12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20221216008.1
Qualification of new Fab site (RFAB) using qualified Process Technology, Die Revision, and additional Assembly site & BOM options for select devices
Change Notification / Sample Request

Date: December 21, 2022
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 (TI). The details of this change are on the following pages, and are in alignment with our standard product change notification (PCN) process.

TI 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, given that samples are not built ahead of the change.

The Proposed First Ship date in this PCN letter is the earliest possible date that customers could receive the changed material. It is our commitment that the changed device will not ship before that date. If samples are requested within the 30 day sample request window, customers will still have 30-days to complete their evaluation regardless of the proposed 1st ship date.

This particular PCN is related to TI's multiyear transition plan for our two remaining factories with 150-millimeter production (DFAB in Dallas, Texas, and SFAB in Sherman, Texas). DFAB will remain open, but will focus on 200-mm production, with a smaller set of technologies. SFAB will close no earlier than 2024 and no later than 2025. As referenced in the "reason for change" below, these changes are part of our multiyear plan to transition these products to newer, more efficient manufacturing processes and technologies, underscoring our commitment to product longevity and supply continuity.

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. As always, we thank you for your continued business.

PCN Team
SC Business Services

20221216008.1
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
TPS71518DCKR	null
TPS71501DCKR	null
TPS71525DCKR	null
TPS71533DCKR	null
TPS71550DCKR	null

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

PCN Number:	20221216008.1	PCN Date:	December 21, 2022
Title:	Qualification of new Fab site (RFAB) using qualified Process Technology, Die Revision, and additional Assembly site & BOM options for select devices		
Customer Contact:	PCN Manager	Dept:	Quality Services
Proposed 1st Ship Date:	Mar 21, 2023	Sample Requests accepted until:	Jan 21, 2023*

***Sample requests received after January 21, 2023 will not be supported.**

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 a new fab & process technology (RFAB, LBC9) die revision, and Assembly site & BOM options for selected devices as listed below in the product affected section. Construction differences are noted below:

Current Fab Site			Additional Fab Site		
Current Fab Site	**Process**	**Wafer Diameter**	**Additional Fab Site**	**Process**	**Wafer Diameter**
DL-LIN	LBC4	150mm	RFAB	LBC9	300 mm

The die was also changed as a result of the process change.

Construction differences between the Assembly sites are as follows:

	HANA	TFME	HFTF
Wire type	1.25 mil Au	1mil Au	1mil Cu
Mount compound	400154	A-03	A-21
Mold compound	450179	R-07	R-27
Pin 1 ID	Stripe	Stripe	Dot

Reason for Change:

These changes are part of our multiyear plan to transition products from our 150-milimeter factories to newer, more efficient manufacturing processes and technologies, underscoring our commitment to product longevity and supply continuity.

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

None

Impact on Environmental Ratings:

Checked boxes indicate the status of environmental ratings following implementation of this change. If below boxes are checked, there are no changes to the associated environmental ratings.

RoHS	REACH	Green Status	IEC 62474
☒ No Change	☒ No Change	☒ No Change	☒ No 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
DL-LIN	DLN	USA	Dallas
RFAB	**RFB**	**USA**	**Richardson**

Die Rev:

Current	**New**
Die Rev [2P]	**Die Rev [2P]**
B	**A**

Assembly Site	**Assembly Site Origin (22L)**	**Assembly Country Code (23L)**	**Assembly City**
HANA	HNT	THA	Ayutthaya
TFME	NFM	CHN	Nantong
HFTF	**HFT**	**CHN**	**Hefei**

Sample product shipping label (not actual product label)

Product Affected:

TPS71501DCKR	TPS71523DCKR	TPS71530DCKRG4	TPS715345DCKR
TPS71501DCKRG4	TPS71525DCKR	TPS71533DCKR	TPS71550DCKR
TPS71518DCKR	TPS71525DCKRG4	TPS71533DCKRG4	TPS71550DCKRG4
TPS71518DCKRG4	TPS71530DCKR		

For alternate parts with similar or improved performance, please visit the product page on TI.com

Qualification Report
Approve Date 17-NOVEMBER -2022

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: TPS71550DCKRM3
HAST	A2	Biased HAST	130C/85%RH	96 Hours	3/240/0
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	3/240/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	3/240/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	3/240/0
HTOL	B1	Life Test	125C	1000 Hours	3/240/2[1,2]
ESD	E2	ESD CDM	-	250 Volts	1/3/0
ESD	E2	ESD HBM	-	1000 Volts	1/3/0
LU	E4	Latch-Up	Per JESD78	-	1/6/0

- QBS: Qual By Similarity
- Qual Device TPS71550DCKRM3 is qualified at MSL1 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

[1]-Unit 79 melted to the top of the socket
[2]-Unit 23 lost during testing

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

Location	E-Mail
WW Change Management Team	PCN_ww_admin_team@list.ti.com