## Qualification Results Summary for Automotive Grade 1 Dual-Die in LQFP\_EP at UT3

| QUALIFICATION RESULTS  |                     |                |                |
|--|---------------------|----------------|----------------|
| TEST   | Specification       | Sample<br>Size | RESULT         |
| Temperature Cycle (TC)*  | JEDEC JESD22-A104   | 3 x 77         | PASS           |
| Solder Heat Resistance (SHR)*                                    | JEDEC/IPC J-STD-020 | 3 x 11         | PASS           |
| Highly Accelerated Stress Test<br>(HAST)*                        | JEDEC JESD22-A110   | 3 x 77         | PASS           |
| Unbiased Highly Accelerated Stress<br>Test (UHAST)*              | JEDEC JESD22-A118   | 3 x 77         | PASS           |
| High Temperature Storage (HTS)                                   | JEDEC JESD22-A103   | 3 x 77         | PASS           |
| High Temperature Operating Life<br>(HTOL)                        | JEDEC JESD22-A108   | 3 x 77         | PASS           |
| Latch-Up   | JEDEC JESD78        | 6/level        | PASS<br>±200mA |
| Electrostatic Discharge<br>Human Body Model                      | ESDA/JEDEC JS-001   | 3/voltage      | PASS<br>±1000V |
| Electrostatic Discharge<br>Field-Induced Charged Device<br>Model | JEDEC JS-002        | 3/voltage      | PASS ±750V     |

\* These samples were subjected to preconditioning (per J-STD-020 Level 3) prior to the start of the stress test. Level 3 preconditioning consists of the following: 1. Bake – 24 hours at 125°C; 2. Soak – unbiased soak for 192 hours at 30°C, 60%RH; 3. Reflow – three passes through a reflow oven with a peak temperature of 260°C. TC samples were subjected to wire-pull test after 500 cycles within specification limits.