




PCN Number:	20220202001.2		PCN Date:	February 16, 2022	
Title:	Qualification of TI Malaysia as an alternate Assembly & Test site for the AMC1204QDWRQ1				
Customer Contact:	PCN Manager	Dept:	Quality Services		
Proposed 1st Ship Date:	Aug 16, 2022	Estimated Sample Availability:	Date provided at sample request		
Change Type:					
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Site
<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet	<input type="checkbox"/>	Wafer Bump Material
<input type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input type="checkbox"/>	Wafer Bump Process
<input type="checkbox"/>	Mechanical Specification	<input checked="" type="checkbox"/>	Test Site	<input type="checkbox"/>	Wafer Fab Site
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>	Wafer Fab Materials
		<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Process
PCN Details					
Description of Change:					
<p>Texas Instruments Incorporated is announcing the qualification of TI Malaysia as an additional Assembly & test site for the AMC1204QDWRQ1. There are no construction differences between the 2 sites.</p> <p>Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ</p>					
Reason for Change:					
Supply continuity					
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, New Taipei City		
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:

AMC1204QDWRQ1



TI Information
Selective Disclosure

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

Isolation devices 16DW (Phase 2) offload from TAI to MLA: AMC1204QDWRQ1 Q100
Approved 25-Jan-2022

Product Attributes

Attributes	Qual Device: AMC1204QDWRQ1	QBS Product Reference: AMC1204QDWRQ1	QBS Process Reference: AMC1200STDUBRQ1	QBS Package Reference: AMC1305M25QDWRQ1
Automotive Grade Level	Grade 1	Grade 1	Grade 2	Grade 1
Operating Temp Range	-40 to +125 C	-40 to +125 C	-40 to +105 C	-40 to +125 C
Product Function	Signal Chain	Signal Chain	Signal Chain	Signal Chain / Interface
Wafer Fab Supplier	TSMC-WF2, DP1DM5	TSMC-WF2, DP1DM5	TSMC-WF2, DP1DM5	AIZU, DP1DM5
Die Revision	C, D	C, D	F, G	BC, D, G
Assembly Site	MLA	TAI	MLA	MLA
Package Type	SOIC	SOP	SOP	SOIC
Package Designator	DW	DW	DUB	DW
Ball/Lead Count	16	16	8	16

- QBS: Qual By Similarity
- Qual Device AMC1204QDWRQ1 is qualified at LEVEL3-260C
- Device AMC1204QDWRQ1 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: AMC1204QDWRQ1	QBS Product Reference: AMC1204QDWRQ1	QBS Process Reference: AMC1200STDUBRQ1	QBS Package Reference: AMC1305M25QDWRQ1
Test Group A – Accelerated Environment Stress Tests										
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	Level 3-260C	No Fails	No Fails	-	No Fails
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST, 130C/85%RH	96 Hours	1/77/0	3/231/0	-	3/231/0
AC	A3	JEDEC JESD22-A102	3	77	Autoclave 121C	96 Hours	1/80/0	3/231/0	-	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	-	3/231/0
TC-BP	A4	MIL-STD883 Method 2011	1	60	Post Temp Cycle Bond Pull, 500 Cycles	Wires	1/50/0	1/30/0	-	1/30/0
PTC	A5	JEDEC JESD22-A105	1	45	Power Temperature Cycle	1000 Cycles	N/A	N/A	N/A	N/A
HTSL	A6	JEDEC JESD22-A103	1	45	High Temp Storage Bake 150C	1000 Hours	-	-	-	-
HTSL	A6	JEDEC JESD22-A103	1	45	High Temp Storage Bake 175C	500 Hours	1/45/0	1/45/0	-	3/231/0
Test Group B – Accelerated Lifetime Simulation Tests										
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test, 150C	300 Hours	-	-	3/231/0	-
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test, 150C	408 Hours	1/27/0	3/231/0	-	1/77/0
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate, 125C	24 Hours	-	3/2400/0	3/840/0	-
EDR	B3	AEC Q100-005	3	77	NVM Endurance, Data Retention, and Operational Life	N/A	N/A	N/A	N/A	N/A

Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name / Condition	Duration	Qual Device: AMC1204QDWRQ1	QBS Product Reference: AMC1204QDWRQ1	QBS Process Reference: AMC1200STDUBRQ1	QBS Package Reference: AMC1305M25QDWRQ1
Test Group C – Package Assembly Integrity Tests										
WBS	C1	AEC Q100-001	1	30	Wire Bond Shear, Cpk >1.67	Wires	1/30/0	3/90/0	-	3/90/0
WBP	C2	MIL-STD883 Method 2011	1	30	Bond Pull, Cpk >1.67	Wires	1/30/0	3/90/0	-	3/90/0
SD	C3	JEDEC JESD22-B102	1	15	Solderability	Pb	1/15/0	1/15/0	-	1/15/0
SD	C3	JEDEC JESD22-B102	1	15	Solderability	Pb Free	1/15/0	1/15/0	-	1/15/0
PD	C4	JEDEC JESD22-B100 and B108	3	10	Physical Dimensions	Cpk>1.67	1/30/0	3/30/0	-	3/30/0
SBS	C5	AEC Q100-010	3	50	Solder Ball Shear (Cpk>1.67)	Solder Balls	N/A	N/A	N/A	N/A
LI	C6	JEDEC JESD22-B105	1	50	Lead Pull to Destruction	Leads	-	1/24/0	-	1/24/0
Test Group D – Die Fabrication Reliability Tests										
EM	D1	JESD61	-	-	Electromigration	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
TDDB	D2	JESD35	-	-	Time Dependant Dielectric Breakdown	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
HCI	D3	JESD60 & 28	-	-	Hot Injection Carrier	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
NBTI	D4	-	-	-	Negative Bias Temperature Instability	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
SM	D5	-	-	-	Stress Migration	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
Test Group E – Electrical Verification Tests										
HBM	E2	AEC Q100-002	1	3	ESD - HBM	4000 V	-	1/3/0	-	1/3/0
CDM	E3	AEC Q100-011	1	3	ESD - CDM	1500 V	-	1/3/0	1/3/0	1/3/0
Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name / Condition	Duration	Qual Device: AMC1204QDWRQ1	QBS Product Reference: AMC1204QDWRQ1	QBS Process Reference: AMC1200STDUBRQ1	QBS Package Reference: AMC1305M25QDWRQ1
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	Per AEC-Q100-009 Room, hot, and cold test	1/30/0	3/90/0	3/90/0	1/30/0

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

TI Qualification ID: 20201216-13755

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

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