

PCN Number:	20230613001.2A		PCN Date:	April 21, 2025
Title:	Qualification of TIPI as an alternate Assembly site for select devices			
Customer Contact:	Change Management Team		Dept:	Quality Services
Change Type:				
<input checked="" type="checkbox"/> Assembly Site	<input type="checkbox"/> Assembly Process	<input type="checkbox"/> Assembly Materials		
<input type="checkbox"/> Design	<input type="checkbox"/> Electrical Specification	<input type="checkbox"/> Mechanical Specification		
<input type="checkbox"/> Test Site	<input type="checkbox"/> Packing/Shipping/Labeling	<input type="checkbox"/> Test Process		
<input checked="" 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		
	<input type="checkbox"/> Part number change			
PCN Details				
Description of Change:				
This PCN is canceled. All affected devices will continue to be assembled using current BOM & Assembly site.				
Texas Instruments Incorporated is announcing the qualification of TIPI as an additional Assembly site for select devices. There are no construction differences between the current and new sites.				
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	
Anam	AMP	KOR	Gwangju	
SCK	SCK	KOR	INCHEON	
TIPI	PHI	PHL	Baguio City	
Sample product shipping label (not actual product label)				
Product Affected:				
See page 2				

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

Radar ABL Package - Additional Assembly Source - TIPI (TI Philippines)
Approve Date 25-MAY -2023

Product Attributes

Attributes	Qual Device: AWR1843ABL
Automotive Grade Level	Grade 1 Qualification Test Conditions
Operating Temp Range (C)	-40 to 140C Tj
Product Function	Radar Processor
Die Attributes	
Wafer Fab Supplier	UMC-F12
Wafer Process	1118C014.M8
Die Size (L,W) (um)	7138 x 6980
Package Attributes	
Assembly Site	PHI
Package Group	FCBGA
Package Designator	ABL
Package Size (mm)	10.4 x 10.4
Body Thickness (mm)	0.75
Pin Count	161

Attributes	Qual Device: AWR1843ABL
Lead Finish	SNAGCU
Lead Pitch(mm)	0.65
Mold Compound Supplier	SUMITOMO
Mold Compound Supplier Number	EME-G355-S

- QBS: (Qualification By Similarity) - [AWR1243, 1642, 2243, 6843, 6443, and 1443 products are QBS to AWR1843](#).
- Qualification Device AWR1843ABL is qualified at MSL3 260C

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: AWR1843
Test Group A - Accelerated Environment Stress Tests								
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL3 260C	1 Step	3/873/0
HAST	A2	JEDEC JESD22-A110	3	77	Temperature Humidity Bias	85C/85%RH	1000 Hours	3/231/0
AC/UHAST	A3	JEDEC JESD22-A102/JEDEC JESD22-A118	3	77	Unbiased HAST	110C/85%RH	264 Hours	3/231/0
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle	-55C/150C	1000 Cycles	3/231/0
PTC	A5	JEDEC JESD22-A105	1	45	PTC	-40/125C	1000 Cycles	1/45/0
HTSL	A6	JEDEC JESD22-A103	1	45	High Temperature Storage Life	150C	1000 Hours	3/78/0
Test Group B - Accelerated Lifetime Simulation Tests								

Type	#	Test Spec	Min Lot Qty	SS / Lot	Test Name	Condition	Duration	Qual Device: AWR1843
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test	140C Tj	1000 Hours	3/231/0
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate	140C Tj	48 Hours	3/2400/0
Test Group C - Package Assembly Integrity Tests								
PD	C4	JEDEC JESD22-B100 and B108	3	10	Physical Dimensions	Cpk>1.67	-	3/30/0
SBS	C5	AEC-Q003	3	10	Solder Ball Shear	Cpk>1.67	-	3/30/0
Test Group E - Electrical Verification Tests								
ED	E5	AEC Q100-009	3	30	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	3/90/0
Additional Tests								
BLR	T1	-	1	32	Board Level Reliability - Temp Cycle	-40C/125C	1000 Cycles	1/32/0

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable
- The following are equivalent HTOL options based on an activation energy of 0.7eV : 125C/1k Hours, 140C/480 Hours, 150C/300 Hours, and 155C/240 Hours
- The following are equivalent HTSL options based on an activation energy of 0.7eV : 150C/1k Hours, and 170C/420 Hours
- The following are equivalent Temp Cycle options per JESD47 : -55C/125C/700 Cycles and -65C/150C/500 Cycles

Ambient Operating Temperature by Automotive Grade Level:

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

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 : ACuHAST

Quality and Environmental data is available at TI's external Web site: <http://www.ti.com/>

TI Qualification ID: R-CHG-2111-034

Affected ZVEI IDs: SEM-PA-18, SEM-TF-01

For questions regarding this notice, e-mails can be sent to the Change Management team or your local Field Sales Representative.

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