

**10/23/2014**



**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 (Amkor, PI)	24	PDIP (Pb-Free)	Cirtek	28 PDIP-HYB (Pb-Free)

The calculated failure rate for this assembly is:

**FAILURE RATE: MTTF (YRS): 114155 FITS: 1.0**

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 10/1/2013 and 9/30/2014.

**Assembly Information:**

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

**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	
<b>Total:</b>						<b>0</b>	

**Assembly Information:**

Package Type: PDIP-HYB (Pb-Free)  
Date Code Range: 1322 to 1343

**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE		MAX1480AEPI+	135°C	500 HRS	198	0	
HIGH TEMP OP LIFE		MAX1480AEPI+	135°C	500 HRS	198	0	
HIGH TEMP OP LIFE		MAX1480AEPI+	135°C	500 HRS	200	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	MAX1480BEPI+	135°C	1000 HRS	40	0	
HIGH TEMP OP LIFE	1343	MAX1480BEPI+	135°C	1000 HRS	40	0	
<b>Total:</b>						<b>0</b>	

**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
<b>Total:</b>					<b>0</b>	<b>0</b>

**TEMPERATURE CYCLE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE, 5' RAMP, 10' DWELL		MAX1480AEPI+	-65C TO +150C (Condition C)	100 CYS	100	1	
TEMP CYCLE, 5' RAMP, 10' DWELL		MAX1480AEPI+	-65C TO +150C (Condition C)	100 CYS	100	0	
TEMP CYCLE, 5' RAMP, 10' DWELL		MAX1480AEPI+	-65C TO +150C (Condition C)	100 CYS	100	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1343	MAX1480BEPI+	-65C TO +150C (Condition C)	1000 CYS	200	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1343	MAX1480BEPI+	-65C TO +150C (Condition C)	1000 CYS	200	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1343	MAX1480BEPI+	-65C TO +150C (Condition C)	1000 CYS	200	0	
<b>Total:</b>						<b>1</b>	

**FAILURE RATE: MTTF (YRS): 114155 FITS: 1.0**