

PCN Number:	20220131001.2	PCN Date:	February 18, 2022
Title:	Qualification of TI Malaysia as an additional Assembly and Test site for select devices		
Customer Contact:	PCN Manager	Dept:	Quality Services
Proposed 1st Ship Date:	Aug 18, 2022	Estimated Sample Availability:	Date provided at sample request
Change Type:			
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design
<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change
<input type="checkbox"/>	Mechanical Specification	<input checked="" type="checkbox"/>	Test Site
<input checked="" type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process
		<input type="checkbox"/>	Wafer Bump Site
		<input type="checkbox"/>	Wafer Bump Material
		<input type="checkbox"/>	Wafer Bump Process
		<input type="checkbox"/>	Wafer Fab Site
		<input type="checkbox"/>	Wafer Fab Materials
		<input type="checkbox"/>	Wafer Fab Process

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of TI Malaysia as an additional Assembly and Test site for the list of SOIC devices shown below. Material differences between sites as follows.

	TI Taiwan	TI Malaysia
Leadframe finish	NiPdAu	NiPdAu (Roughened top side)

Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ.

Reason for Change:

Continuity of Supply

Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):

None

Impact on Environmental Ratings

Checked boxes indicate the status of environmental ratings following implementation of this change. If below boxes are checked, there are no changes to the associated environmental ratings.

RoHS	REACH	Green Status	IEC 62474
<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change

Changes to product identification resulting from this PCN:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
TI Taiwan	TAI	TWN	Chung Ho
TI Malaysia	MLA	MYS	Kuala Lumpur

Sample product shipping label (not actual product label)



TEXAS INSTRUMENTS
MADE IN: Malaysia
2DC: 2Q:

MSL 2 /260C/1 YEAR	SEAL DT
MSL 1 /235C/UNLIM	03/29/04

OPT:
ITEM: 39
LBL: 5A (L)T0:1750





(1P) SN74LS07NSR
(Q) 2000 (D) 0336
(31T) LOT: 3959047MLA
(4W) TKY (1T) 7523483SI2
(P)
(2P) REV: (V) 0033317
(20L) CSO: SHE (21L) CCO:USA
(22L) ASO: MLA (23L) ACO: MYS

Product Affected:

AMC1305L25QDWRQ1	AMC1305M05QDWQ1	AMC1305M05QDWRQ1
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Qualification Data
Automotive New Product Qualification Summary
(As per AEC-Q100 and JEDEC Guidelines)

Approved 24-Aug-2021

Product Attributes

Attributes	Qual Device: <u>AMC1305L25QDWRQ1</u>	QBS Product Reference: <u>AMC1305M25QDWRQ1</u>	QBS Process Reference: <u>INA215AQDCKRQ1</u>	QBS Package Reference: <u>AMC1305M25QDWRQ1</u>
Automotive Grade Level	Grade 1	Grade 1	Grade 1	Grade 1
Operating Temp Range	-40 to +125 C	-40 to +125 C	-40 to +125 C	-40 to +125 C
Product Function	Signal Chain	Signal Chain	Signal Chain	Signal Chain
Wafer Fab Supplier	AIZU, DMOS5	AIZU, DMOS5	AIZU	AIZU, DMOS5
Die Revision	BC, D, G	BC, D, G	C	BC, D, G
Assembly Site	MLA	TAI	NFME	MLA
Package Type	SOIC	SOIC	SOT	SOIC
Package Designator	DW	DW	DCK	DW
Ball/Lead Count	16	16	6	16

- QBS: Qual By Similarity

- Qual Device AMC1305L25QDWRQ1 is qualified at LEVEL3-260C

- Device AMC1305L25QDWRQ1 contains multiple dies.

Qualification Results

Data Displayed as: Number of lots / Total sample size / Total failed

Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name / Condition	Duration	Qual Device: <u>AMC1305L25QDWRQ1</u>	QBS Product Reference: <u>AMC1305M25QDWRQ1</u>
Test Group A – Accelerated Environment Stress Tests								
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Automotive Preconditioning Level 2	Level 2-260C	-	-
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Automotive Preconditioning Level 3	Level 3-260C	1/80/0	3/960/0
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0
AC	A3	JEDEC JESD22-A102	3	77	Autoclave 121C	96 Hours	-	3/231/0
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle, -65/150C	500 Cycles	1/77/0	3/231/0
TC-BP	A4	MIL-STD883 Method 2011	1	30	Post TC Bond Pull	Wires	1/30/0	1/30/0

Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name / Condition	Duration	Qual Device: <u>AMC1305L25QDWRQ1</u>	QBS Product Reference: <u>AMC1305M25QDWRQ1</u>
PTC	A5	JEDEC JESD22-A105	1	45	Power Temperature Cycle	1000 Cycles	N/A	-
HTSL	A6	JEDEC JESD22-A103	1	45	High Temp Storage Bake 175C	500 Hours	-	1/45/0
Test Group B – Accelerated Lifetime Simulation Tests								
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test, 125C	1000 Hours	-	-
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test, 150C	408 Hours	-	3/231/0
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate, 125C	48 Hours	-	-
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate, 150C	24 Hours	-	3/2400/0
EDR	B3	AEC Q100-005	3	77	NVM Endurance, Data Retention, and Operational Life	-	N/A	-
Test Group C – Package Assembly Integrity Tests								
WBS	C 1	AEC Q100-001	1	30	Wire Bond Shear (Cpk>1.67)	Wires	1/30/0	3/90/0
WBP	C 2	MIL-STD883 Method 2011	1	30	Wire Bond Pull (Cpk>1.67)	Wires	1/30/0	3/90/0
SD	C 3	JEDEC JESD22-B102	1	15	Surface Mount Solderability	Pb	-	1/15/0
SD	C 3	JEDEC JESD22-B102	1	15	Surface Mount Solderability	Pb Free	-	1/15/0
PD	C 4	JEDEC JESD22-B100 and B108	3	10	Auto Physical Dimensions	Cpk>1.67	-	-
LI	C 6	JEDEC JESD22-B105	1	24	Lead Pull to Destruction	Leads	-	-
Test Group D – Die Fabrication Reliability Tests								
EM	D 1	JESD61	-	-	Electromigration	-	Completed Per Process Technology Requirements	-
TDDDB	D 2	JESD35	-	-	Time Dependant Dielectric Breakdown	-	Completed Per Process Technology Requirements	-
HCI	D 3	JESD60 & 28	-	-	Hot Injection Carrier	-	Completed Per Process Technology Requirements	-
NBTI	D 4	-	-	-	Negative Bias Temperature Instability	-	Completed Per Process Technology Requirements	-
SM	D 5	-	-	-	Stress Migration	-	Completed Per Process Technology	-

Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name / Condition	Duration	Qual Device: AMC1305L25QDWRQ1	QBS Product Reference: AMC1305M25QDWRQ1
							Requirements	
Test Group E – Electrical Verification Tests								
HBM	E2	AEC Q100-002	1	3	ESD - HBM - Q100	4000 V	1/3/0	1/3/0
CDM	E3	AEC Q100-011	1	3	ESD - CDM - Q100	1500 V	1/3/0	1/3/0
LU	E4	AEC Q100-004	1	6	Latch-up	Per AEC-Q100-004	1/6/0	1/6/0
ED	E5	AEC Q100-009	3	30	Auto Electrical Distributions	Cpk>1.67	1/30/0	3/90/0
Additional Tests								
MSL	-	-	-	-	Automotive L3 Powerpad Moisture Sensitivity	Level 3-260C	-	-

Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name / Condition	Duration	QBS Process Reference: INA215AQDCKRQ1	QBS Package Reference: AMC1305M25QDWRQ1
Test Group A – Accelerated Environment Stress Tests								
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Automotive Preconditioning Level 2	Level 2-260C	3/948/0	-
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Automotive Preconditioning Level 3	Level 3-260C	-	3/1344/0
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST, 130C/85%RH	96 Hours	3/231/0	3/231/0
AC	A3	JEDEC JESD22-A102	3	77	Autoclave 121C	96 Hours	3/231/0	3/231/0
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0
TC-BP	A4	MIL-STD883 Method 2011	1	30	Post TC Bond Pull	Wires	1/30/0	1/30/0
PTC	A5	JEDEC JESD22-A105	1	45	Power Temperature Cycle	1000 Cycles	-	-
HTSL	A6	JEDEC JESD22-A103	1	45	High Temp Storage Bake 175C	500 Hours	1/45/0	3/231/0
Test Group B – Accelerated Lifetime Simulation Tests								
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test, 125C	1000 Hours	3/231/0	-
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test, 150C	408 Hours	-	1/77/0

Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name / Condition	Duration	QBS Process Reference: <u>INA215AQDCKRQ1</u>	QBS Package Reference: <u>AMC1305M25QDWRQ1</u>
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate, 125C	48 Hours	3/2400/0	-
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate, 150C	24 Hours	-	-
EDR	B3	AEC Q100-005	3	77	NVM Endurance, Data Retention, and Operational Life	-	-	-
Test Group C – Package Assembly Integrity Tests								
WBS	C 1	AEC Q100-001	1	30	Wire Bond Shear (Cpk>1.67)	Wires	1/30/0	3/90/0
WBP	C 2	MIL-STD883 Method 2011	1	30	Wire Bond Pull (Cpk>1.67)	Wires	1/30/0	3/90/0
SD	C 3	JEDEC JESD22-B102	1	15	Surface Mount Solderability	Pb	-	1/15/0
SD	C 3	JEDEC JESD22-B102	1	15	Surface Mount Solderability	Pb Free	-	1/15/0
PD	C 4	JEDEC JESD22-B100 and B108	3	10	Auto Physical Dimensions	Cpk>1.67	-	3/30/0
LI	C 6	JEDEC JESD22-B105	1	24	Lead Pull to Destruction	Leads	-	1/24/0
Test Group D – Die Fabrication Reliability Tests								
EM	D 1	JESD61	-	-	Electromigration	-	-	-
Tddb	D 2	JESD35	-	-	Time Dependant Dielectric Breakdown	-	-	-
HCI	D 3	JESD60 & 28	-	-	Hot Injection Carrier	-	-	-
NBTI	D 4	-	-	-	Negative Bias Temperature Instability	-	-	-
SM	D 5	-	-	-	Stress Migration	-	-	-
Test Group E – Electrical Verification Tests								
HBM	E2	AEC Q100-002	1	3	ESD - HBM - Q100	4000 V	-	1/3/0
CDM	E3	AEC Q100-011	1	3	ESD - CDM - Q100	1500 V	-	1/3/0
LU	E4	AEC Q100-004	1	6	Latch-up	Per AEC-Q100-004	-	1/6/0
ED	E5	AEC Q100-009	3	30	Auto Electrical Distributions	Cpk>1.67	-	1/30/0
Additional Tests								
MSL	-	-	-	-	Automotive L3 Powerpad Moisture Sensitivity	Level 3-260C	-	3/36/0

A1 (PC): Preconditioning:

Performed for THB, Biased HAST, AC, uHAST, TC & PTC samples, as applicable.

Ambient Operating Temperature by Automotive Grade Level:

Grade 0 (or E): -40°C to +150°C
 Grade 1 (or Q): -40°C to +125°C
 Grade 2 (or T): -40°C to +105°C
 Grade 3 (or I) : -40°C to +85°C

E1 (TEST): Electrical test temperatures of Qual samples (High temperature according to Grade level):

Room/Hot/Cold : HTOL, ED

Room/Hot : THB / HAST, TC / PTC, HTSL, ELFR, ESD & LU

Room : AC/uHAST

Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

Qualification Data Automotive New Product Qualification Summary (As per AEC-Q100 and JEDEC Guidelines)

Approved 24-Aug-2021

Product Attributes

Attributes	Qual Device: <u>AMC1305M05QDWRQ1</u>	QBS Product Reference: <u>AMC1305M25QDWRQ1</u>	QBS Process Reference: <u>INA210BQDCKRQ1</u>	QBS Process Reference: <u>INA215AQDCKRQ1</u>	QBS Package Reference: <u>AMC1305M25QDWRQ1</u>
Automotive Grade Level	Grade 1	Grade 1	Grade 1	Grade 1	Grade 1
Operating Temp Range	-40 to +125 C	-40 to +125 C	-40 to +125 C	-40 to +125 C	-40 to +125 C
Product Function	Signal Chain / Interface	Signal Chain	Signal Chain	Signal Chain	Signal Chain / Interface
Wafer Fab Supplier	AIZU, DP1DM5	AIZU, DM5-DALLAS, DMOS 5	AIZU	AIZU	AIZU, DP1DM5
Die Revision	BC, D, G	BC, D, G	D	C	BC, D, G
Assembly Site	MLA	TITL (TAI)	NFME	NFME	MLA
Package Type	SOIC	SOIC	SOT	SOT	SOIC
Package Designator	DW	DW	DCK	DCK	DW
Ball/Lead Count	16	16	6	6	16

- QBS: Qual By Similarity

- Qual Device AMC1305M05QDWRQ1 is qualified at LEVEL3-260C

- Device AMC1305M05QDWRQ1 contains multiple dies.

Qualification Results

Data Displayed as: Number of lots / Total sample size / Total failed

Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name / Condition	Duration	Qual Device: <u>AMC1305M05QDWRQ1</u>	QBS Product Reference: <u>AMC1305M25QDWRQ1</u>
Test Group A – Accelerated Environment Stress Tests								
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Automotive Preconditioning Level 2	Level 2-260C	-	-
PC	A1	JEDEC J-STD-	3	77	Automotive Preconditioning	Level 3-260C	-	3/960/0

Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name / Condition	Duration	Qual Device: <u>AMC1305M05QDWRQ1</u>	QBS Product Reference: <u>AMC1305M25QDWRQ1</u>
		020 JESD22-A113			Level 3			
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0
AC	A3	JEDEC JESD22-A102	3	77	Autoclave 121C	96 Hours	-	3/231/0
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle, -65/150C	500 Cycles	-	3/231/0
TC-BP	A4	MIL- STD883 Method 2011	1	60	Post TC Bond Pull	Wires	-	-
TC-WBP	A4	MIL- STD883 Method 2011	1	60	Auto Post TC Bond Pull	per MIL- STD 883 Method 2011	-	1/50/0
PTC	A5	JEDEC JESD22-A105	1	45	Power Temperature Cycle	1000 Cycles	N/A	-
HTSL	A6	JEDEC JESD22-A103	1	45	High Temp Storage Bake 175C	500 Hours	-	1/45/0
Test Group B – Accelerated Lifetime Simulation Tests								
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test, 125C	1000 Hours	-	-
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test, 150C	408 Hours	-	3/231/0
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate, 125C	48 Hours	-	-
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate, 150C	24 Hours	-	12/2505/0
EDR	B3	AEC Q100-005	3	77	NVM Endurance, Data Retention, and Operational Life	-	N/A	-
Test Group C – Package Assembly Integrity Tests								
WBS	C 1	AEC Q100-001	1	30	Auto Wire Bond Shear	Cpk>1.67	1/30/0	-
WBP	C 2	MIL- STD883	1	30	Auto Wire Bond Pull	Cpk>1.67	1/30/0	-

Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name / Condition	Duration	Qual Device: <u>AMC1305M05QDWRQ1</u>	QBS Product Reference: <u>AMC1305M25QDWRQ1</u>
		Method 2011						
WBP	C2	MIL-STD883 Method 2011	1	30	Bond Pull	Cpk>1.67	-	-
SD	C3	JEDEC JESD22-B102	1	15	Surface Mount Solderability	Pb Free	-	1/15/0
SD	C3	JEDEC JESD22-B102	1	15	Surface Mount Solderability	Pb	-	-
PD	C4	JEDEC JESD22-B100 and B108	3	10	Auto Physical Dimensions	Cpk>1.67	-	-
LI	C6	JEDEC JESD22-B105	1	50	Lead Fatigue	To Destruction	-	1/5/0
LI	C6	JEDEC JESD22-B105	1	50	Lead Pull to Destruction	Leads	-	-
Test Group D – Die Fabrication Reliability Tests								
EM	D1	JESD61	-	-	Electromigration	-	Completed Per Process Technology Requirements	-
TDD B	D2	JESD35	-	-	Time Dependant Dielectric Breakdown	-	Completed Per Process Technology Requirements	-
HCI	D3	JESD60 & 28	-	-	Hot Injection Carrier	-	Completed Per Process Technology Requirements	-
NBTI	D4	-	-	-	Negative Bias Temperature Instability	-	Completed Per Process Technology Requirements	-
SM	D5	-	-	-	Stress Migration	-	Completed Per Process Technology Requirements	-
Test Group E – Electrical Verification Tests								
HBM	E2	AEC Q100-002	1	3	ESD - HBM - Q100	4000 V	-	1/3/0
CDM	E3	AEC Q100-011	1	3	ESD - CDM - Q100	1500 V	-	1/3/0
LU	E4	AEC Q100-004	1	6	Latch-up	(Per AEC-Q100-004)	-	1/6/0
ED	E5	AEC Q100-009	3	30	Auto Electrical Distributions	Cpk>1.67	-	3/90/0

Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name / Condition	Duration	Qual Device: <u>AMC1305M05QDWRQ1</u>	QBS Product Reference: <u>AMC1305M25QDWRQ1</u>
Additional Tests								
-			-	-	Auto Wire Bond Shear - Die 1 and 2	Cpk>1.67	-	3/90/0
-			-	-	Automotive L3 Powerpad Moisture Sensitivity	Level 3-260C	-	-
-			-	-	Bond Pull - Die 1 and 2	Minimum of 5 devices, 30 wires Cpk>1.67	-	3/90/0

Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name / Condition	Duration	QBS Process Reference: <u>INA210BQDCKRQ1</u>	QBS Process Reference: <u>INA215AQDCKRQ1</u>	QBS Package Reference: <u>AMC1305M25QDWRQ1</u>
Test Group A – Accelerated Environment Stress Tests									
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Automotive Preconditioning Level 2	Level 2-260C	-	3/948/0	-
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Automotive Preconditioning Level 3	Level 3-260C	-	-	4/1344/0
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0	3/231/0
AC	A3	JEDEC JESD22-A102	3	77	Autoclave 121C	96 Hours	-	3/231/0	3/231/0
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle, -65/150C	500 Cycles	-	3/231/0	3/231/0
TC-BP	A4	MIL-STD883 Method 2011	1	60	Post TC Bond Pull	Wires	-	1/30/0	1/30/0
TC-WBP	A4	MIL-STD883 Method 2011	1	60	Auto Post TC Bond Pull	per MIL-STD 883 Method 2011	-	-	-
PTC	A5	JEDEC JESD22-A105	1	45	Power Temperature Cycle	1000 Cycles	-	-	-
HTSL	A6	JEDEC JESD22-	1	45	High Temp Storage Bake	500 Hours	-	1/45/0	3/231/0

Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name / Condition	Duration	QBS Process Reference: <u>INA210BQDCKRQ1</u>	QBS Process Reference: <u>INA215AQDCKRQ1</u>	QBS Package Reference: <u>AMC1305M25QDWRQ1</u>
		A103			175C				
Test Group B – Accelerated Lifetime Simulation Tests									
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test, 125C	1000 Hours	-	3/231/0	-
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test, 150C	408 Hours	-	-	1/77/0
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate, 125C	48 Hours	-	3/2400/0	-
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate, 150C	24 Hours	-	-	-
EDR	B3	AEC Q100-005	3	77	NVM Endurance, Data Retention, and Operational Life	-	-	-	-
Test Group C – Package Assembly Integrity Tests									
WBS	C1	AEC Q100-001	1	30	Auto Wire Bond Shear	Cpk>1.67	-	1/30/0	3/90/0
WBP	C2	MIL-STD883 Method 2011	1	30	Auto Wire Bond Pull	Cpk>1.67	-	1/30/0	-
WBP	C2	MIL-STD883 Method 2011	1	30	Bond Pull	Cpk>1.67	-	-	3/90/0
SD	C3	JEDEC JESD22-B102	1	15	Surface Mount Solderability	Pb Free	-	-	1/15/0
SD	C3	JEDEC JESD22-B102	1	15	Surface Mount Solderability	Pb	-	-	1/15/0
PD	C4	JEDEC JESD22-B100 and B108	3	10	Auto Physical Dimensions	Cpk>1.67	-	-	3/30/0
LI	C6	JEDEC JESD22-B105	1	50	Lead Fatigue	To Destruction	-	-	-
LI	C6	JEDEC JESD22-B105	1	50	Lead Pull to Destruction	Leads	-	-	1/24/0
Test Group D – Die Fabrication Reliability Tests									
EM	D1	JESD61	-	-	Electromigration	-	-	-	-

Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name / Condition	Duration	QBS Process Reference: <u>INA210BQDCKRQ1</u>	QBS Process Reference: <u>INA215AQDCKRQ1</u>	QBS Package Reference: <u>AMC1305M25QDWRQ1</u>
TDD B	D 2	JESD35	-	-	Time Dependant Dielectric Breakdown	-	-	-	-
HCI	D 3	JESD60 & 28	-	-	Hot Injection Carrier	-	-	-	-
NBTI	D 4	-	-	-	Negative Bias Temperature Instability	-	-	-	-
SM	D 5	-	-	-	Stress Migration	-	-	-	-
Test Group E – Electrical Verification Tests									
HBM	E2	AEC Q100-002	1	3	ESD - HBM - Q100	4000 V	1/3/0	-	1/3/0
CDM	E3	AEC Q100-011	1	3	ESD - CDM - Q100	1500 V	1/3/0	-	1/3/0
LU	E4	AEC Q100-004	1	6	Latch-up	(Per AEC-Q100-004)	1/6/0	-	1/6/0
ED	E5	AEC Q100-009	3	30	Auto Electrical Distributions	Cpk>1.67	9/270/0	-	1/30/0
Additional Tests									
-			-	-	Auto Wire Bond Shear - Die 1 and 2	Cpk>1.67	-	-	-
-			-	-	Automotive L3 Powerpad Moisture Sensitivity	Level 3-260C	-	-	3/36/0
-			-	-	Bond Pull - Die 1 and 2	Minimum of 5 devices, 30 wires Cpk>1.67	-	-	-

A1 (PC): Preconditioning:

Performed for THB, Biased HAST, AC, uHAST, TC & PTC samples, as applicable.

Ambient Operating Temperature by Automotive Grade Level:

Grade 0 (or E): -40°C to +150°C

Grade 1 (or Q): -40°C to +125°C

Grade 2 (or T): -40°C to +105°C

Grade 3 (or I) : -40°C to +85°C

E1 (TEST): Electrical test temperatures of Qual samples (High temperature according to Grade level):

Room/Hot/Cold : HTOL, ED

Room/Hot : THB / HAST, TC / PTC, HTSL, ELFR, ESD & LU

Room : AC/uHAST

Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

For questions regarding this notice, e-mails can be sent to the contacts shown below or your local Field Sales Representative.

Location	E-Mail
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