

RELIABILITY MONITOR REPORT  
FOR

**TQFP Package**

**Dallas Semiconductor**

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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)	144	TQFP	ATK (Amkor, K)	32 TQFP
ATK (Amkor, K)	44	TQFP	ATK (Amkor, K)	48 TQFP
ATK (Amkor, K)	52	TQFP	ATK (Amkor, K)	64 TQFP
ATK (Amkor, K)	144	TQFP (Pb-Free)	ATK (Amkor, K)	32 TQFP (Pb-Free)
ATK (Amkor, K)	44	TQFP (Pb-Free)	ATK (Amkor, K)	48 TQFP (Pb-Free)
ATK (Amkor, K)	144	TQFP Exposed Pad	ATP (Amkor, PI)	32 TQFP
ATP (Amkor, PI)	44	TQFP	ATP (Amkor, PI)	48 TQFP
ATP (Amkor, PI)	52	TQFP	OSET	32 TQFP
OSET	48	TQFP	SCC (StatsChipPac C)	44 TQFP
SCC (StatsChipPac C)	44	TQFP (Pb-Free)	SCS (StatsChipPac Si)	44 TQFP
SCS (StatsChipPac Si)	48	TQFP		

The calculated failure rate for this assembly is:

**FAILURE RATE: MTTF (YRS): 9048 FITS: 12.6**

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 7/1/2006 and 6/30/2007.

**Assembly Information:**

Package Type: TQFP (Pb-Free) 10x10x1.0  
 Flammability: UL 94-V0  
 Moisture Sensitivity (JEDEC J-STD20A) Level 3  
 Date Code Range: 0631 to 0643

**PACKAGE TESTS**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
SOLDERABILITY (Sn/Pb)	0631	DS80C320	JESD22-B102, COND C		15	0	
SOLDERABILITY (Sn/Pb)	0643	DS80C320	JESD22-B102, COND C		20	0	
<b>Total:</b>						<b>0</b>	

**Assembly Information:**

Package Type: TQFP (Pb-Free) 7x7x1  
 Flammability: UL 94-V0  
 Moisture Sensitivity (JEDEC J-STD20A) Level 3  
 Date Code Range: 0642 to 0642

**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0642	DS3988	125C, 5.5 VOLTS	1000 HRS	77	0	

**FAILURE RATE: MTTF (YRS): 9048 FITS: 12.6**

**Total: 0**