12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20140410000
Design Revision (NBTI Fix for Select TPS40055x Devices)
Change Notification / Sample Request

Date: 4/14/2014
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).

Sincerely,

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

20140410000
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.

DEVICE	CUSTOMER PART NUMBER
TPS40055MPWPREP	null

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

PCN Number:	20140410000	PCN Date:	04/14/2014
Title:	Design Revision (NBTI Fix for Select TPS40055x Devices)		
Customer Contact:	PCN Manager	Phone: +1(214)480-6037	Dept: Quality Services
Proposed 1st Ship Date:	07/14/2014	Estimated Sample Availability:	Date provided at sample request

Change Type:					
☐	Assembly Site	☐	Assembly Process	☐	Assembly Materials
☒	Design	☐	Electrical Specification	☐	Mechanical Specification
☐	Test Site	☐	Packing/Shipping/Labeling	☐	Test Process
☐	Wafer Bump Site	☐	Wafer Bump Material	☐	Wafer Bump Process
☐	Wafer Fab Site	☐	Wafer Fab Materials	☐	Wafer Fab Process
		☐	Part number change		

PCN Details

Description of Change:

This notification is to inform of a design revision for select TPS40055x devices. This design change does not affect the device's guaranteed datasheet specifications or electrical performance. The affected devices are listed in the "Product Affected" section.

The table below describes changes that were made:

Description of Change	Benefit of Change
Re-design to remove sensitivity over time to negative bias temperature instability (NBTI) under high temperature conditions.	Improve reliability

Reason for Change:

Improve reliability

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

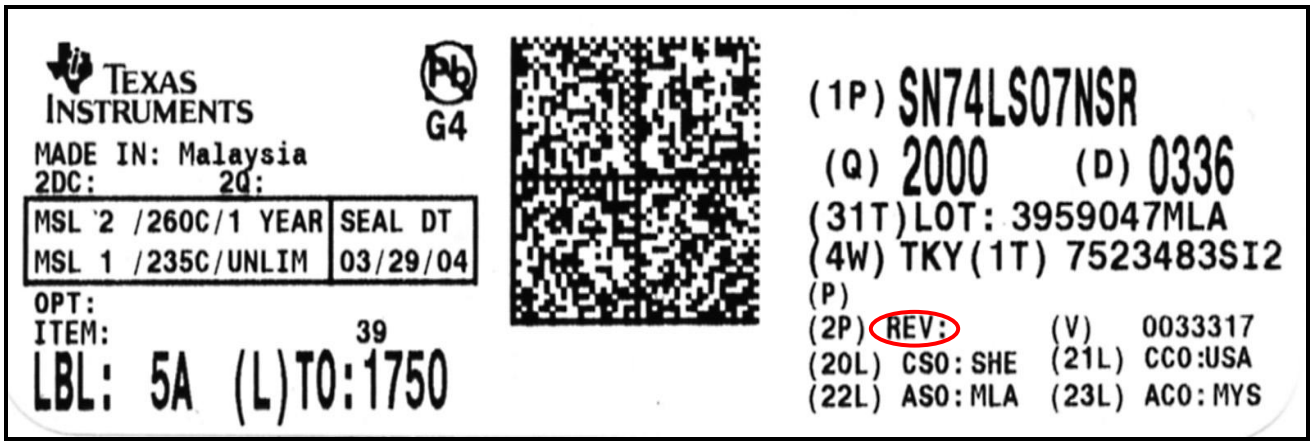
None

Changes to product identification resulting from this PCN:

Die Rev designator will change as shown in table & sample label below:

Current	New
Die Rev [2P]	Die Rev [2P]
A	C

Sample product shipping label to indicate die rev location (**not actual product label**)



Product Affected:			
MPL2674QPWPR	TPS40055MPWPREP	TPS40055MPWPREPG4	V62/05617-01XE

Qualification Data: Approved 2/14/2014

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: TPS40055PWP

Package/Die Construction Details

Assembly Site:	TI TAIWAN	# Pins-Designator, Family:	16-PWP, HTSSOP
Fab Process:	LBC4	Die Revision:	C

Qualification: ☐ **Plan** ☒ **Test Results**

Reliability Test	Conditions	Sample Size (PASS/FAIL)
Electrical Characterization, side by side	Per Datasheet Parameters	Pass

Qual Vehicle 2: TPS40057PWP

Package/Die Construction Details

Assembly Site:	TI TAIWAN	# Pins-Designator, Family:	16-PWP, HTSSOP
Fab Process:	LBC4	Die Revision:	C

Qualification: ☐ **Plan** ☒ **Test Results**

Reliability Test	Conditions	Sample Size (PASS/FAIL)
Latch-up	(per JESD78)	6/0
Electrical Characterization, side by side	Per Datasheet Parameters	Pass
High Temp Operating Life	125C (1000 Hrs)	80/0
ESD HBM	1000V	3/3 **
ESD CDM	250V	3/0

** This device fails ESD-HBM due to leakage on the SW pin. The device was released in 2004 with an HBM rating of 1KV. Several SW leakage tests were added to the final test program since RTM. The new SW leakage tests are failing now both on the old and new die rev.

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

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
Japan	PCNJapanContact@list.ti.com