PCN Number:	20231127002.1	PCN Date:	November 27, 2023
Title:	Qualification of HFTF as an alternate Assembly site for select devices		
Customer Contact:	Change Management Team	Dept:	Quality Services
Proposed 1st Ship Date:	Feb 28, 2024	Sample requests accepted until:	Dec 28, 2023*

*Sample requests received after Dec 28, 2023 will not be supported.

Change Type:

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

PCN Details

Description of Change:

Texas Instruments Incorporated is announcing the qualification of HFTF as an additional Assembly site for set of devices listed below. Construction differences are as follows:

	Hana	HFTF
Mold Compound	450596	R-30
Mount Compound	400180	A-18
Lead finish	NiPdAu	Matte Sn

Upon expiration of this PCN, TI will combine lead free solutions in a single ***standard part number***, for example; ***PCA9306DCTR***– can ship with both Matte Sn and NiPdAu.

Example:

- Customer order for 7500 units of PCA9306DCTR 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:

Supply continuity

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

None

Impact on Environmental Ratings

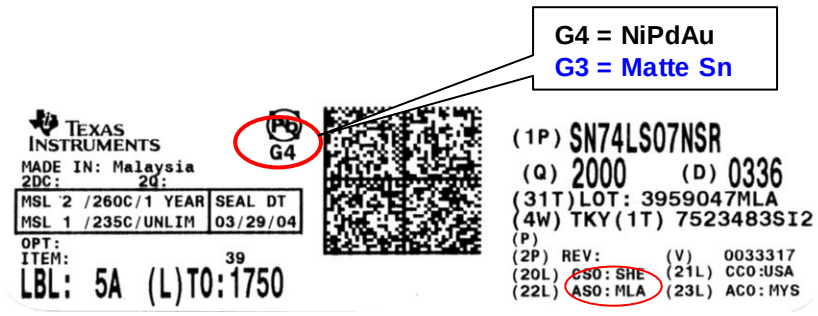
Checked boxes indicate the status of environmental ratings following implementation of this change. If below boxes are checked, there are no changes to the associated environmental ratings.

RoHS	REACH	Green Status	IEC 62474
☒ No Change	☒ No Change	☒ No Change	☒ No Change

Changes to product identification resulting from this PCN:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
Hana	HNT	THA	Ayutthaya
HFTF	**HFT**	**CHN**	**Hefei**

Sample product shipping label (not actual product label)



Product Affected:

PCA9306DCTR	PCA9306DCTT

Qualification Report

Approve Date 25-January-2023

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: PCA9306DCTR	QBS Reference: TPS51217DSCR	QBS Reference: OPA2388QDGKRQ1
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	3/231/0	3/231/0
UHAST	A3	Autoclave	121C/15psig	96 Hours	3/231/0	3/231/0	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	3/231/0	3/231/0	3/231/0
HTSL	A6	High Temperature Storage Life	170C	420 Hours	3/231/0	3/231/0	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	3/231/0
HTOL	B1	Life Test	135C	635 Hours	-	3/231/0	-
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	3/228/0	-	-
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	3/228/0	-	-
SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	3/45/0
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	3/45/0
PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	3/30/0
ESD	E2	ESD CDM	-	1500 Volts	-	3/9/0	1/3/0
ESD	E2	ESD CDM	-	250 Volts	1/3/0	-	-
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	-	-
ESD	E2	ESD HBM	-	2000 Volts	-	3/9/0	-
ESD	E2	ESD HBM	-	4000 Volts	-	-	1/3/0
LU	E4	Latch-Up	Per JESD78	-	1/3/0	3/18/0	1/6/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	3/60/0	-
CHAR	E5	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	-	-	3/90/0

QBS: Qual By Similarity
Qual Device PCA9306DCTR is qualified at MSL1 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

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