4/20/07

RELIABILITY MONITOR REPORT
FOR

TSSOP 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	ASSY SITE	PINS	PACKAGE
ATK (Amkor, K)	14	TSSOP	ATK (Amkor, K)	16	TSSOP
ATK (Amkor, K)	20	TSSOP	ATP (Amkor, PI)	14	TSSOP
ATP (Amkor, PI)	16	TSSOP	ATP (Amkor, PI)	20	TSSOP
ATP (Amkor, PI)	24	TSSOP	ATP (Amkor, PI)	28	TSSOP
ATP (Amkor, PI)	8	TSSOP	ATP (Amkor, PI)	16	TSSOP & Bump Resistor
ATP (Amkor, PI)	8	TSSOP & Bump Resistor	ATP (Amkor, PI)	8	TSSOP & Bump Resistor (Pb-Free)
ATP (Amkor, PI)	14	TSSOP (Pb-Free)	ATP (Amkor, PI)	16	TSSOP (Pb-Free)
ATP (Amkor, PI)	20	TSSOP (Pb-Free)	ATP (Amkor, PI)	38	TSSOP (Pb-Free)
ATP (Amkor, PI)	8	TSSOP (Pb-Free)	Brilliance Semicondu	28	TSSOP
Brilliance Semicondu	32	TSSOP	Carsem	14	TSSOP
Carsem	16	TSSOP	Carsem	20	TSSOP
Carsem	24	TSSOP	Carsem	28	TSSOP
Carsem	8	TSSOP	Carsem	14	TSSOP & Bump Resistor
Carsem	16	TSSOP & Bump Resistor	Carsem	20	TSSOP & Bump Resistor
Carsem	8	TSSOP & Bump Resistor	Carsem	16	TSSOP & Bump Resistor (Pb-Free)
Carsem	14	TSSOP (Pb-Free)	Carsem	16	TSSOP (Pb-Free)
Carsem	20	TSSOP (Pb-Free)	Carsem	24	TSSOP (Pb-Free)
Carsem	28	TSSOP (Pb-Free)	OSEP	14	TSSOP
OSEP	16	TSSOP	OSEP	20	TSSOP
OSEP	24	TSSOP	OSEP	28	TSSOP
OSEP	14	TSSOP (Pb-Free)	OSEP	16	TSSOP (Pb-Free)
OSEP	20	TSSOP (Pb-Free)	OSEP	24	TSSOP (Pb-Free)
OSEP	28	TSSOP (Pb-Free)	UTL (NSEB) UTAC	14	TSSOP
UTL (NSEB) UTAC	16	TSSOP	UTL (NSEB) UTAC	20	TSSOP
UTL (NSEB) UTAC	16	TSSOP & Bump Resistor	UTL (NSEB) UTAC	16	TSSOP & Bump Resistor (Pb-Free)
UTL (NSEB) UTAC	14	TSSOP (Pb-Free)	UTL (NSEB) UTAC	16	TSSOP (Pb-Free)
UTL (NSEB) UTAC	20	TSSOP (Pb-Free)	UTL (NSEB) UTAC	24	TSSOP (Pb-Free)
UTL (NSEB) UTAC	28	TSSOP (Pb-Free)			

The calculated failure rate for this assembly is:

FAILURE RATE: MTTF (YRS): 55814 FITS: 2.0

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

Cf: 60% **Ea: 0.7** **Tu: 25 °C**

The reliability data follows. A 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 4/1/2006 and 3/31/2007 .

Assembly Information:

Package Type:	TSSOP 4.4x0.9
Flammability:	UL 94-V0
Moisture Sensitivity (JEDEC J-STD20A)	Level 1
Date Code Range:	0601 to 0609

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO

HIGH TEMP OP LIFE	0601	DS3908	125C, 5.5 VOLTS	1000	HRS	77	0	
HIGH VOLTAGE LIFE	0609	DS1267	125C, 5.5 V, -4.0V	1000	HRS	77	0	
					Total:		**0**	

PRECONDITIONING LEVEL 1

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT		QUANTITY	FAILS	FA NO
ULTRASOUND	0609	DS1267	J-STD-020			4	0	
STORAGE LIFE	0609	DS1267	125C	24	HRS	325		
MOISTURE SOAK			85 C/85% R.H.	168	HRS	325		
CONVECTION REFLOW			235C +5/-0C	3	PASS	325	0	
PRECONDITION U/S	0609	DS1267	J-STD-020			4	0	
					Total:		**0**	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT		QUANTITY	FAILS	FA NO
STORAGE LIFE	0609	DS1267	150C	1000	HRS	77	0	
					Total:		**0**	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT		QUANTITY	FAILS	FA NO
TEMP CYCLE	0609	DS1267	-55C TO 125C	1000	CYS	45	0	
					Total:		**0**	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT		QUANTITY	FAILS	FA NO
BIASED MOISTURE	0609	DS1267	85/85, 5.5 VOLTS	1000	HRS	77	0	
					Total:		**0**	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT		QUANTITY	FAILS	FA NO
AUTOCLAVE	0609	DS1267	121C, 2 ATM STEAM, UNBIASED	168	HRS	45	0	
					Total:		**0**	

Assembly Information:

Package Type:	TSSOP (Pb-Free) 4.4x0.9
Flammability:	UL 94-V0
Moisture Sensitivity (JEDEC J-STD20A)	Level 1
Date Code Range:	0612 to 0640

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT		QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0612	DS3901A	125C, 5.5 VOLTS	1000	HRS	77	0	
HIGH TEMP OP LIFE	0623	DS2714	125C, 5.5 VOLTS	1000	HRS	45	0	
HIGH TEMP OP LIFE	0626	DS2762	125C, 5.5 VOLTS	1000	HRS	77	0	
HIGH TEMP OP LIFE	0626	DS1863	125C, 5.5 VOLTS	1000	HRS	77	0	

HIGH TEMP OP LIFE	0640	DS2756	125C, 5.5 VOLTS	1000	HRS	45	0
					Total:		**0**

FAILURE RATE: MTTF (YRS): 55814 FITS: 2.0