



**PCN# 20130613001**  
**Add Matte Sn as Alternative Lead Finish for Selected SOIC Device(s)**  
**Change Notification / Sample Request**

**Date:** 6/27/2013  
**To:** MOUSER PCN

Dear Customer:

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.

We request you acknowledge 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 you require samples or additional data to support your evaluation, please request within 30 days.

The changes discussed within this PCN will not take effect any earlier than **90** days from the date of this notification, unless customer agreement has been reached on an earlier implementation of the change. This notification period is per TI's standard process.

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, contact your local Field Sales Representative or the PCN Manager ([PCN\\_ww\\_admin\\_team@list.ti.com](mailto:PCN_ww_admin_team@list.ti.com)).

Sincerely,

PCN Team  
SC Business Services  
Phone: +1(214) 480-6037  
Fax: +1(214) 480-6659

**20130613001**  
**Attachment: 1**

**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.

<b>DEVICE</b>	<b>CUSTOMER PART NUMBER</b>
TPS54227DDA	null
TPS54229DDA	null
TPS54239DDA	null
TPS54239EDDA	null
TPS54327DDA	null
TPS54327DDAR	null
TPS54328DDA	null
TPS54329DDA	null
TPS5432DDA	null
TPS54335DDA	null
TPS54336DDA	null
TPS54339DDA	null
TPS54427DDA	null
TPS54428DDA	null
TPS54527DDA	null
TPS54528DDA	null
TPS54531DDA	null
TPS54627DDA	null
TPS54628DDA	null
TPS56428DDA	null
TPS56528DDA	null
TPS7A7001DDA	null

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

<b>PCN Number:</b>	20130613001		<b>PCN Date:</b>	06/27/2013							
<b>Title:</b>	Add Matte Sn as Alternative Lead Finish for Selected SOIC Device(s)										
<b>Customer Contact:</b>	PCN Manager	Phone:	+1(214)480-6037		Dept:						
<b>Proposed 1<sup>st</sup> Ship Date:</b>		09/27/2013	<b>Estimated Sample Availability:</b>		Date provided at sample request						
<b>Change Type:</b>											
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process	<input checked="" type="checkbox"/>	Assembly Materials						
<input type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification	<input type="checkbox"/>	Mechanical Specification						
<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process						
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material	<input type="checkbox"/>	Wafer Bump Process						
<input type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials	<input type="checkbox"/>	Wafer Fab Process						
<b>PCN Details</b>											
<b>Description of Change:</b>											
<p>Texas Instruments is improving flexibility of supply with the qualification of Matte Sn finish as an additional Lead Free (Pb Free) Leadframe finish for selected SOIC devices.</p> <p>Upon expiry of this PCN TI will combine lead free solutions in a single <b><u>standard part number</u></b>, for example; <b><u>SN1101002DDAR</u></b> – can ship with either Matte Sn or NiPdAu leadframe finish.</p> <p>Example:</p> <ul style="list-style-type: none"> <li>– Customer order for 5000units of SN1101002DDAR 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. 2 Reels of NiPdAu finish.</li> <li>II. 2 Reels of Matte Sn finish</li> <li>III. 1 Reels of Matte Sn and 1 reel of NiPdAu finish.</li> <li>IV. 1 Reels of NiPdAu and 1 reel of Matte Sn finish.</li> </ul> </li> </ul> <p>Assembly differences are shown in the following table:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 30%; text-align: center;"><b>From</b></th> <th style="width: 30%; text-align: center;"><b>To</b></th> </tr> </thead> <tbody> <tr> <td><b>Leadframe Finish</b></td> <td style="text-align: center;">NiPdAu</td> <td style="text-align: center;">NiPdAu or Matte Sn</td> </tr> </tbody> </table> <p><b>Reason for Change:</b></p> <p>Continuity of supply. Improve customer service with supply flexibility and improved lead times.</p> <p><b>Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):</b></p> <p>TI does not anticipate any negative impact from this change.</p>							<b>From</b>	<b>To</b>	<b>Leadframe Finish</b>	NiPdAu	NiPdAu or Matte Sn
	<b>From</b>	<b>To</b>									
<b>Leadframe Finish</b>	NiPdAu	NiPdAu or Matte Sn									

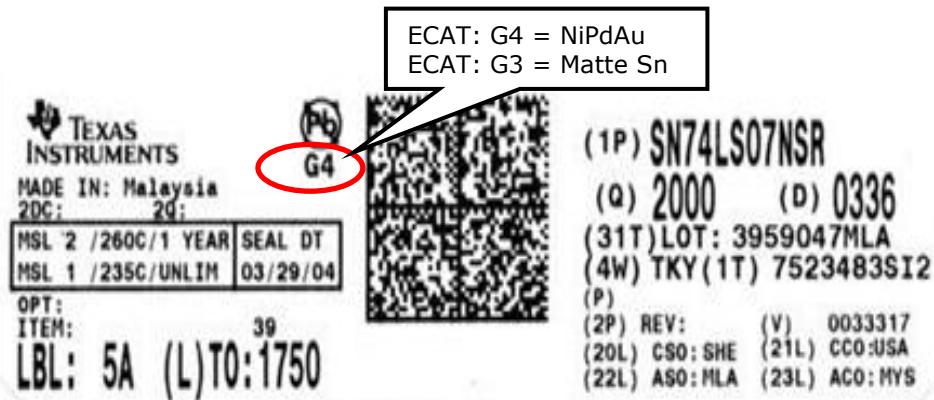
**Changes to product identification resulting from this PCN:**

**Sample Product Shipping Label (not actual product label)**

Assembly Site

ASEH	Assembly Site Origin (22L)	ASO:ASH	ECAT:G4
ASEH	Assembly Site Origin (22L)	ASO:ASH	ECAT:G3

**Sample product shipping label to show code location only (not actual product label)**



**Product Affected:**

HPA01069DDAR	TPS54229DDA	TPS54329EDDAR	TPS54527DDA
HPA01123DDAR	TPS54229DDAR	TPS5432DDA	TPS54527DDAR
SN1101002DDAR	TPS54229EDDA	TPS5432DDAR	TPS54528DDA
SN1101003DDAR	TPS54229EDDAR	TPS54334DDA	TPS54528DDAR
SN1101004DDAR	TPS54239DDA	TPS54335DDA	TPS54531DDA
SN1101005DDAR	TPS54239DDAR	TPS54335DDAR	TPS54627DDA
SN1106039DDAR	TPS54239EDDA	TPS54336DDA	TPS54627DDAR
SN1106041DDAR	TPS54239EDDAR	TPS54336DDAR	TPS54628DDA
SN1106042DDAR	TPS54327DDA	TPS54339DDA	TPS54628DDAR
SN1110024DDAR	TPS54327DDAR	TPS54339DDAR	TPS56428DDA
SN1208017DDAR	TPS54328DDA	TPS54339EDDA	TPS56428DDAR
SN1208022DDAR	TPS54328DDAR	TPS54339EDDAR	TPS56528DDA
TPS54227DDA	TPS54328RDDAR	TPS54427DDA	TPS56528DDAR
TPS54227DDAR	TPS54329DDA	TPS54427DDAR	TPS7A7001DDA
TPS54228DDA	TPS54329DDAR	TPS54428DDA	
TPS54228DDAR	TPS54329EDDA	TPS54428DDAR	

## **Qualification Data: Approved 06/11/2013**

This qualification has been specifically developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications.

### **Qual Vehicle #1: TPS54227DDA (MSL 2-260C)**

#### **Package Construction Details**

Assembly Site:	ASESH	Mold Compound:	EN2000509
# Pins-Designator, Family:	8DDA, HSOIC	Mount Compound:	EY1000063
Leadframe (Finish, Base):	Matte SN, Cu	Bond Wire:	2.0 Mil Dia., Cu

**Qualification:**  **Plan**  **Test Results**

<b>Reliability Test</b>	<b>Conditions</b>	<b>Sample Size / Fail</b>		
		Lot#1	Lot#2	Lot#3
**Autoclave 121C	121C, 2 atm (96 hrs)	77/0	77/0	77/0
**Temp Cycle	-65C/+150C (500 Cycles)	77/0	77/0	77/0
Manufacturability (Assembly)	Per mfg. Site specification	PASS	PASS	PASS
Moisture Sensitivity	(level 2 @ 260C peak +5/-0C)	12/0	12/0	12/0

Notes: \*\* Preconditioning sequence: Level 2-260C

### **Qual Vehicle #2: TPS54527DDA (MSL 2-260C)**

#### **Package Construction Details**

Assembly Site:	ASESH	Mold Compound:	EN2000509
# Pins-Designator, Family:	8DDA, HSOIC	Mount Compound:	EY1000063
Leadframe (Finish, Base):	Matte SN, Cu	Bond Wire:	2.0 Mil Dia., Cu

**Qualification:**  **Plan**  **Test Results**

<b>Reliability Test</b>	<b>Conditions</b>	<b>Sample Size / Fail</b>		
		Lot#1	Lot#2	Lot#3
**Autoclave 121C	121C, 2 atm (96 hrs)	77/0	77/0	77/0
**High Temp. Storage Bake	170C (420 hrs)	77/0	77/0	77/0
**Temp Cycle	-65C/+150C (500 Cycles)	77/0	77/0	77/0
Solderability	Steam age, 8 hours; PB-Free solder	22/0	22/0	22/0
Manufacturability (Assembly)	Per mfg. Site specification	PASS	PASS	PASS
Moisture Sensitivity	(level 2 @ 260C peak +5/-0C)	12/0	12/0	12/0

Notes: \*\* Preconditioning sequence: Level 2-260C

For questions regarding this notice, e-mails can be sent to the regional 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>
Japan	<a href="mailto:PCNJapanContact@list.ti.com">PCNJapanContact@list.ti.com</a>