12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20180509001.1
PO Thickness change on the LBC7 process node
Change Notification / Sample Request

Date: May 18, 2018
To: TOKYO ELECTRON DEVICE (DSTR) 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).

PCN Team
SC Business Services

20180509001.1
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
TPS562201DDCR	null
TPS563201DDCR	null
TPS562201DDCT	null
TPS562208DDCR	null
TPS563208DDCR	null
TPS7A9101DSKT	null
TPS7A9001DSKT	null
TPS563201DDCT	null

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

PCN Number:	20180509001.1	**PCN Date:**	May 18, 2018
Title:	LBC7 change total PO thickness from 24kA to 39kA		
Customer Contact:	PCN Manager	**Dept:**	Quality Services
Proposed 1st Ship Date:	Aug 18, 2018	**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 change notification is to announce a total PO Thickness change from 24kA to 39kA by increasing the 2nd Oxide Teos thickness from 3kA to 18kA on the LBC7 process node for the selected devices listed in the "Product Affected" section.

Change From	Change To
13kA HDP Oxide + 3kA Teos Oxide + 8kA Nitride passivation	13kA HDP Oxide + 18kA Teos Oxide + 8kA Nitride passivation

Qual details are provided in the Qual Data Section.

Reason for Change:

Continuity of supply.

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

None

Changes to product identification resulting from this PCN:

None

Product Affected:

TPS53605DSQT	TPS562208DDCT	TPS563208DDCR	TPS7A9101DSKT
TPS562201DDCR	TPS563201DDCR	TPS7A9001DSKR	TPS7A9201DSKR
TPS562201DDCT	TPS563201DDCT	TPS7A9001DSKT	TPS7A9201DSKT
TPS562208DDCR	TPS563201EDRLT	TPS7A9101DSKR	

Qualification Report

LBC7 - Thick TEOS at PO 2nd OX DEP

Approve Date 9-April-2018

Product Attributes

Attributes	Qual Device: TPS563201DDCR
Assembly Site	JCET
Package Family	SOT-23-T
Wafer Fab Supplier	RFAB
Wafer Process	LBC7
Flammability Rating	UL 94 V-0

- Qual Devices qualified at LEVEL1-NACG: Devices TPS563201DDCR

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: TPS563201DDCR
HAST	Biased HAST, 130C/85%RH	192 Hours	3/231/0
HTSL	High Temp. StorageBake, 170C	420 Hours	3/231/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	3/Pass
TC	Temperature Cycle, -65/150C	750 Cycles	3/231/0

- 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 regional contacts shown below, or you can contact 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