

PCN Number:	20211107000.1A		PCN Date:	January 14, 2022	
Title:	Qualification of HFTF as additional Assembly site for select devices				
Customer Contact:	PCN Manager	Dept:	Quality Services		
Proposed 1st Ship Date:	Apr 14, 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 checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input type="checkbox"/>	Wafer Bump Process
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Wafer Fab Site
<input checked="" 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:					
Revision A is to update the description of change to include a change in mold compound for the proposed change. We apologize for any inconvenience this may have caused.					
Texas Instruments Incorporated is announcing the qualification of HFTF as an additional Assembly site for devices listed below in the product affected section. Construction differences and current assembly sites are as follows:					
		ASESH		HFTF	
	Mount Compound	EY1000063		A-18	
	Mold Compound	EN2000763		R-30	
	Lead Finish	NiPdAu		Matte Sn	
Upon expiry of this PCN TI will combine lead free solutions in a single <u>standard part number</u> , for the devices shown below. For example; <u>SN65HVD71DGK</u> – can ship with both Matte Sn and NiPdAu.					
Example:					
	– Customer order for 7500 units of SN65HVD71DGK 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
<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
ASESH	ASH	CHN	Shanghai
HFTF	HFT	CHN	Hefei

Sample product shipping label (not actual product label)

G4: NiPdAu
G3: Matte Sn



G4

TEXAS INSTRUMENTS
 MADE IN: Malaysia
 2DC: 20:
 MSL 2 /260C/1 YEAR SEAL DT
 MSL 1 /235C/UNLIM 03/29/04
 OPT:
 ITEM: 39
LBL: 5A (L)TO:1750

(1P) SN74LS07NSR
 (Q) 2000 (D) 0336
 (31T) LOT: 3959047MLA
 (4W) TKY (1T) 7523483SI2
 (P)
 (2P) REV: (V) 0033317
 (20L) CS0: SHE (21L) CCO:USA
 (22L) AS0: MLA (23L) ACO: MYS

Product Affected:

SN65HVD1471DGK	SN65HVD75DGKR	TCA9617DGKR	THVD1510DGK
SN65HVD1471DGKR	SN65HVD77DGK	TCA9800DGKR	THVD1510DGKR
SN65HVD1474DGK	SN65HVD77DGKR	TCA9800DGKT	THVD1511DGK
SN65HVD1474DGKR	SN65HVD78DGK	TCA9801DGKR	THVD1511DGKR
SN65HVD1477DGK	SN65HVD78DGKR	TCA9801DGKT	THVD1550DGK
SN65HVD1477DGKR	TCA4307DGKR	TCA9802DGKR	THVD1550DGKR
SN65HVD71DGK	TCA9509DGKR	TCA9802DGKT	THVD1551DGK
SN65HVD71DGKR	TCA9511ADGKR	TCA9803DGKR	THVD1551DGKR
SN65HVD72DGK	TCA9517ADGKR	TCA9803DGKT	TMUX1121DGKR
SN65HVD72DGKR	TCA9517DGKR	THVD1410DGK	TMUX1122DGKR
SN65HVD74DGK	TCA9617ADGKR	THVD1410DGKR	TMUX1123DGKR
SN65HVD74DGKR	TCA9617BDGKR	THVD1450DGK	
SN65HVD75DGK	TCA9617BDGKT	THVD1450DGKR	

Qualification Report

Approve Date 21-Oct-2021

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: <u>TCA9617ADGKR</u>	QBS Package Reference: <u>LM5008MM</u>	QBS Package Reference: <u>TCA9803DGK</u>	QBS Package Reference: <u>TPS62842DGR</u>
AC	Autoclave 121C	96 Hours	1/77/0	-	3/231/0	3/231/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0	-	3/231/0
HTOL	Life Test, 150C	300 Hours	-	-	-	3/231/0
HTSL	High Temp Storage Bake 170C	420 Hours	1/77/0	3/231/0	3/231/0	3/231/0
TC	Temperature Cycle, -65/150C	500 Cycles	1/77/0	3/231/0	3/231/0	3/231/0
UHAS T	Unbiased HAST, 130C/85%RH	96 Hours	-	3/231/0	-	-
WBP	Bond Pull	Wires	1/76/0	3/228/0	3/228/0	-
WBS	Ball Bond Shear	Wires	1/76/0	-	3/228/0	-

- QBS: Qual By Similarity

- Qual Device TCA9617ADGKR is qualified at LEVEL1-260C

- 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

Qualification Report

Approve Date 13-Jun-2021

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: <u>TCA9803DGK</u>	QBS Package Reference: <u>LM5008MM</u>	QBS Package Reference: <u>PGA308AIDGSR</u>	QBS Package Reference: <u>TPS62842DGR</u>
AC	Autoclave 121C	96 Hours	3/231/0	-	-	3/231/0
CDM	ESD - CDM	1500 V	3/9/0	-	-	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0	-	3/231/0
HTOL	Life Test, 150C	300 Hours	-	-	-	3/231/0
HTSL	High Temp Storage Bake 170C	420 Hours	3/231/0	3/231/0	-	3/231/0
SD	Solderability	PB-Free Solder	-	-	3/66/0	-
TC	Temperature Cycle, -65C/150C	500 Cycles	3/231/0	3/231/0	3/231/0	3/231/0
UHAS	Unbiased HAST,	96 Hours	-	3/231/0	3/231/0	-

Type	Test Name / Condition	Duration	Qual Device: <u>TCA9803DGK</u>	QBS Package Reference: <u>LM5008MM</u>	QBS Package Reference: <u>PGA308AIDGSR</u>	QBS Package Reference: <u>TPS62842DGR</u>
T	130C/85%RH					
WBP	Bond Pull	Wires	3/228/0	3/228/0	3/228/0	-
WBS	Ball Bond Shear	Wires	3/228/0	-	-	-

- QBS: Qual By Similarity

- Qual Device TCA9803DGK is qualified at LEVEL1-260C

- 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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