

<b>PCN Number:</b>	20210316001.1		<b>PCN Date:</b>	Mar 25 2021													
<b>Title:</b>	Qualification of HFTF as an additional assembly site for the TPS61169DCKR																
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>	<b>Dept:</b>	Quality Services														
<b>Proposed 1<sup>st</sup> Ship Date:</b>	Jun 21 2021	<b>Estimated Sample Availability:</b>	Date provided at sample request														
<b>Change Type:</b>																	
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Site												
<input checked="" 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 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												
<b>PCN Details</b>																	
<b>Description of Change:</b>																	
<p>Texas Instruments Incorporated is announcing the qualification of HFTF as an alternate Assembly site for the TPS61169DCKR. Construction differences with the current assembly site are as follows:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>TFME</th> <th>HFTF</th> </tr> </thead> <tbody> <tr> <td>Mold Compound</td> <td>SID#R-07</td> <td><b>SID# R-27</b></td> </tr> <tr> <td>Bond Wire, diameter</td> <td>Au, 0.8 mils</td> <td><b>Cu, 0.8 mils</b></td> </tr> <tr> <td>Lead Finish</td> <td>NiPdAu</td> <td><b>Matte Sn</b></td> </tr> </tbody> </table> <p>Upon expiry of this PCN TI will combine lead free solutions in a single <b><u>standard part number</u></b>, for this device. For example; <b><u>TPS61169DCKR</u></b> – can ship with both Matte Sn and NiPdAu.</p> <p>Example:</p> <ul style="list-style-type: none"> <li>– Customer order for 7500 units of TPS61169DCKR with 2500 units SPQ (Standard Pack Quantity per Reel).</li> <li>– TI can satisfy the above order in one of the following ways. <ul style="list-style-type: none"> <li>I. 3 Reels of NiPdAu finish.</li> <li>II. 3 Reels of Matte Sn finish</li> <li>III. 2 Reels of Matte Sn and 1 reel of NiPdAu finish.</li> <li>IV. 2 Reels of NiPdAu and 1 reel of Matte Sn finish.</li> </ul> </li> </ul>							TFME	HFTF	Mold Compound	SID#R-07	<b>SID# R-27</b>	Bond Wire, diameter	Au, 0.8 mils	<b>Cu, 0.8 mils</b>	Lead Finish	NiPdAu	<b>Matte Sn</b>
	TFME	HFTF															
Mold Compound	SID#R-07	<b>SID# R-27</b>															
Bond Wire, diameter	Au, 0.8 mils	<b>Cu, 0.8 mils</b>															
Lead Finish	NiPdAu	<b>Matte Sn</b>															
<b>Reason for Change:</b>																	
Supply continuity																	
<b>Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):</b>																	
None																	
<b>Anticipated impact on Material Declaration</b>																	
<input type="checkbox"/>	No Impact to the Material Declaration	<input checked="" type="checkbox"/>	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 at the site link below <a href="http://www.ti.com/quality/docs/materialcontentsearch.tsp">http://www.ti.com/quality/docs/materialcontentsearch.tsp</a>														

**Changes to product identification resulting from this PCN:**

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
TFME	NFM	CHN	Economic Development Zone
<b>HFTF</b>	<b>HFT</b>	<b>CHN</b>	<b>Hefei</b>

Sample product shipping label (not actual product label)

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) SN74VC2G04DCKR  
(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

G3: Matte Sn  
G4: NiPdAu

**Product Affected:**

TPS61169DCKR



TI Information  
Selective Disclosure

**Qualification Results**

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

Type	Test Name / Condition	Duration	Qual Device: TPS61169DCKR	QBS Product Reference: TPS61169DCK	QBS Package Reference: SN74VC1G17DCKR	QBS Package Reference: SN74VC2G04DCKR	QBS Process Reference: TPS62110RSA
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	Pass	Pass	-
HBM	ESD - HBM	4000 V	-	1/3/0	-	-	-
CDM	ESD - CDM	1500 V	1/3/0	1/3/0	-	-	-
LU	Latch-up	(per JESD78)	-	1/6/0	-	-	-
HTOL	Life Test, 140C	480 Hours	-	-	-	-	3/390/0
HTOL	Life Test, 150C	300 Hours	-	-	3/240/0	3/240/0	-
ELFR	Early Life Failure Rate, 140C	48 Hours	-	-	-	-	3/1881/0
HTSL	High Temp Storage Bake, 170C	420Hours	-	-	3/231/0	3/231/0	3/231/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	3/240/0	3/240/0	3/231/0
AC	Autoclave 121C	96 Hours	-	-	3/231/0	3/231/0	3/231/0
TC	Temperature Cycle -65C/150C	500 Cycles	-	-	3/231/0	3/231/0	3/231/0
TS	Thermal Shock, -65/150C	500 Cycles	-	-	-	-	3/231/0
LI	Lead Fatigue	Leads	-	-	3/66/0	3/66/0	-
LI	Lead Pull to Destruction	Leads	-	-	3/27/0	3/27/0	-
SD	Solderability	Pb Free Solder	-	-	3/66/0	3/66/0	-
SD	Solderability	Pb Solder	-	-	3/66/0	3/66/0	-
WBP	Bond Pull	Wires	-	-	3/228/0	3/228/0	-
WBS	Ball Bond Shear	76 balls, 3 units min	-	-	3/228/0	3/228/0	-
FLAM	Flammability (UL 94V-0)	Method A/UL 94V-0	-	-	3/15/0	3/15/0	-

- QBS: Qual By Similarity
- Qual Device TPS61169DCKR is qualified at LEVEL1-260CG
- 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.

<b>Location</b>	<b>E-Mail</b>
USA	<a href="mailto:PCNAmericasContact@list.ti.com">PCNAmericasContact@list.ti.com</a>
Europe	<a href="mailto:PCNEuropeContact@list.ti.com">PCNEuropeContact@list.ti.com</a>
Asia Pacific	<a href="mailto:PCNAsiaContact@list.ti.com">PCNAsiaContact@list.ti.com</a>
WW PCN Team	<a href="mailto:PCN_ww_admin_team@list.ti.com">PCN_ww_admin_team@list.ti.com</a>

### **IMPORTANT NOTICE AND DISCLAIMER**

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES “AS IS” AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI’s products are provided subject to TI’s Terms of Sale ([www.ti.com/legal/termsofsale.html](http://www.ti.com/legal/termsofsale.html)) or other applicable terms available either on [ti.com](http://ti.com) or provided in conjunction with such TI products. TI’s provision of these resources does not expand or otherwise alter TI’s applicable warranties or warranty disclaimers for TI products.