12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20200901001.1
Qualification of additional Fab site (RFAB) and Assembly site (CARZ) options for select LBC7 devices
Change Notification / Sample Request

Date: September 18, 2020
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.

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 (PCN_ww_admin_team@list.ti.com). For sample requests or sample related questions, contact your local Field Sales Representative.

PCN Team
SC Business Services

20200901001.1
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
TCA9555PWR	null
TCA9555RGER	null
TCA9539PWR	null
TLV62084ADSGR	null
TCA6416APWR	null
TLV62084ADSGT	null
TPS70950DRVT	null
TCA9539RGER	null
TPS70933DRVR	null
TPS70950DRVR	null
TPS70930DRVR	null
TPS70933DRVT	null

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

PCN Number:	20200901001.1	PCN Date:	Sep 18, 2020
Title:	Qualification of additional Fab site (RFAB) and Assembly site (CARZ) options for select LBC7 devices		
Customer Contact:	PCN Manager	Dept:	Quality Services
Proposed 1st Ship Date:	Dec 18, 2020	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:

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

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

For the devices in the group 2 device list below, construction differences are as follows:

	TI Clark - Current	Carsem - New
Mount compound	4207768	SID#435143

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 TI ECO website.

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 (21L)	Assembly City
TI Clark	QAB	PHL	Angeles City
Carsem	**CSZ**	**CHN**	**Jiangsu**

Sample product shipping label (not actual product label)

Product Affected:

Group 1 Device List (Adding RFAB)

TCA1116PWR	TCA9555DBT	TPS70918DRVR	TPS70933DRVR
TCA6416APWR	TCA9555PWR	TPS70918DRVT	TPS70933DRVT
TCA9539PWR	TCA9555RGER	TPS70930DRVR	TPS70950DRVR
TCA9539RGER	TPS22946YZPR	TPS70930DRVT	TPS70950DRVT
TCA9555DBR			

Group 2 Device List (Adding RFAB and CARZ AT)

TLV62084ADSGR	TLV62084ADSGT

Qualification Report

Approve Date 6-October-2010

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: TPS51217DSC
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 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 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 Results

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

Type	Test Name / Condition	Duration	Qual Device: TLV62084DSGR	QBS Process Reference: TPS2543QRTE	QBS Package Reference: TPS61021DSG	QBS Package Reference: TPS62170DSG
AC	Autoclave, 2 atm, 121C	96 Hours	-	3/231/0	-	-
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	Pass	Pass
ELFR	Early Life Failure Rate, 125C	48 Hours	-	3/2400/0	-	
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	3/231/0
HAST	Biased HAST, 110C/85%RH	264 Hours	-	3/231/0	3/231/0	-
HBM	ESD - HBM	2000 V	1/3/0	1/3/0	-	-
CDM	ESD - CDM	500 V	1/3/0	1/3/0	-	-
HTOL	Life Test, 150C	300 Hours	-	3/231/0	-	-
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	2/90/0	2/90/0
LU	Latch-up	(per JESD78)	1/6/0	1/6/0	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	3/231/0	3/231/0	-
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	-	-	3/231/0	3/231/0

- QBS: Qual By Similarity
- Qual Device TLV62084DSGR is qualified at LEVEL2-260C
-This also qualifies TLV62084ADSGR
- 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

Approve Date 25-June-2019

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: TPS70633DRVR	QBS Process Reference: TPS2543QRTE	QBS Package Reference: PGA900ARHHR
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	Pass
ELFR	Early Life Failure Rate, 125C	48 Hours	-	3/2400/0	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0	3/231/0
HBM	ESD - HBM	1000 V	1/3/0	1/3/0	-
CDM	ESD - CDM	500 V	1/3/0	1/3/0	-
HTOL	Life Test, 150C	300 Hours	-	3/231/0	3/231/0
HTSL	High Temp. Storage Bake, 175C	500 Hours	-	3/135/0	3/231/0
LU	Latch-up	(per JESD78)	1/6/0	1/6/0	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	3/231/0	3/231/0
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	-	-	3/231/0

- QBS: Qual By Similarity
- Qual Device TPS70633DRVR is qualified at LEVEL1-260C

- 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 0.7eV: 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.

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Asia Pacific	PCNAsiaContact@list.ti.com
WW PCN Team	PCN_ww_admin_team@list.ti.com

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