7. Package Related Reliability Test Data

Temperature Cycle Test (TCT)

1. Test Condition

Condition: T = -65°C / 15min , +150 °C/15min, Non-bias

Duration: 500 cycles

2. DRAM Products

Package Type	Period	Total No of Samples	No. of Fails	Reject Information
BGA	Q1,13	77	0	
	Q2,13	77	0	
	Q3,13	77	0	
	Q4,13	77	0	

3. Non-Volatile Memory Products

Package Type	Period	Total No of Samples	No. of Fails	Reject Information
SOP	Q1,13	77	0	
	Q2,13	77	0	
	Q3,13	77	0	
	Q4,13	77	0	
TSOP	Q1,13	77	0	
	Q2,13	77	0	
	Q3,13	77	0	
	Q4,13	77	0	

Pressure Cooker Test (PCT) / Un-biased Highly Accelerated Stress Test (uHAST)

1. Test Condition

Condition: T = 121°C, RH = 100%, Non-bias for PCT

                     T = 130°C, RH = 85%, Non-bias for uHAST

Duration: 96 hrs

2. DRAM Products

Package Type	Period	Total No of Samples	No. of Fails	Reject Information
BGA	Q1,13	77	0	
	Q2,13	77	0	
	Q3,13	77	0	
	Q4,13	77	0	

3. Non-Volatile Memory Products

Package Type	Period	Total No of Samples	No. of Fails	Reject Information
SOP	Q1,13	77	0	
	Q2,13	77	0	
	Q3,13	77	0	
	Q4,13	77	0	
TSOP	Q1,13	77	0	
	Q2,13	77	0	
	Q3,13	77	0	
	Q4,13	77	0	

Highly Accelerated Stress Test (HAST)

1. Test Condition

Condition: T = 130°C for TSOP/SOP

                    T = 121°C for BGA

                    RH = 85%.

                    Bias =Vddmax

Duration: 168 hrs

2. DRAM Products

Package Type	Period	Total No of Samples	No. of Fails	Reject Information
BGA	Q1,13	77	0	
	Q2,13	77	0	
	Q3,13	77	0	
	Q4,13	77	0	

3. Non-Volatile Memory Products

Package Type	Period	Total No of Samples	No. of Fails	Reject Information
SOP	Q1,13	77	0	
	Q2,13	77	0	
	Q3,13	77	0	
	Q4,13	77	0	
TSOP	Q1,13	77	0	
	Q2,13	77	0	
	Q3,13	77	0	
	Q4,13	77	0	