

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 specific assemblies included in this package monitor are:

ASSY SITE	PINS	PACKAGE		
ATP (Amkor, PI)	8	TSSOP (Pb-Free)	Carsem	16 TSSOP (Pb-Free)
UTL (NSEB) UTAC	20	TSSOP (Pb-Free)		

The calculated failure rate for this assembly is:

**FAILURE RATE: MTTF (YRS): 23383 FITS: 4.9**

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 and

---

**Assembly Information:**

Package Type: TSSOP (Pb-Free)  
Flammability: UL 94-V0  
Date Code Range: 0626 to 0715

---

**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
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	
HIGH TEMP OP LIFE	0714	DS2784	125C, 5.5 V (PSA) & 15.0 V (PSB)	1000 HRS	77	0	
<b>Total:</b>						<b>0</b>	

---

**STORAGE LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0715	DS2782	150C	1000 HRS	77	0	
<b>Total:</b>						<b>0</b>	

---

**TEMPERATURE CYCLE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE	0715	DS2782	-55C TO 125C	1000 CYS	77	0	
<b>Total:</b>						<b>0</b>	

---

**TEMPERATURE HUMIDITY BIAS**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
BIASED MOISTURE	0715	DS2782	85/85, 5.5 VOLTS	1000 HRS	77	0	
<b>Total:</b>						<b>0</b>	

---

**WE ENDURANCE AND DATA RET'N**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
-------------	-----------	--------------	-----------	-----------	----------	-------	-------

WRITE CYCLE STRESS (KCYS)	0626	DS1863	85 C, 5.5 VOLTS	50	KCYS	77	0
STORAGE LIFE			150C	1000	HRS	77	0
STORAGE LIFE	0640	DS2756	150C	1000	HRS	77	0
WRITE CYCLE STRESS (KCYS)			70 C, 5.5 VOLTS	50	KCYS	77	0
STORAGE LIFE	0714	DS2784	150C	1000	HRS	77	0
WRITE CYCLE STRESS (KCYS)			50 C, 5.5 V (PSA) & 15.0 V (PSB)	50	KCYS	77	0
<b>Total:</b>							<b>0</b>

**FAILURE RATE:    MTTF (YRS): 23383    FITS: 4.9**