

4/16/2014



RELIABILITY MONITOR REPORT
FOR

PDIP 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		
ATP	24	PDIP (Pb-Free)	Cirtek	24 PDIP (Pb-Free)
Cirtek	28	PDIP (Pb-Free)		

The calculated failure rate for this assembly is:

FAILURE RATE: MTTF (YRS): 65576 FITS: 1.7

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: PDIP (Pb-Free)
Date Code Range: 1213 to 1343

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	1213	MAX191BENG+	135°C	500 HRS	80	0	
HIGH TEMP OP LIFE	1322	MAX1480AEPI+	135°C	1000 HRS	80	0	
HIGH TEMP OP LIFE	1322	MAX1480AEPI+	135°C	1000 HRS	40	0	
HIGH TEMP OP LIFE	1322	MAX1480AEPI+	135°C	1000 HRS	80	0	
HIGH TEMP OP LIFE	1343	MAX1480BEPI+	135°C	1000 HRS	40	0	
HIGH TEMP OP LIFE	1343	MAX1480AEPI+	135°C	192 HRS	40	0	
HIGH TEMP OP LIFE	1343	MAX1480BEPI+	135°C	1000 CYS	200	0	
HIGH TEMP OP LIFE	1343	MAX1480BEPI+	135°C	1000 HRS	40	0	
HIGH TEMP OP LIFE	1343	MAX1480AEPI+	135°C	192 HRS	40	0	
HIGH TEMP OP LIFE	1343	MAX1480BEPI+	135°C	1000 CYS	199	0	
HIGH TEMP OP LIFE	1343	MAX1480BEPI+	135°C	1000 HRS	40	0	
HIGH TEMP OP LIFE	1343	MAX1480AEPI+	135°C	192 HRS	40	0	
HIGH TEMP OP LIFE	1343	MAX1480BEPI+	135°C	1000 CYS	200	0	
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	1322	MAX1480AEPI+	150°C	1000 HRS	80	0	
STORAGE LIFE	1322	MAX1480AEPI+	150°C	1000 HRS	80	0	
STORAGE LIFE	1322	MAX1480AEPI+	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	1309	MAX1490AEPG+	-65C TO 150C	500 CYS	250	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1309	MAX1480BEPI+	-65C TO 150C	1000 CYS	250	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1309	MAX1480BCPI+	-65C TO 150C	500 CYS	250	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1309	MAX1480BCPI+	-65C TO 150C	335 CYS	250	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1310	MAX1480BEPI+	-65C TO 150C	1000 CYS	250	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1310	MAX1480BCPI+	-65C TO 150C	1000 CYS	250	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1322	MAX1480AEPI+	-65C TO 150C	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1322	MAX1480AEPI+	-65C TO 150C	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1322	MAX1480AEPI+	-65C TO 150C	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1343	MAX1480BEPI+	-65C TO 150C	500 CYS	200	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1343	MAX1480BEPI+	-65C TO 150C	500 CYS	200	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1343	MAX1480BEPI+	-65C TO 150C	500 CYS	200	0	

Total: **0**

FAILURE RATE: MTTF (YRS): 65576 FITS: 1.7