# Test Qualification Plan

1. SCM Correlation Data Gathering
   - Loop 4 bin1 units x30
   - Run 100 bin1 units on handler
   - Serialize and test 10 bin1 units
   - Serialize and test 5 reject units
2. Ship correlation package from SCM to SCC
3. SCC Correlation Data Gathering
   - Loop 4 bin1 units x30
   - Run 100 bin1 units on handler
   - Test 10 already serialized bin1
   - Test 5 already serialized rejects
4. SCM/SCC send data to ADGT for Data Crunching and Analysis
5. CorL8 Analysis of x30 loop /100 units handler data
   - X30 loop must pass Mean Shift, Sigma Spread and CPK criteria
   - 100 Bin1 Correlation units must pass Mean Shift, Sigma Spread and CPK criteria
   - 10 serialized units must pass bin1 both in SCC and in SCM
   - 5 serialized rejects must fail the same parameter for both SCC and SCM
6. Correlation Data Approval
   - For TRB movement to Available with Condition
7. Validation lot run handled by SCC

Note: CorL8 is ADI data analysis tool.

| Reject Correlation | | |
|---|---|---|
| **Unit** | SCM | SCC |
| **1** | TnumX: XXXXX | TnumX: XXXXX |
| **...** | TnumX: XXXXX | TnumX: XXXXX |
| **5** | TnumX: XXXXX | TnumX: XXXXX |

| Bin1 Correlation | | |
|---|---|---|
| **Unit** | SCM | SCC |
| **1** | Pass | Pass |
| **...** | Pass | Pass |
| **10** | Pass | Pass |

| Correlation Test Criteria(TST00137 ) | |
|---|---|
| **% Mean Shift Criteria** | ( ( SCM_mean - SCC_Mean ) / ( Upper_Limit - Lower_Limit ) ) x 100 < 5 |
| **Sigma Spread Criteria** | ( SCC_Sigma / SCM_Sigma ) < 1.300000 |
| **Cpk Criteria** | If CPK to the test limits is >10, then test given automatically PASS |

# Test Qualification estimated Timeline

| Devices | Oct, 2013 to Nov, 2013 | Dec,2013 to Apr, 2014 | May, 2014 |
|---|---|---|---|
| SCM Correlation Data Gathering&Shipment | | | |
| SCC Correlation Data Gathering | | | |
| Data Review and Approved by ADGT | | | |
| Validation Run/TRB Closure | | | |

PLANNED
ACTUAL/ADJUSTED

# Reliability Qualification Plan for LFCSP Package at STATS ChipPAC China (SCC)

| QUALIFICATION PLAN | | | |
|---|---|---|---|
| Test | Conditions | Sample Size | Expected Completion Date |
| Highly Accelerated Stress Test (HAST)* | JEDEC *JESD22-A110* | **3 x 77** | April 2014 |
| Temperature Cycle (TC)* | JEDEC *JESD22-A104* | **3 x 77** | April 2014 |
| Autoclave (AC)* | JEDEC *JESD22-A102* | **3 x 77** | April 2014 |
| Solder Heat Resistance (SHR)* | JEDEC/IPC *J-STD-020* | **3 x 11** | April 2014 |
| High Temperature Storage Life (HTSL) | JEDEC *JESD22-A103* | **1 x 77** | April 2014 |
| Field Induced Charged Device Model (FICDM) | JEDEC *JESD22-C101* | **3/Voltage** | April 2014 |

*Preconditioned per JEDEC/IPC J-STD-020