



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20180927003.1
PO Thickness change on the LBC7 process node
Change Notification / Sample Request

Date: October 15, 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

20180927003.1
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
TPS564201DDCR	null
TPS27081ADDCR	null
TPS51206DSQR	null
TPS51206DSQT	null
TPS62160DGKT	null
TPS62160DSGT	null
TPS62177DQCT	null
ULN2003LVDR	null
TPS51916RUKT	null
TPS563200DDCR	null
TPS62170DSGT	null
TPS563219DDFT	null
TPS62163DSGT	null
TPS62172DSGT	null
SN1706011DDCR	null
TPS543C20RVFT	null
TPL0102-100PWR	null
TPL7407LDR	null
TPS54202DDCR	null
TPS54202DDCT	null
TPS54302DDCT	null
TPS548D22RVFR	null
TPS562200DDCR	null
TPS562200DDCT	null
TPS562209DDCR	null
TPS62160DSGR	null
TPS62172DSGR	null
TPS7A8801RTJT	null
TPS7A8901RTJT	null
TPS51362RVER	null
TPS51363RVER	null
TPS51367RVER	null
TPS51716RUKR	null
TPS54202HDDCT	null
TS3A5223RSWR	null
TPS7A8801RTJR	null
TPS564201DDCT	null
LP5912-3.3DRVR	null
TPS562210DDFR	null
SN1706011DDCT	null
TPS54302DDCR	null
TPS563208DDCT	null
TPS563210DDFR	null
TPS563210DDFT	null
TPS62173DSGR	null
TPS62173DSGT	null
ULN2003V12PWR	null
LP5912-3.3DRVVT	null
TPS51716RUKT	null
TPS549D22RVFR	null
TPS51362RVET	null
TPL0202-10MRTER	null
TPS543B20RVFR	null
TPS562209DDCT	null
TPS563210ADDFR	null
TPS62175DQCR	null
ULN2003LVPWR	null
TPS562210DDFT	null

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

PCN Number:	20180927003.1		PCN Date:	Oct. 15, 2018
Title:	LBC7 change total PO thickness from 24kA to 39kA			
Customer Contact:	PCN Manager		Dept:	Quality Services
Proposed 1st Ship Date:	Jan. 15, 2019		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 2 nd 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:				
CSD97370Q5M	SN1602018RVFR	TPS51716RUKT	TPS563208DDCT	
DRV10863DSNR	SN1602018RVFT	TPS51916RUKT	TPS563209DDCR	
DRV777DR	SN1607023RVER	TPS53211ARGTR	TPS563209DDCT	
DRV777PWR	SN1611045DDCR	TPS53211ARGTT	TPS563210ADDFR	
FX003	SN1611045DDCT	TPS53211RGTR	TPS563210ADDFT	
FX004	SN1612030DDCR	TPS53211RGTT	TPS563210DDFR	
FX026	SN1612030DDCT	TPS53603ADRGR	TPS563210DDFT	
HPA02240RVER	SN1701036DSNR	TPS53603ADRGT	TPS563219ADDFR	
LP5912-0.9DRVR	SN1704026DDCR	TPS53603DRGR	TPS563219ADDFT	
LP5912-0.9DRVT	SN1704026DDCT	TPS53603DRGT	TPS563219DDFR	
LP5912-1.1DRVR	SN1706011DDCR	TPS53819ARGTR	TPS563219DDFT	
LP5912-1.1DRVT	SN1706011DDCT	TPS53819ARGTT	TPS564201DDCR	
LP5912-1.2DRVR	SN1708041DDCR	TPS53819RGTR	TPS564201DDCT	
LP5912-1.2DRVT	SN1708041DDCT	TPS53819RGTT	TPS564208DDCR	
LP5912-1.5DRVR	SN1709020DDCR	TPS54200DDCR	TPS564208DDCT	
LP5912-1.5DRVT	SN1709020DDCT	TPS54200DDCT	TPS59367RVER	
LP5912-1.8DRVR	SN1711023DDCR	TPS54202DDCR	TPS59367RVET	
LP5912-1.8DRVT	SN1711023DDCT	TPS54202DDCT	TPS62160DGKR	

LP5912-2.5DRVR	SN25027Y	TPS54202HDDCR	TPS62160DGKT
LP5912-2.5DRVT	SN62160DSGR	TPS54202HDDCT	TPS62160DSGR
LP5912-2.8DRVR	SN62160DSGT	TPS54302DDCR	TPS62160DSGT
LP5912-2.8DRVT	TLC59731D	TPS54302DDCT	TPS62161DSGR
LP5912-3.0DRVR	TLC59731DR	TPS543B20RVFR	TPS62161DSGT
LP5912-3.0DRVT	TLC5973D	TPS543B20RVFT	TPS62162DSGR
LP5912-3.3DRVR	TLC5973DR	TPS543C20RVFR	TPS62162DSGT
LP5912-3.3DRVT	TPL0102-100PWR	TPS543C20RVFT	TPS62163DSGR
PLM74610	TPL0102-100RUCR	TPS546C20ARVFR	TPS62163DSGT
PLM74611DGKR	TPL0102DSYRUCR	TPS546C20ARVFT	TPS62170DSGT
PLP5912-0.9DRVT	TPL0202-10MRTER	TPS546C20RVFR	TPS62171DSGR
PLP5912-1.2DRVT	TPL0202-10RUCR	TPS546C20RVFT	TPS62171DSGT
PLP5912-1.7DRVT	TPL7407LDR	TPS546C23RVFR	TPS62172DSGR
PLP5912-3.3DRVT	TPL7407LPWR	TPS546C23RVFT	TPS62172DSGT
PLP5912-4.5DRVT	TPS27081ADDCR	TPS546C23ZRVFR	TPS62173DSGR
PLP5912-5.0DRVT	TPS27082LDDCR	TPS546C23ZRVFT	TPS62173DSGT
PTPS54202DDCR	TPS40310RHFR	TPS548B22RVFR	TPS62175DQCR
PTPS54202DDCT	TPS40310RHFT	TPS548B22RVFT	TPS62175DQCT
PTPS562201DDCR	TPS40310RHLR	TPS548D21RVFR	TPS62177DQCR
PTPS562201DDCT	TPS40310RHLT	TPS548D21RVFT	TPS62177DQCT
PTPS563201DDCR	TPS40610RHFR	TPS548D22RVFR	TPS65291PWPR
PTPS563201DDCT	TPS40610RHFT	TPS548D22RVFT	TPS65291PWPT
PTPS564208DDCR	TPS40610RHLR	TPS549B22RVFR	TPS7A8701RTJR
PTPS564208DDCT	TPS40610RHLT	TPS549B22RVFT	TPS7A8701RTJT
PTPS65291PWPR	TPS51206DSQR	TPS549D22RVFR	TPS7A8801RTJR
SM74611KTTR	TPS51206DSQR-P	TPS549D22RVFT	TPS7A8801RTJT
SN1306023RUKR	TPS51206DSQT	TPS549D23RVFT	TPS7A8901RTJR
SN1308008RUKR	TPS51216RUKR	TPS549D23RVFR	TPS7A8901RTJT
SN1311035RVER	TPS51216RUKT	TPS549D23RVFT	TPS7A9101DRBT
SN1409027RVER	TPS51219RTER	TPS562200DDCR	TPSM846C24MOLR
SN1409030RUKR	TPS51219RTET	TPS562200DDCT	TS3A5223RSWR
SN1501019ADDCR	TPS51362RVER	TPS562209DDCR	TS3USBA225RUTR
SN1501019ADDCT	TPS51362RVET	TPS562209DDCT	TX125PWR
SN1501019DDCR	TPS51363RVER	TPS562210ADDFR	TX125YS
SN1501019DDCT	TPS51363RVET	TPS562210ADDFT	ULN2003LVDR
SN1501020DDCR	TPS51367RVER	TPS562210DDFR	ULN2003LVPW
SN1501020DDCT	TPS51367RVER-P	TPS562210DDFT	ULN2003LVPWR
SN1504025DDCR	TPS51367RVET	TPS562219ADDFR	ULN2003V12DR
SN1504025DDCT	TPS51418RVER	TPS562219ADDFT	ULN2003V12PWR
SN1504026DDCR	TPS51418RVET	TPS562219DDFR	XCSD97370Q5M
SN1504026DDCT	TPS51518RUKR	TPS562219DDFT	XDF543C20RVFT
SN1602003RVFR	TPS51518RUKT	TPS563200DDCR	XPS543B20RVFT
SN1602003RVFT	TPS51716RUKR	TPS563200DDCT	XPS543C20RVFR

Qualification Report

Miho: LBC7 - Thick TEOS at PO 2nd OX DEP

Approve Date 6-September-2018

Product Attributes

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

- Qual Devices qualified at LEVEL 1-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. Storage Bake, 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

Qualification Report

FFAB: LBC7 - Thick TEOS at PO 2nd OX DEP

Approve Date 10-September-2018

Product Attributes

Attributes	Qual Device: TPS62175DQCR	Qual Device: TPS62177DQCR
Assembly Site	CLARK	CLARK
Package Family	WSON	WSON
Wafer Fab Supplier	FFAB	FFAB
Wafer Process	LBC7	LBC7
Flammability Rating	UL 94 V-0	UL 94 V-0

- Qual Devices qualified at LEVEL 2-NACG: Devices TPS62175DQCR and TPS62177DQCR

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: TPS62175DQCR	Qual Device: TPS62177DQCR
HAST	Biased HAST, 130C/85%RH	192 Hours	3/231/0	3/231/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	3/231/0	3/231/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	3/Pass	3/Pass
TC	Temperature Cycle, -65/150C	750 Cycles	3/231/0	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