PCN Number:	20200218000.2	PCN Date:	Feb 19, 2020
Title:	Qualify TI Chengdu as an additional Assembly site for select devices		
Customer Contact:	PCN Manager	Dept:	Quality Services
Proposed 1st Ship Date:	Aug 19, 2020	Estimated Sample Availability:	Provided upon Request

Change Type:

☒	Assembly Site	☐	Design	☐	Wafer Bump Site
☐	Assembly Process	☐	Data Sheet	☐	Wafer Bump Material
☒	Assembly Materials	☐	Part number change	☐	Wafer Bump Process
☐	Mechanical Specification	☐	Test Site	☐	Wafer Fab Site
☒	Packing/Shipping/Labeling	☐	Test Process	☐	Wafer Fab Materials
				☐	Wafer Fab Process

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of TI Chengdu as additional Assembly Site for Select Devices listed in the "Product Affected" Section. Material differences are as follows.

Material Differences:

	UTAC	TI Chengdu
Mount compound	PZ0035	4207123
Leadframe finish	Matte Sn	NiPdAu

Reason for Change:

Continuity of Supply

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

None

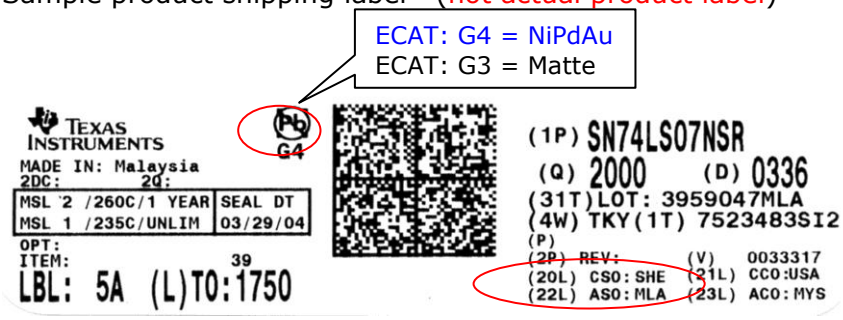
Anticipated impact on Material Declaration

☐	No Impact to the Material Declaration	☒	Material Declarations or Product Content reports are driven from production data and will be available following the production release. Upon production release the revised reports can be obtained from the TI Eco-Info website. There is no impact to the material meeting current regulatory compliance requirements with this PCN change.

Changes to product identification resulting from this PCN:

Assembly Site		
UTAC Thai Limited	Assembly Site Origin (22L)	ASO: NSE
TI Chengdu	Assembly Site Origin (22L)	ASO: CDA

Sample product shipping label (not actual product label)



Product Affected			
DRV8702DQRHBRQ1	DRV8702QRHBRQ1	DRV8703DQRHBRQ1	DRV8703QRHBRQ1
DRV8702DQRHBTQ1	DRV8702QRHBTQ1	DRV8703DQRHBTQ1	DRV8703QRHBTQ1

Qualification Report

Automotive New Product Qualification Summary
(As per AEC-Q100 and JEDEC Guidelines)
Approve Date 12-Feb-2020

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: DRV8702QRHBRQ1	Qual Device: DRV8703QRHBRQ1
Test Group A – Accelerated Environment Stress Tests								
PC	A1	-	3	22	SAM Analysis, Pre Stress	Completed	-	3/66/0
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	Level 2-260C	-	No fails
PC	A1	-	3	22	SAM Analysis, Post Stress	Completed	-	3/66/0
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST, 130C/85%RH	96 Hours	-	3/240/0
HAST	A2	-	3	1	Cross Section, Post bHAST 96 Hours	Completed	-	3/3/0
HAST	A2	-	3	30	Wire Bond Shear, Post bHast, 96 Hours	Wires	-	3/90/0
HAST	A2	-	3	30	Bond Pull over Stitch, post bHAST, 96 Hours	Wires	-	3/90/0
HAST	A2	-	3	30	Bond Pull over Ball, Post bHAST, 96 Hours	Wires	-	3/90/0
HAST	A2	JEDEC JESD22-A110	3	70	Biased HAST, 130C/85%RH	192 Hours	-	3/210/0
HAST	A2	-	3	1	Cross Section, Post bHAST 192 Hours	Completed	-	3/3/0
HAST	A2	-	3	22	SAM Analysis, Post bHAST, 192 Hours	Completed	-	3/66/0
HAST	A2	-	3	30	Wire Bond	Wires	-	3/90/0

Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name / Condition	Duration	Qual Device: DRV8702QRHBRQ1	Qual Device: DRV8703QRHBRQ1
					Shear, Post bHast, 192 Hours			
HAST	A2	-	3	30	Bond Pull over Stitch, post bHAST, 192 Hours	Wires	-	3/90/0
HAST	A2	-	3	30	Bond Pull over Ball, Post bHAST, 192 Hours	Wires	-	3/90/0
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle, -65/150C	500 Cycles	-	3/298/0
TC	A4	-	3	1	Cross Section, Post T/C 500 Cycles	Completed	-	3/3/0
TC	A4	-	3	22	SAM Analysis, Post T/C, 500 Cycles	Completed	-	3/66/0
TC	A4	-	3	30	Wire Bond Shear, Post T/C 500 Cycles	Wires	-	3/90/0
TC	A4	-	3	30	Bond Pull over Stitch Post T/C 500 Cycles	Wires	-	3/90/0
TC	A4	-	3	30	Bond Pull over Ball Post T/C 500 Cycles	Wires	-	3/90/0
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	70	Temperature Cycle, -65/150C	1000 Cycles	-	3/230/1*
TC	A4	-	3	1	Cross Section, Post T/C 1000 Cycles	Completed	-	3/3/0
TC	A4	-	3	22	SAM Analysis, Post T/C, 1000 Cycles	Completed	-	3/66/0
TC	A4	-	3	30	Wire Bond Shear, Post T/C 1000 Cycles	Wires	-	3/90/0
TC	A4	-	3	30	Bond Pull over Stitch, Post T/C, 1000 Cycles	Wires	-	3/90/0
TC	A4	-	3	30	Bond Pull over Ball, Post T/C, 1000 Cycles	Wires	-	3/90/0
PTC	A5	JEDEC JESD22-A105	1	45	Power Temperature Cycle -40/125C	1000 Cycles	-	-
PTC	A5	JEDEC	1	45	Power	2000	-	-

Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name / Condition	Duration	Qual Device: DRV8702QRHBRQ1	Qual Device: DRV8703QRHBRQ1
		JESD22-A105			Temperature Cycle -40/125C	Cycles		
HTSL	A6	JEDEC JESD22-A103	3	45	High Temp Storage Bake 150C	1000 Hours	-	3/138/0
HTSL	A6	-	3	1	Cross Section, Post HTSL 1000 Hours	Completed	-	3/3/0
HTSL	A6	JEDEC JESD22-A103	3	44	High Temp Storage Bake 150C	2000 Hours	-	3/135/0
HTSL	A6	-	3	1	Cross Section, Post HTSL 2000 Hours	Completed	-	3/3/0

A1 (PC): Preconditioning:
Performed for THB, Biased HAST, AC, uHAST & TC samples, as applicable.
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 : AC/uHAST
*: 1 TC fail due to EOS not related to TC, 8D available.
Green/Pb-free Status:
Qualified Pb-Free(SMT) and Green

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