TEXAS INSTRUMENTS 12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20211107000.1A
Qualification of HFTF as additional Assembly site for select devices
Change Notification / Sample Request

Date: January 14, 2022
To: TOKYO ELECTRON DEVICE (DSTR) PCN

Dear Customer:

Revision A is to update the description of change to include a change in mold compound for the proposed change.

This is an announcement of a change to a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

Texas Instruments requires acknowledgement of receipt of this notification within **30** days of the date of this notice. Lack of acknowledgement of this notice within 30 days constitutes acceptance of the change. If samples or additional data are required, requests must be received within **30 days** of this notification.

The changes discussed within this PCN will not take effect any earlier than the proposed first ship date on Page 3 of this notification, unless customer agreement has been reached on an earlier implementation of the change.

This notice does not change the end-of-life status of any product. Should product affected be on a previously issued product withdrawal/discontinuance notice, this notification does not extend the life of that product or change the life time buy offering/discontinuance plan.

For questions regarding this notice or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the PCN Team (PCN_ww_admin_team@list.ti.com). For sample requests or sample related questions, contact your local Field Sales Representative.

Sincerely,

PCN Team
SC Business Services

20211107000.1A
Change Notification / Sample Request
Attachments

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, these are the devices that you have purchased within the past twenty-four (24) months. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
TCA9517DGKR	null
TCA9801DGKT	null
THVD1510DGK	null
SN65HVD75DGKR	null
TCA9509DGKR	null
TCA9617ADGKR	null
THVD1450DGKR	null
TCA9617BDGKR	null
SN65HVD72DGKR	null
TCA9517ADGKR	null
TCA9803DGKT	null
THVD1551DGKR	null
SN65HVD1477DGKR	null
TCA9800DGKR	null
THVD1410DGKR	null
SN65HVD78DGK	null
SN65HVD78DGKR	null
SN65HVD74DGKR	null
TCA4307DGKR	null
TCA9803DGKR	null
SN65HVD1477DGK	null
TCA9801DGKR	null
THVD1510DGKR	null
THVD1550DGK	null
THVD1550DGKR	null
TMUX1122DGKR	null
TMUX1121DGKR	null
SN65HVD77DGK	null
SN65HVD72DGK	null
TCA9800DGKT	null
TCA9802DGKR	null
TCA9802DGKT	null
SN65HVD77DGKR	null

Technical details of this Product Change follow on the next page(s).

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:

☒	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 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 ***standard part number***, for the devices shown below. For example; ***SN65HVD71DGK*** – 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

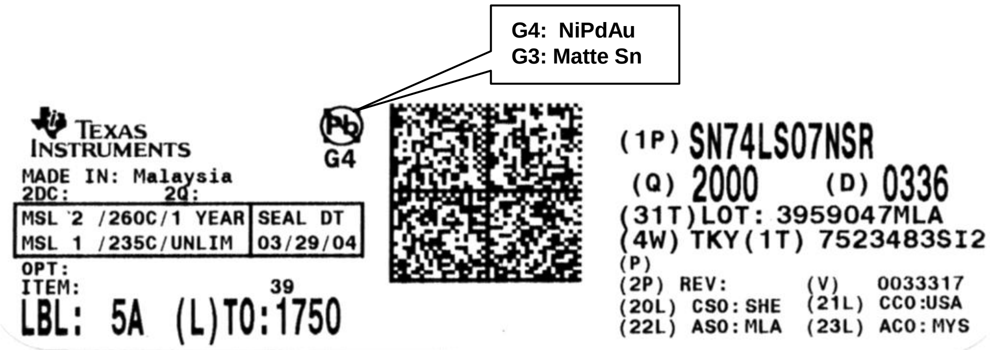
Checked boxes indicate the status of environmental ratings following implementation of this change. If below boxes are checked, there are no changes to the associated environmental ratings.

RoHS	REACH	Green Status	IEC 62474
☒ 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
ASESH	ASH	CHN	Shanghai
HFTF	HFT	CHN	Hefei

Sample product shipping label (not actual product label)



G4: NiPdAu
G3: Matte Sn

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

Pb G4

(1P) SN74LS07NSR
(Q) 2000 (D) 0336
(31T)LOT: 3959047MLA
(4W) TKY(1T) 7523483SI2
(P)
(2P) REV: (V) 0033317
(20L) CSO:SHE (21L) CCO:USA
(22L) ASO: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: TCA9617ADGKR	QBS Package Reference: LM5008MM	QBS Package Reference: TCA9803DGK	QBS Package Reference: TPS62842DGR
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
UHAST	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: TCA9803DGK	QBS Package Reference: LM5008MM	QBS Package Reference: PGA308AIDGSR	QBS Package Reference: TPS62842DGR
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: TCA9803DGK	QBS Package Reference: LM5008MM	QBS Package Reference: PGA308AIDGSR	QBS Package Reference: TPS62842DGR
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

For questions regarding this notice, e-mails can be sent to the contacts shown below or your local Field Sales Representative.

Location	**E-Mail**
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
WW PCN Team	PCN_ww_admin_team@list.ti.com

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