Automotive Qualification Results Summary of 16L SOIC_W Package at ASE Chungli

QUALIFICATION RESULT			
TEST	SPECIFICATION	SAMPLE SIZE	RESULT
Temperature Cycle (TC)*	JEDEC <i>JESD22-A104</i>	3 x 77	PASS
Highly Accelerated Stress Test (HAST)*	JEDEC JESD22-A110	3 x 77	PASS
Autoclave (AC)*	JEDEC JESD22-A102	3 x 77	PASS
Solder Heat Resistance (SHR)*	JEDEC/IPC J-STD-020	3 x 11	PASS
Solderability	JEDEC JESD22-B102	3 x 5	PASS
High Temperature Storage (HTS)	JEDEC JESD22-A103	1 x 77	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: Bake: 24 hrs @ 125°C, Unbiased Soak: 192 hrs @ 30°C, 60%RH, Reflow: 3 passes through an oven with a peak temperature of 260°C. TC samples were subjected to wire-pull test after 500 cycles with results within specification limits

Automotive Qualification Results Summary of 8L/16L SOIC_N Package at ASE Chungli

QUALIFICATION RESULT			
TEST	SPECIFICATION	SAMPLE SIZE	RESULT
Temperature Cycle (TC)*	JEDEC <i>JESD22-A104</i>	3 x 77	PASS
Highly Accelerated Stress Test (HAST)*	JEDEC JESD22-A110	3 x 77	PASS
Autoclave (AC)*	JEDEC <i>JESD22-A102</i>	3 x 77	PASS
Solder Heat Resistance (SHR)*	JEDEC/IPC J-STD-020	3 x 11	PASS
Solderability	JEDEC JESD22-B102	3 x 5	PASS
High Temperature Storage (HTS)	JEDEC JESD22-A103	1 x 77	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: Bake: 24 hrs @ 125°C, Unbiased Soak: 168 hrs @ 85°C, 85%RH, Reflow: 3 passes through an oven with a peak temperature of 260°C. TC samples were subjected to wire-pull test after 500 cycles with results within specification limits

Material Set Change:

Package Material	Set	Carsem	ASE Chungli
SOIC_N	Die Attach	Ablestik 84-1LMISR4	Hitachi EN4900GC
SOIC_W	Mold Compound	Sumitomo 6600H or G600C	Sumitomo G700LY
SOIC_IC	Wire	1.0mil and 1.3 mil Gold Wire	1.0mil and 1.3mil Gold Wire

Package Material	Set	Carsem	ASE Chungli
SOIC_N	Die Attach	Ablestik 84-3J	Ablestik 2025D
SOIC_W	Mold Compound	Sumitomo 6600H or G600C	Sumitomo G700LY
SOIC_IC	Wire	1.0mil and 1.3 mil Gold Wire	1.0mil and 1.3mil Gold Wire

8L/16L SOIC_N at ASE Chungli Qualification Results Summary

QUALIFICATION RESULT			
Test	SPECIFICATION	SAMPLE SIZE	RESULT
Temperature Cycle (TC)*	JEDEC JESD22-A104	3 x 77	PASS
Highly Accelerated Stress Test (HAST)*	JEDEC JESD22-A110	3 x 77	PASS
Autoclave (AC)*	JEDEC JESD22-A102	3 x 77	PASS
Solder Heat Resistance (SHR)*	JEDEC/IPC J-STD-020	3 x 11	PASS
High Temperature Storage (HTS)	JEDEC JESD22-A103	1 x 77	PASS

^{*}Preconditioned per JEDEC/IPC J-STD-020

16L/20L SOIC_W at ASE Chungli Qualification Results Summary

QUALIFICATION RESULT			
Test	SPECIFICATION	SAMPLE SIZE	RESULT
Temperature Cycle (TC)*	JEDEC JESD22-A104	3 x 77	PASS
Highly Accelerated Stress Test (HAST)*	JEDEC JESD22-A110	3 x 77	PASS
Autoclave (AC)*	JEDEC JESD22-A102	3 x 77	PASS
Solder Heat Resistance (SHR)*	JEDEC/IPC J-STD-020	3 x 11	PASS
High Temperature Storage (HTS)	JEDEC JESD22-A103	1 x 77	PASS

^{*}Preconditioned per JEDEC/IPC J-STD-020

16L/20L SOIC_IC at ASE Chungli Qualification Results Summary

QUALIFICATION RESULT			
TEST	SPECIFICATION	SAMPLE SIZE	RESULT
Temperature Cycle (TC)*	JEDEC JESD22-A104	3 x 77	PASS
Highly Accelerated Stress Test (HAST)*	JEDEC JESD22-A110	3 x 77	PASS
Solder Heat Resistance (SHR)*	JEDEC/IPC J-STD-020	3 x 11	PASS
High Temperature Storage (HTS)	JEDEC JESD22-A103	1 x 77	PASS

^{*}Preconditioned per JEDEC/IPC J-STD-020