

PCN# 20190813001.1 Qualification of additional Fab site (RFAB) and Assembly site (MLA and CDAT) options for select LBC7 devices Change Notification / Sample Request

The PCN is being <u>re-sent as a replacement</u> due to a possible system processing error. The TI systems indicate the PCN notification was issued successfully, however every effort is being made to ensure customers are notified of the change. The PCN date has been updated to reflect the most recent notification.

Date:August 28, 2019To: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.

Texas Instruments requires acknowledgement of 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 samples or additional data are required, requests must be received within **30 days** of this notification.

The changes discussed within this PCN will not take effect any earlier than the proposed first ship date on Page 3 of this notification, unless customer agreement has been reached on an earlier implementation of the change.

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 or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the PCN Team (<u>PCN ww admin team@list.ti.com</u>). For sample requests or sample related questions, contact your local Field Sales Representative.

PCN Team SC Business Services

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
BQ76925PW	null
TPS70933DBVT	null
TPS22920YZPR	null
TPS70925DBVT	null
TPS70950DBVT	null
TPS54821RHLR	null
TPS70633DRVR	null
TPS70933DBVR	null
TPS70612DRVR	null
TPS54821RHLT	null
TPS70633DBVR	null
TPS70633DBVT	null
TPS709B50DBVT	null
TPS70950DBVR	null

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

PCN Num	ber:	201	90813001.1 PCN Date: Aug 28, 2019			Aug 28, 2019	
Title:	Title:Qualification of additional Fab site (RFAB) and Assembly site (MLA and CDAT) options for select LBC7 devices						
Customer Contact: PCN Manager			Dept			Quality Services	
Proposed 1 st Ship Date: Nov 28, 2019		v 28, 2019	Estima Availa		amp	le	Date provided at sample request.
Change Ty	Change Type:						
🛛 Assem	nbly Site			Assembly Process Assembly Materials		sembly Materials	
Desigi	n		Electrical Specification Mechanical Spec		chanical Specification		
Test S	Site		Packing/Shipping/Labeling Test Process		st Process		
Wafer	Bump Site		Wafer Bump MaterialWafer Bump Process		fer Bump Process		
🛛 Wafer	Fab Site		Wafer Fab Materials Wafer Fab Process		fer Fab Process		
	Part number change						
DCN Detaile							

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of an additional fab (RFAB) and assembly (MLA and CDAT) sites for selected devices as listed below in the product affected section.

Current Site			Α	dditional Site	
Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter
FFAB	LBC7	200 mm	RFAB	LBC7	300 mm

There are no material difference between devices currently manufactured and devices built with this manufacturing option.

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

Anticipated impact on Material Declaration

No Impact to the Material Declaration		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 from the <u>TI Eco-Info website</u> . There is no impact to the material meeting current regulatory compliance requirements with this PCN change.

Changes to product identification resulting from this PCN:

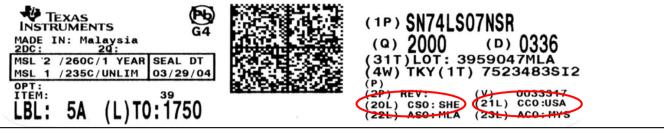
Fab Site Information:

Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
FR-BIP-1	TID	DEU	Freising
RFAB	RFB	USA	Richardson

Assembly Site Information:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
TI Taiwan	TAI	TWN	Chung Ho, New Taipei City
TI Malaysia	MLA	MYS	Kuala Lumpur
TI Clark	QAB	PHL	Angeles City

TI Chengdu	CDA	CHN	Chengdu
Sample product shipping label (not actual product label)			



Product Affected:

Group 1: Adding RF	AB as an additional site		
BQ76925RGER	TPS70625DRVR	TPS70915DBVR	TPS70933DBVR
BQ76925RGET	TPS70625DRVT	TPS70915DBVT	TPS70933DBVT
SN1602044RHLR	TPS70628DBVR	TPS70915DRVR	TPS70936DBVR
SN1602044RHLT	TPS70628DBVT	TPS70915DRVT	TPS70936DBVT
SN1603068DBVR	TPS70628DRVR	TPS70916DBVR	TPS70938DBVR
TPS54821RHLR	TPS70628DRVT	TPS70916DBVT	TPS70938DBVT
TPS54821RHLT	TPS70630DBVR	TPS70918DBVR	TPS70939DBVR
TPS70612DBVR	TPS70630DBVT	TPS70918DBVT	TPS70939DBVT
TPS70612DBVT	TPS70630DRVR	TPS70919DBVR	TPS70950DBVR
TPS70612DRVR	TPS70630DRVT	TPS70919DBVT	TPS70950DBVT
TPS70612DRVT	TPS70633DBVR	TPS70925DBVR	TPS70960DBVR
TPS70615DBVR	TPS70633DBVT	TPS70925DBVT	TPS70960DBVT
TPS70615DBVT	TPS70633DRVR	TPS70925DRVR	TPS709A30DBVR
TPS70615DRVR	TPS70633DRVT	TPS70925DRVT	TPS709A30DBVT
TPS70615DRVT	TPS70912DBVR	TPS70927DBVR	TPS709A33DBVR
TPS70618DBVR	TPS70912DBVT	TPS70927DBVT	TPS709A33DBVT
TPS70618DBVT	TPS70912DRVR	TPS70928DBVR	TPS709B33DBVR
TPS70618DRVR	TPS70912DRVT	TPS70928DBVT	TPS709B33DBVT
TPS70618DRVT	TPS709135DBVR	TPS70930DBVR	TPS709B50DBVR
TPS70625DBVR	TPS709135DBVT	TPS70930DBVT	TPS709B50DBVT
TPS70625DBVT			

Group 2: Adding RFAB and MLA Assembly as additional sitesBQ76925PWBQ76925PWR

Group 3: Adding RFAB and CDAT Assembly as additional sites		
TPS22920YZPR TPS22920YZPRB TPS22920YZPT		TPS22920YZPT

Qualification Report

Approve Date 13-August-2019

Qualification Results

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

Туре	Test Name / Condition	Duration	Qual Device: TP\$51217D\$C
ED	Electrical Characterization	Per Datasheet Parameters	Pass
HAST	Biased HAST, 130C/85%RH	96 Hours	3/231/0
AC	Autoclave, 121C	96 Hours	3/231/0
HBM	ESD - HBM	2000 V	3/9/0
CDM	ESD - CDM	500 V	3/9/0
HTOL	Life Test, 135C	635 Hours	3/231/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	3/231/0
LU	Latch-up	(per JESD78)	3/18/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/18/0

Qual Device TPS51217DSC is qualified at LEVEL2-260C

- 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 0.7 eV: 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 0.7 eV: 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
WW PCN Team	PCN ww admin team@list.ti.com

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