	1303	DS2431	130C, 85% R.H.	96	HRS	77	0
Total:						0	

W/E ENDURANCE AND DATA RET'N

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	1218	DS28E25	150°C	1000	HRS	77	0
WRITE CYCLE STRESS (KCYS)	1218	DS28E25	85 C, 4.5 VOLTS	100	KCYS	77	0
STORAGE LIFE	1246	DS28E25	150°C	1000	HRS	196	0
WRITE CYCLE STRESS (KCYS)	1246	DS28E25	85 C, 4.5 VOLTS	100	KCYS	200	0
Total:						0	

FAILURE RATE: MTTF (YRS): 18450 FITS: 6.2