Qualification Results Summary of AD1938 Grade 2
Automotive Polyimide Revision Qualification

QUALIFICATION PLAN / STATUS			
TEST	**SPECIFICATION**	**SAMPLE SIZE**	**RESULTS**
Early Life Failure Rate (ELFR)	MIL-STD-883, M1015	**3 x 800**	**Pass**
High Temperature Operating Life (HTOL)	JEDEC *JESD22-A108*	**3 x 77**	**Pass**
Highly Accelerated Stress Test (HAST)*	JEDEC *JESD22-A110*	**3 x 77**	**Pass**
Temperature Cycle (TC)*	JEDEC *JESD22-A104*	**3 x 77**	**Pass**
Unbiased Highly Accelerated Stress Test (UHAST)*	JEDEC *JESD22-A118*	**3 x 77**	**Pass**
High Temperature Storage Life (HTSL)	JEDEC *JESD22-A103*	**1 x 45**	**Pass**
Solder Heat Resistance (SHR)*	JEDEC/IPC *J-STD-020*	**1 x 30**	**Pass**
Latch-Up	JEDEC *JESD78*	**6**	**Pass**
Electrostatic Discharge *Human Body Model*	ESDA/JEDEC *JS-001*	**3/voltage**	**Pass ±4000V**
Electrostatic Discharge *Field-Induced Charged Device Model*	ESDA/JEDEC *JS-002*	**3/voltage**	**Pass ±1250V**
Wire Bond Pull (Post-TC)	MIL-STD-883, M2011	**1 x 5**	**Pass**

* 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 125ºC; 2. Soak – unbiased soak for 192 hours at 30ºC, 60%RH; 3. Reflow – three passes through a reflow oven with a peak temperature of 260ºC. TC samples were subjected to wire-pull test after 500 cycles with results within specification limits.