## Die Revision for ADSP-SC58x & ADSP-2158x SHARC Processors

## **Automotive Qualification Results Summary for ADSP-SC58x and ADSP-2158x Products**

QUALIFICATION RESULTS			
TEST	SPECIFICATION	SAMPLE SIZE	RESULTS
Solder Heat Resistance (SHR) <sup>1</sup>	JEDEC/IPC <i>J-STD-020</i>	3x10	Pass
Latch-Up <sup>2</sup>	JEDEC <i>JESD78</i>	1x18	Pass +/-200mA
Electrostatic Discharge Human Body Model(ESD-HBM) <sup>2</sup>	ESDA/JEDEC JS-001	1x18	Pass +/-2000V
Electrostatic Discharge Field-Induced Charged Device Model(ESD-FICDM) <sup>2</sup>	ESDA/JEDEC JS-002	1x15	Pass <sup>3</sup> +/-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 1000 cycles with results within specification limits.

<sup>&</sup>lt;sup>2</sup> Pre- and post-stress electrical test was performed at room and hot temperatures.

<sup>&</sup>lt;sup>3</sup> Passing level for FICDM is +/-750 V for 400 CSP BGA. Passing level for FICDM is +/-500 all pins and +/-700 corner pins for 176 LQFP-EP and meets AEC Q100 requirements.