

RELIABILITY MONITOR REPORT
FOR

MQFP Package

Dallas Semiconductor

4401 South Beltwood Parkway
Dallas, TX 75244-3292

This Report was prepared by
Dallas Semiconductor Reliability Engineering

Summary:

The data in the tables that follow was generated as the result of an on-going Package Reliability Monitor. The assemblies covered by this package monitor are:

ASSY SITE	PINS	PACKAGE		
ATK (Amkor, K)	100	MQFP	ATK (Amkor, K)	80 MQFP
ATP (Amkor, PI)	100	MQFP	ATP (Amkor, PI)	44 MQFP
ATP (Amkor, PI)	80	MQFP	ATP (Amkor, PI)	100 MQFP (Pb-Free)
ATP (Amkor, PI)	44	MQFP (Pb-Free)	ATP (Amkor, PI)	80 MQFP (Pb-Free)
Carsem	80	MQFP	Stats	100 MQFP
Stats	80	MQFP		

The calculated failure rate for this assembly is:

FAILURE RATE: MTTF (YRS): 18448 FITS: 6.2

The parameters used to calculate this failure rate are as follows:

Cf: 60% Ea: 0.7 B: 0 Tu: 25 °C Vu: 5.5 Volts

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 7/1/04 and 6/30/05 .

Assembly Information:

Package Type: MQFP 14 mm
 Flammability: UL 94-V0
 Moisture Sensitivity
 (JEDEC J-STD20A) Level 4
 Date Code Range: 0440 to 0442

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0440	DS5250	125C, 5.5 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0442	DS5002	125C, 5.0 VOLTS	1000 HRS	80	0	
				Total:		0	

PRECONDITIONING LEVEL 3

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
ULTRASOUND	0442	DS5002	J-STD-020		4	0	
STORAGE LIFE	0442	DS5002	125C	24 HRS	206		
MOISTURE SOAK			30C/60% R.H.	192 HRS	206		
CONVECTION REFLOW			220C +5/-0C	3 PASS	206	0	
PRECONDITION U/S	0442	DS5002	J-STD-020		4	0	
				Total:		0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE	0442	DS5002	-55C TO 125C	1000 CYS	40	0	
				Total:		0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
BIASED MOISTURE	0442	DS5002	85/85, 5.5 VOLTS	1000 HRS	42	0	
				Total:		0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
AUTOCLAVE	0442	DS5002	121C, 2 ATM STEAM, UNBIASED	96 HRS	39	0	
				Total:		0	

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