

**RELIABILITY MONITOR REPORT
FOR**

uSOP 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		
ATP (Amkor, PI)	10	uSOP	ATP (Amkor, PI)	8 uSOP
Carsem	10	uSOP	Carsem	8 uSOP
NSEB	10	uSOP	NSEB	8 uSOP

The calculated failure rate for this assembly is:

FAILURE RATE: **MTTF (YRS): 37218** **FITS: 3.1**

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 1/1/04 and 12/31/04 .

Assembly Information:

Package Type: uSOP 3mm
 Flammability: UL 94-V0
 Moisture Sensitivity
 (JEDEC J-STD20A) Level 1
 Date Code Range: 0314 to 0424

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0401	DS4510	125C, 5.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0410	DS1090	125C, 5.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0413	DS1094L	125C, 3.6 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0416	DS3902	125C, 5.5 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0421	DS1392	125C, 5.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0421	DS1390	125C, 5.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0422	DS1393	125C, 5.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0424	DS1391	125C, 5.5 VOLTS	1000 HRS	45	0	
Total:						0	

PRECONDITIONING LEVEL 1

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0314	DS1077	125C	24 HRS	235		
MOISTURE SOAK			85 C/85% R.H.	168 HRS	235		
CONVECTION REFLOW			235C +5/-0C	3 PASS	235	0	
STORAGE LIFE	0413	DS1094L	125C	24 HRS	306		
MOISTURE SOAK			85 C/85% R.H.	168 HRS	306		
CONVECTION REFLOW			235C +5/-0C	3 PASS	306	0	
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0314	DS1077	150C	1000 HRS	77	0	
				Total:		0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE	0314	DS1077	-55C TO 125C	1000 CYS	77	0	
TEMP CYCLE	0413	DS1094L	-55C TO 125C	1000 CYS	77	0	
				Total:		0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
AUTOCLAVE	0314	DS1077	121C, 2 ATM STEAM, UNBIASED	168 HRS	69	0	
AUTOCLAVE	0413	DS1094L	121C, 2 ATM STEAM, UNBIASED	168 HRS	85	0	
				Total:		0	

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