PCN Number:	20211107002.1A	PCN Date:	March 16, 2022
Title:	Qualification of new BOM for select package Devices		
Customer Contact:	PCN Manager	Dept:	Quality Services
Proposed 1st Ship Date:	Feb 9, 2022	Estimated Sample Availability:	Date Provided at Sample 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:

Revision A is to announce the addition of new devices that was not included on the original PCN notification. The new devices are highlighted and **bolded** in the device list below. The expected first shipment date for the new devices will be 90 days from this notice (June 16, 2022) for the newly added devices only. The proposed 1st ship date of Feb 09, 2022 still applies for the original set of devices.

Texas Instruments Incorporated is announcing the qualification of new material set for the devices listed in the "Product Affected" Section. Devices will remain at current location.

Material Difference:

	Current	Proposed
Lead finish	NiPdAu	Matte Sn

Upon expiration of this PCN, TI will combine lead free solutions in a single ***standard part number***, for example; ***SN566230RJER*** – can ship with both Matte Sn and NiPdAu.

Example:

- Customer order for 7500 units of SN566230RJER with 2500 units SPQ (Standard Pack Quantity per Reel).
- TI can satisfy the above order in one of the following ways.
  - I. 3 Reels of NiPdAu finish.
  - II. 3 Reels of Matte Sn finish
  - III. 2 Reels of Matte Sn and 1 reel of NiPdAu finish.
  - IV. 2 Reels of NiPdAu and 1 reel of Matte Sn finish.

Reason for Change:

Continuity of supply.

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

None

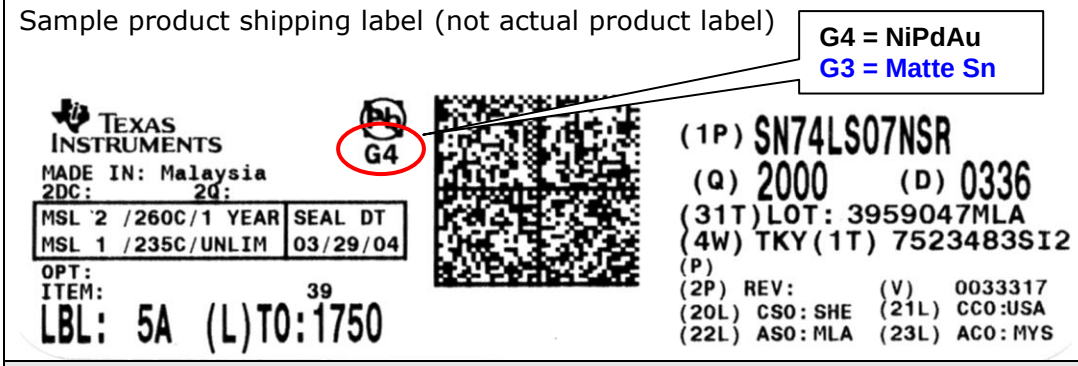
Impact on Environmental Ratings

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
☒ No Change	☒ No Change	☒ No Change	☒ No Change

Changes to product identification resulting from this PCN:

Sample product shipping label (not actual product label)



Product Affected:

AU1828RYDR	SN62827CDMQR	TPS51397ARJER	**TPS62085RLTT**
BQ25620RYKR	**TAS2780RYAR**	TPS51397RJER	TPS6282533DMQR
PTAS2780RYAR	**TAS2780RYAT**	TPS51488RJER	**TPS6286800CRQYR**
PTPS22992RXPR	**TLV62085RLTR**	**TPS548A28RWWR**	**TPS628680ARQYR**
PTPS22992RXQR	**TLV62085RLTT**	**TPS548A29RWWR**	**TPS6286810CRQYR**
PTPS259850RQPR	**TPS22992RXPR**	**TPS54JA20RWWR**	**TPS6286820CRQYR**
PTPS259851RQPR	**TPS22992RXQR**	**TPS552882RPMT**	**TPS6286900CRQYR**
PTPS51383RJNR	**TPS259850RQPR**	TPS568230RJER	**TPS6286910CRQYR**
PTPS55289RYQR	**TPS259851RQPR**	TPS568230RJET	**TPS6286920CRQYR**
SN566230RJER	**TPS51383RJNR**	TPS568330RJET	**TPS628692ARQYR**
SN566230RJET	TPS51396ARJER	TPS56C230RJER	**TPS92200D1RXLR**
SN62085RLTR	TPS51396ARJET	**TPS56C231RNNR**	**TPS92200D2RXLR**
SN62825CDMQR	TPS51396RJER	**TPS61288LRQQR**	**XTPS56C231RNNR**
SN62826CDMQR	TPS51396RJET	**TPS62085RLTR**	**XTPS61376DCRYHR**

Qualification Report

Approve Date 22-Jun-2021

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: TPS53831RWZR	Qual Device: TPS543620RPYR	Qual Device: TPS62903RPJR	QBS Package Reference: SN62825DMQR	QBS Package Reference: TPS62085RLTR
AC	Autoclave 121C	96 Hours	3/231/0	-	3/231/0	-	3/231/0
CDM	ESD - CDM	1500V	-	-	-	2/6/0	-
HAST	Biased HAST, 130C/85%RH	96 Hours	2/154/0	-	-	3/231/0	3/231/0

Type	Test Name / Condition	Duration	Qual Device: TPS53831RWZR	Qual Device: TPS543620RPYR	Qual Device: TPS62903RPJR	QBS Package Reference: SN62825DMQR	QBS Package Reference: TPS62085RLTR
HBM	ESD - HBM	3000V	-	-	-	1/3/0	-
HTSL	High Temp Storage Bake 150C	1000 Hours	-	-	-	-	3/2310
HTSL	High Temp Storage Bake 170C	420 Hours	3/231/0	3/231/0	3/231/0	3/231/0	-
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	Pass	Pass	Pass
MSL	Thermal Integrity Sequence	Level 2-260C	3/36/0	3/36/0	3/36/0	-	3/36/0
PD	Physical Dimensions	(per mechanical drawing)	3/15/0	3/15/0	3/15/0	-	3/15/0
SD	Solderability	Pb Free	3/66/0	3/66/0	3/66/0	2/44/0	3/66/0
TC	Temperature Cycle, -55/125C	700 Cycles	3/231/0	3/231/0	-	-	3/231/0
TC	Temperature Cycle, -65/150C	500 Cycles	-	-	3/231/0	3/231/0	-
UHAST	Unbiased HAST 130C/85%RH	96 Hours	-	3/231/0	-	3/231/0	-
VM	Visual Quality Reliability Inspection	Post Temp Cycle	3/6/0	3/6/0	3/6/0	-	3/6/0

- QBS: Qual By Similarity
- Qual Device TPS53831RWZR, TPS543620RPYR, TPS62903RPJR are qualified at LEVEL2-260C

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

Green/Pb-free Status:
Qualified Pb-Free(SMT) and Green

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