

### Qualification Results Summary, Automotive Grade 1 at ADLK Fab

| QUALIFICATION RESULTS   |                            |                  |                       |
|---|----------------------------|------------------|-----------------------|
| TEST  | SPECIFICATION              | SAMPLE SIZE      | RESULTS               |
| Autoclave (AC) <sup>1,2</sup>   | JEDEC <i>JESD22-A102</i>   | <b>1*77</b>      | <b>Pass</b>           |
| Highly Accelerated Stress Test (HAST) <sup>1,2</sup>                              | JEDEC <i>JESD22-A110</i>   | <b>1*77</b>      | <b>Pass</b>           |
| Temperature Cycle (TC) <sup>1,2</sup>   | JEDEC <i>JESD22-A104</i>   | <b>1*77</b>      | <b>Pass</b>           |
| Solder Heat Resistance (SHR) <sup>1,2</sup>                                       | JEDEC/IPC <i>J-STD-020</i> | <b>1*30</b>      | <b>Pass</b>           |
| High Temperature Storage Life (HTSL) <sup>2</sup>                                 | JEDEC <i>JESD22-A103</i>   | <b>1*45</b>      | <b>Pass</b>           |
| High Temperature Operating Life (HTOL) <sup>1,2</sup>                             | JEDEC <i>JESD22-A108</i>   | <b>1*77</b>      | <b>Pass</b>           |
| Early Life Failure (ELF) <sup>2</sup>   | AEC <i>AEC-Q100-008</i>    | <b>3*800</b>     | <b>Pass</b>           |
| Electrostatic Discharge <sup>2</sup><br><i>Field-Induced Charged Device Model</i> | JEDEC <i>JESD22-C101</i>   | <b>3/voltage</b> | <b>Pass 1250V</b>     |
| Electrostatic Discharge <sup>2</sup><br><i>Human Body Model</i>                   | ESDA/JEDEC <i>JS-001</i>   | <b>3/voltage</b> | <b>Pass 3500V</b>     |
| Electrostatic Discharge <sup>2</sup><br><i>Machine Model</i>                      | JEDEC <i>JESD22-A115</i>   | <b>3/voltage</b> | <b>Pass 100V</b>      |
| Latch Up <sup>2</sup>   | JEDEC <i>JESD78</i>        | <b>3/current</b> | <b>Pass<br/>200mA</b> |

<sup>1</sup> These samples were subjected to preconditioning (per J-STD-020 Level 1) 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 168 hours at 85°C, 85%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 with results within specification limits.

<sup>2</sup> These samples were tested per AECQ-100.