

10/27/2017



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)	8	PDIP (Pb-Free)	ATP (Amkor, PI)	16 PDIP (Pb-Free)
ATP (Amkor, PI)	20	PDIP (Pb-Free)	Cirtek	PDIP (Pb-Free)
Cirtek	8	PDIP (Pb-Free)	Cirtek	16 PDIP (Pb-Free)
Cirtek	28	PDIP (Pb-Free)		

The calculated failure rate for this assembly is:

FAILURE RATE: MTTF (YRS): 196107 FITS: 0.6

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 7/1/2017 and 9/30/2017.

Assembly Information:

Package Type: PDIP (Pb-Free)
Date Code Range: 1528 to 1703

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	1528	MAX1480AEPI+	135°C	1000 HRS	80	0	
HIGH TEMP OP LIFE	1528	MAX1480AEPI+	135°C	1000 HRS	80	0	
HIGH TEMP OP LIFE	1528	MAX1480BEPI+	135°C	1000 HRS	80	0	
HIGH TEMP OP LIFE	1528	MAX1480BEPI+	135°C	1000 HRS	80	0	
HIGH TEMP OP LIFE	1544	MAX1480AEPI+	135°C	1000 HRS	80	0	
HIGH TEMP OP LIFE	1544	MAX1480BEPI+	135°C	1000 HRS	80	0	
HIGH TEMP OP LIFE	1623	MAX186CEPP+	135°C	1000 HRS	79	0	
HIGH TEMP OP LIFE	1623	MAX186CEPP+	135°C	1000 HRS	53	0	
HIGH TEMP OP LIFE	1643	MAX232EEPE+	135°C	1000 HRS	80	0	
HIGH TEMP OP LIFE	1643	DG419LDJ+	135°C	1000 HRS	80	0	
HIGH TEMP OP LIFE	1703	MAX535BCPA+	135°C	1000 HRS	80	0	
HIGH TEMP OP LIFE	1703	MAX535BCPA+	135°C	1000 HRS	80	0	
HIGH TEMP OP LIFE	1703	MAX535BCPA+	135°C	500 HRS	80	0	
HIGH TEMP OP LIFE	1703	MAX535BCPA+	135°C	1000 HRS	80	0	
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	1528	MAX1480AEPI+	150°C	1000 HRS	80	0	

STORAGE LIFE	1528	MAX1480AEPI+	150°C	1000 HRS	80	0
STORAGE LIFE	1528	MAX1480BEPI+	150°C	1000 HRS	80	0
STORAGE LIFE	1528	MAX1480BEPI+	150°C	1000 HRS	80	0
STORAGE LIFE	1544	MAX1480AEPI+	150°C	1000 HRS	80	0
STORAGE LIFE	1544	MAX1480BEPI+	150°C	1000 HRS	80	0
STORAGE LIFE	1652	MAX5150BCPE+	150°C	1000 HRS	80	0
STORAGE LIFE	1652	MAX5150BCPE+	150°C	500 HRS	80	0
STORAGE LIFE	1652	MAX5150BCPE+	150°C	1000 HRS	80	0
STORAGE LIFE	1652	MAX5150BCPE+	150°C	1000 HRS	80	0
STORAGE LIFE	1652	MAX5150BCPE+	150°C	500 HRS	80	0
STORAGE LIFE	1703	MAX535BCPA+	150°C	1000 HRS	80	0
STORAGE LIFE	1703	MAX535BCPA+	150°C	1000 HRS	80	0
STORAGE LIFE	1703	MAX535BCPA+	150°C	1000 HRS	80	0
STORAGE LIFE	1703	MAX535BCPA+	150°C	500 HRS	80	0
Total:						0

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE, 5' RAMP, 10' DWELL	1528	MAX1480AEPI+	-65C TO +150C (Condition C)	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1528	MAX1480AEPI+	-65C TO +150C (Condition C)	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1528	MAX1480BEPI+	-65C TO +150C (Condition C)	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1528	MAX1480BEPI+	-65C TO +150C (Condition C)	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1544	MAX1480AEPI+	-65C TO +150C (Condition C)	500 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1544	MAX1480BEPI+	-65C TO +150C (Condition C)	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1652	MAX5150BCPE+	-65C TO +150C (Condition C)	1000 CYS	20	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1652	MAX5150BCPE+	-65C TO +150C (Condition C)	1000 CYS	20	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1652	MAX5150BCPE+	-65C TO +150C (Condition C)	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1652	MAX5150BCPE+	-65C TO +150C (Condition C)	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1703	MAX535BCPA+	-65C TO +150C (Condition C)	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1703	MAX535BCPA+	-65C TO +150C (Condition C)	500 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1703	MAX535BCPA+	-65C TO +150C (Condition C)	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1703	MAX535BCPA+	-65C TO +150C (Condition C)	500 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	1703	MAX535BCPA+	-65C TO +150C (Condition C)	1000 CYS	80	0	
Total:						0	

FAILURE RATE: MTTF (YRS): 196107 FITS: 0.6