

**Automotive Qualification Results Summary of MSOP Package
at UTAC Thailand (UT3)**

QUALIFICATION RESULTS			
TEST	SPECIFICATION	SAMPLE SIZE	RESULTS
Solder Heat Resistance (SHR)*	JEDEC/IPC <i>J-STD-020</i>	30*11	Pass
Autoclave (AC)*	JEDEC <i>JESD22-A102</i>	16*77	Pass
Unbiased Highly Accelerated Stress Test (UHAST)	JEDEC <i>JESD22-A118</i>	16*77	Pass
Highly Accelerated Stress Test (HAST)	JEDEC <i>JESD22-A110</i>	27*77	Pass
Temperature Cycle (TC)*	JEDEC <i>JESD22-A104</i>	33*77	Pass
Wire Bond Shear	AEC <i>Q100-001</i>	2*5	Pass
Post Temperature Cycle Wire Bond Pull	MIL-STD883 <i>Method 2011</i>	5*5	Pass
High Temperature Storage Life (HTSL)	JEDEC <i>JESD22-A103</i>	17*45	Pass
High Temperature Operating Life (HTOL)	JEDEC <i>JESD22-A108</i>	10*77	Pass
Early Life Failure Rate (ELFR)	AEC <i>Q100-008</i>	9*800	Pass

* These samples were subjected to preconditioning (per J-STD-020 Level 1) prior to the start of the stress test. Level 1 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.