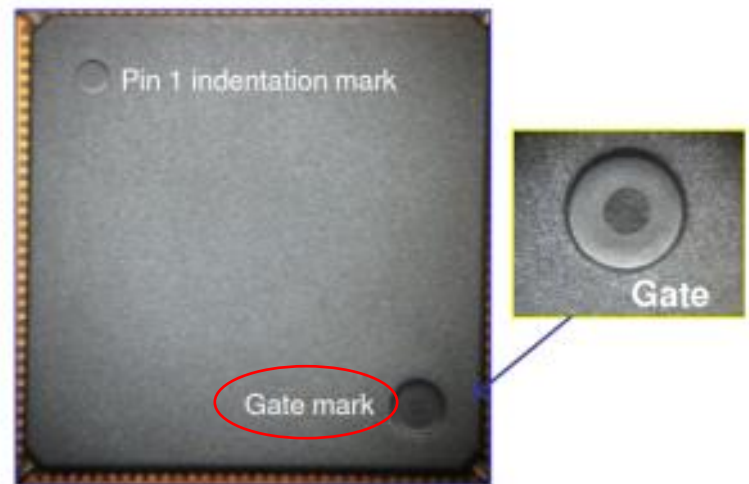


14x14 Mold Compound & Mold Gate Position Change

Change Item	AK1	AP1	Reason for Change
14BD Mold Compound	Sumitomo G700L	Sumitomo G631HQ	AP1 standard
14x14 Mold Gate Position	Package corner	Package top side, opposite corner of Pin 1 mark	AP1 standard



AK1 Example



AP1 Example

Assembly Transfer of Selected 14x14 LQFP, 14x14 LQFP_EP and 7x7,10x10,12x12,14x14 TQFP_EP Products to Amkor Philippines

Qualification Results Summary of 10x10, 12x12 TQFP_EP Using G700L/8361J at Amkor Philippines

QUALIFICATION PLAN / STATUS			
TEST	SPECIFICATION	SAMPLE SIZE	RESULTS
Temperature Cycle (TC)*	JEDEC JESD22-A104	3 x 32	Pass
Unbiased HAST (uHAST)*	JEDEC JESD22-A118	3 x 32	Pass
Highly Accelerated Stress Test (HAST)*	JEDEC JESD22-A110	3 x 32	Pass
Solder Heat Resistance (SHR)*	JEDEC/IPC J-STD-020	3 x 11	Pass
High Temperature Storage Life (HTSL)	JEDEC JESD22-A103	1 x 32	Pass
Electrostatic Discharge Field-Induced Charged Device Model	JEDEC JESD22-C101	3/voltage	Pass 1250 V

*Preconditioned per JEDEC/IPC J-STD-020

Assembly Transfer of Selected 14x14 LQFP, 14x14 LQFP_EP and 7x7,10x10,12x12,14x14 TQFP_EP Products to Amkor Philippines

Qualification Result Summary of 14x14 LQFP Using G631HQ/3230 at Amkor Philippines

QUALIFICATION PLAN / STATUS			
TEST	SPECIFICATION	SAMPLE SIZE	RESULT
Temperature Cycle (TC)*	JEDEC JESD22-A104	3 x 45	Pass
Unbiased HAST (uHAST)*	JEDEC JESD22-A118	3 x 45	Pass
Highly Accelerated Stress Test (HAST)*	JEDEC JESD22-A110	3 x 45	Pass
Solder Heat Resistance (SHR)*	JEDEC/IPC J-STD-020	3 x 11	Pass
High Temperature Storage Life (HTSL)	JEDEC JESD22-A103	1 x 45	Pass
Electrostatic Discharge Field-Induced Charged Device Model (FICDM)	JEDEC JESD22-C101	3/voltage	Pass 250V

*Preconditioned per JEDEC/IPC J-STD-020

Assembly Transfer of Selected 14x14 LQFP, 14x14 LQFP_EP and 7x7,10x10,12x12,14x14 TQFP_EP Products to Amkor Philippines

Qualification Results Summary of 14x14 LQFP Using G631HQ/3230/QMI536 at Amkor Philippines

QUALIFICATION PLAN / STATUS			
TEST	SPECIFICATION	SAMPLE SIZE	EXPECTED COMPLETION DATE
Temperature Cycle (TC)*	JEDEC JESD22-A104	3 x 45	Pass
Unbiased HAST (uHAST)*	JEDEC JESD22-A118	3 x 45	Pass
Highly Accelerated Stress Test (HAST)*	JEDEC JESD22-A110	3 x 45	Pass
Solder Heat Resistance (SHR)*	JEDEC/IPC J-STD-020	3 x 11	Pass
High Temperature Storage Life (HTSL)	JEDEC JESD22-A103	1 x 45	Pass
Electrostatic Discharge Field-Induced Charged Device Model	JEDEC JESD22-C101	3/Voltage	Pass 1250 V

*Preconditioned per JEDEC/IPC J-STD-020

Assembly Transfer of Selected 14x14 LQFP, 14x14 LQFP_EP and 7x7,10x10,12x12,14x14 TQFP_EP Products to Amkor Philippines

Qualification Results Summary of 14x14 LQFP_EP Using G631HQ/3230 at Amkor Philippines

QUALIFICATION PLAN / STATUS			
TEST	SPECIFICATION	SAMPLE SIZE	EXPECTED COMPLETION DATE
Highly Accelerated Stress Test (HAST)*	JEDEC JESD22-A110	3 x 35	Pass
Temperature Cycle (TC)*	JEDEC JESD22-A104	3 x 35	Pass
Unbiased HAST (uHAST)*	JEDEC JESD22-A118	3 x 35	Pass
High Temperature Storage Life (HTSL)	JEDEC JESD22-A103	3 x 35	Pass
Solder Heat Resistance (SHR)*	JEDEC/IPC J-STD-020	3 x11	Pass
Electrostatic Discharge Field-Induced Charged Device Model (FICDM)	JEDEC JESD22-C101	3/Voltage	Pass 750 V

*Preconditioned per JEDEC/IPC J-STD-020



Assembly Transfer of Selected 14x14 LQFP, 14x14 LQFP_EP and 7x7,10x10,12x12,14x14 TQFP_EP Products to Amkor Philippines

Qualification Results Summary of 14x14 TQFP_EP Using G631HQ/3230 at Amkor Philippines

QUALIFICATION PLAN / STATUS			
TEST	SPECIFICATION	SAMPLE SIZE	RESULTS
Temperature Cycle (TC)*	JEDEC JESD22-A104	3 x 45	Pass
Unbiased HAST (uHAST)*	JEDEC JESD22-A118	3 x 45	Pass
Highly Accelerated Stress Test (HAST)*	JEDEC JESD22-A110	3 x 45	Pass
Solder Heat Resistance (SHR)*	JEDEC/IPC J-STD-020	3 x 11	Pass
High Temperature Storage Life (HTSL)	JEDEC JESD22-A103	1 x 45	Pass
Electrostatic Discharge Field-Induced Charged Device Model	JEDEC JESD22-C101	3/voltage	Pass 750 V

*Preconditioned per JEDEC/IPC J-STD-020

Assembly Transfer of Selected 14x14 LQFP, 14x14 LQFP_EP and 7x7,10x10,12x12,14x14 TQFP_EP Products to Amkor Philippines

Qualification Results Summary of 7x7, 10x10, 12x12 TQFP_EP Using G700L/3230 at Amkor Philippines

QUALIFICATION PLAN / STATUS			
TEST	SPECIFICATION	SAMPLE SIZE	RESULTS
Temperature Cycle (TC)*	JEDEC JESD22-A104	3 x 32	Pass
Unbiased HAST (uHAST)*	JEDEC JESD22-A118	3 x 32	Pass
Highly Accelerated Stress Test (HAST)*	JEDEC JESD22-A110	3 x 32	Pass
Solder Heat Resistance (SHR)*	JEDEC/IPC J-STD-020	3 x 11	Pass
High Temperature Storage Life (HTSL)	JEDEC JESD22-A103	1 x 32	Pass
Electrostatic Discharge Field-Induced Charged Device Model	JEDEC JESD22-C101	3/voltage	Pass 500 V

*Preconditioned per JEDEC/IPC J-STD-020

FG Model	PkgType	BodySize	PkgLeadCount	WIRE DIA. (BEFORE)	WIRE DIA. (AFTER)	EPOXY (BEFORE)	EPOXY (AFTER)	MOLD (BEFORE)	MOLD (AFTER)	MOLD GATE POSITION (BEFORE)	MOLD GATE POSITION (AFTER)
AD9389BBSTZ-165	LQFP	14X14X1.4	80	1	1	Top die: QMI-536Bottom die: 3230	Top die: QMI-536Bottom die: 3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
AD9389BBSTZ-80	LQFP	14X14X1.4	80	1	1	Top die: QMI-536Bottom die: 3230	Top die: QMI-536Bottom die: 3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
AD8116JSTZ	LQFP	14X14X1.4	128	1.2	1.2	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
AD53509JSWZ	LQFP_EP	14X14X1.4	52	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
AD53063-03Z	LQFP_EP	14X14X1.4	80	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
AD53564JSWZ	LQFP_EP	14X14X1.4	100	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
AD9951YSVZ	TQFP_EP	7X7X1.0	48	1	1	3230	3230	G700L	G700L	Pkg corner	Pkg corner
AD9951YSVZ-REEL7	TQFP_EP	7X7X1.0	48	1	1	3230	3230	G700L	G700L	Pkg corner	Pkg corner
AD9952YSVZ	TQFP_EP	7X7X1.0	48	1	1	3230	3230	G700L	G700L	Pkg corner	Pkg corner
AD9952YSVZ-REEL7	TQFP_EP	7X7X1.0	48	1	1	3230	3230	G700L	G700L	Pkg corner	Pkg corner
AD9954YSVZ	TQFP_EP	7X7X1.0	48	1	1	3230	3230	G700L	G700L	Pkg corner	Pkg corner
AD9954YSVZ-REEL7	TQFP_EP	7X7X1.0	48	1	1	3230	3230	G700L	G700L	Pkg corner	Pkg corner
AD6645ASVZ-105	TQFP_EP	10X10X1.0	52	1.2	1.2	3230	3230	G700L	G700L	Pkg corner	Pkg corner
AD9433BSVZ-125	TQFP_EP	10X10X1.0	52	1.2	1.2	3230	3230	G700L	G700L	Pkg corner	Pkg corner
AD1172059Z-2	TQFP_EP	10X10X1.0	64	1	1	8361J	8361J	G700L	G700L	Pkg corner	Pkg corner
AD5560JSVUZ	TQFP_EP	10X10X1.0	64	1	1	8361J	8361J	G700L	G700L	Pkg corner	Pkg corner
AD5560JSVUZ-REEL	TQFP_EP	10X10X1.0	64	1	1	8361J	8361J	G700L	G700L	Pkg corner	Pkg corner
AD7760BSVZ	TQFP_EP	10X10X1.0	64	1	1	3230	3230	G700L	G700L	Pkg corner	Pkg corner
AD7760BSVZ-REEL	TQFP_EP	10X10X1.0	64	1	1	3230	3230	G700L	G700L	Pkg corner	Pkg corner
AD80100ASVZ-80	TQFP_EP	10X10X1.0	52	1.2	1.2	3230	3230	G700L	G700L	Pkg corner	Pkg corner
AD6645ASVZ-80	TQFP_EP	10X10X1.0	52	1.2	1.2	3230	3230	G700L	G700L	Pkg corner	Pkg corner
AD5522JSVDZ	TQFP_EP	12X12X1.0	80	1	1	3230	3230	G700L	G700L	Pkg corner	Pkg corner
AD5522JSVUZ	TQFP_EP	12X12X1.0	80	1	1	3230	3230	G700L	G700L	Pkg corner	Pkg corner
AD5522JSVUZ-RL	TQFP_EP	12X12X1.0	80	1	1	3230	3230	G700L	G700L	Pkg corner	Pkg corner
AD8387JSVZ	TQFP_EP	12X12X1.0	80	1	1	3230	3230	G700L	G700L	Pkg corner	Pkg corner
AD9726BSVZ	TQFP_EP	12X12X1.0	80	1	1	8361J	8361J	G700L	G700L	Pkg corner	Pkg corner
AD9726BSVZRL	TQFP_EP	12X12X1.0	80	1	1	8361J	8361J	G700L	G700L	Pkg corner	Pkg corner
AD9775BSVZ	TQFP_EP	12X12X1.0	80	1	1	3230	3230	G700L	G700L	Pkg corner	Pkg corner
AD9775BSVZRL	TQFP_EP	12X12X1.0	80	1	1	3230	3230	G700L	G700L	Pkg corner	Pkg corner
AD9777BSVZ	TQFP_EP	12X12X1.0	80	1	1	3230	3230	G700L	G700L	Pkg corner	Pkg corner
AD9777BSVZRL	TQFP_EP	12X12X1.0	80	1	1	3230	3230	G700L	G700L	Pkg corner	Pkg corner
AD9786BSVZ	TQFP_EP	12X12X1.0	80	1	1	8361J	8361J	G700L	G700L	Pkg corner	Pkg corner
AD9786BSVZRL	TQFP_EP	12X12X1.0	80	1	1	8361J	8361J	G700L	G700L	Pkg corner	Pkg corner
AD9410BSVZ	TQFP_EP	14X14X1.0	80	1.2	1.2	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
AD9852ASVZ	TQFP_EP	14X14X1.0	80	1.2	1.2	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
AD9854ASVZ	TQFP_EP	14X14X1.0	80	1.2	1.2	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
AD80107Z	TQFP_EP	14X14X1.0	100	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
AD80142BSVZ-200	TQFP_EP	14X14X1.0	100	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
AD80205BSVZ-200	TQFP_EP	14X14X1.0	100	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
AD80215BSVZ-185	TQFP_EP	14X14X1.0	100	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
AD9271BSVZ-25	TQFP_EP	14X14X1.0	100	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark

AD9460BSVZ-105	TQFP_EP	14X14X1.0	100	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
AD9460BSVZ-80	TQFP_EP	14X14X1.0	100	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
AD9461BSVZ	TQFP_EP	14X14X1.0	100	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
AD9858BSVZ	TQFP_EP	14X14X1.0	100	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
AD9910BSVZ	TQFP_EP	14X14X1.0	100	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
AD9910BSVZ-REEL	TQFP_EP	14X14X1.0	100	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
AD9957BSVZ	TQFP_EP	14X14X1.0	100	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
AD9957BSVZ-REEL	TQFP_EP	14X14X1.0	100	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
ADATE302-02BSVZ	TQFP_EP	14X14X1.0	100	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
ADATE305BSVZ	TQFP_EP	14X14X1.0	100	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
ADAU1442YSVZ-3A-RL	TQFP_EP	14X14X1.0	100	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
ADAU1445YSVZ-3A	TQFP_EP	14X14X1.0	100	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
ADAU1445YSVZ-3A-RL	TQFP_EP	14X14X1.0	100	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
ADN4604ASVZ	TQFP_EP	14X14X1.0	100	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark
ADN4604ASVZ-RL	TQFP_EP	14X14X1.0	100	1	1	3230	3230	G700L	G631HQ	Pkg corner	Package top side, opposite corner of Pin 1 mark