



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20250910001.1

**Qualification of RFAB using qualified Process Technology, Datasheet, Die Revision,
and additional Assembly site for select devices**

Change Notification / Sample Request

Date: September 10, 2025

To: MOUSER 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 60 days of the date of this notice. Lack of acknowledgement of this notice within 60 days constitutes acceptance and approval of this change. If samples or additional data are required, requests must be received within 60 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 60 day sample request window, customers will still have 30-days to complete their evaluation regardless of the proposed 1st ship date.

Changes outlined in this notification underscore our commitment to product longevity and supply continuity, as well as our continued efforts to transition to newer, more efficient manufacturing processes and technologies. Specifically, this particular notification is related to TI's multiyear transition plan for our two remaining 150-millimeter production lines (DFAB in Dallas, Texas, and SFAB in Sherman, Texas). SFAB closure activities are expected to begin by the end of 2025. DFAB will remain open with a smaller set of 200mm technologies and GaN.

For questions regarding this notice or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the Change Management team. For sample requests or sample related questions, contact your local Field Sales Representative. As always, we thank you for your continued business.

TI values customer engagement and feedback related to TI changes. Customers should contact TI if there are questions or concerns regarding a change notification.

Change Management Team
SC Business Services

20250910001.1
Attachment: 1

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, you have recently purchased these devices. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
TPS73001DBVR	NULL

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

PCN Number:	20250910001.1	PCN Date:	September 10, 2025
Title:	Qualification of RFAB using qualified Process Technology, Datasheet, Die Revision, and additional Assembly site for select devices		
Customer Contact:	Change Management Team	Dept:	Quality Services
Proposed 1st Ship Date:	December 09, 2025	Sample requests accepted until:	November 09, 2025*
*Sample requests received after November 09, 2025 will not be supported.			
Change Type:			
<input checked="" type="checkbox"/>	Assembly Site	<input checked="" type="checkbox"/>	Design
<input checked="" type="checkbox"/>	Assembly Process	<input checked="" type="checkbox"/>	Data Sheet
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site
<input checked="" type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Material
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Process
<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Wafer Fab Site
<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Wafer Fab Material
<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Wafer Fab Process
PCN Details			
Description of Change:			
Texas Instruments is pleased to announce the addition of RFAB using the LBC9 qualified process technology and additional Assembly Site and BOM options for the devices listed below.			
Current Fab Site			Additional Fab Site
Current Fab Site	Process	Wafer Diameter	Additional Fab Site
DFAB	LBC3	200 mm	RFAB
			LBC9
			300 mm
The die was also changed as a result of the process change.			
Construction differences are as follows:			
	Current	Current	Additional
Assembly Site	TFME	UTL2	CDAT
Lead Finish	NiPdAu	NiPdAu	Matte Sn
Wire diam/type	Au; 1.3mil	Au; 1.3mil	Cu; 0.8 mil
Mount compound	SID#A-03	SID#PZ0013	4226215
Mold compound	SID#R-13	SID#CZ0096	4222198
Passivation layer material	Nitride	Nitride	Oxide, SiON
Marking Appearance	Stripe	Dot	Dot

Changes from Revision J (April 2015) to Revision K (June 2025)	Page
• Updated the numbering format for tables, figures, and cross-references throughout the document.....	1
• Added new silicon (M3) devices to document.....	1
• Changed entire document to identify the features and differences of the legacy chip and new chip and the adjustable and fixed versions of the device.....	1
• Changed <i>Features, Applications, and Description</i> sections.....	1
• Changed front-page figure	1
• Changed <i>Pin Configuration and Functions</i> section: Changed DBV pinout NR pins to NC/NR, added NC/NR pin row with reference to TPS7A20 for lower noise performance to <i>Pin Functions</i> table.....	3
• Added new silicon curves to <i>Typical Characteristics</i> section.....	7
• Deleted (<i>170 μA, typically</i>) from quiescent current discussion in <i>Overview</i> section.....	12
• Changed <i>Functional Block Diagrams</i> section.....	12
• Changed <i>Shutdown</i> section.....	14
• Changed <i>Foldback Current Limit</i> section.....	14
• Changed <i>Input and Output Capacitor Requirements</i> section.....	18
• Changed <i>Reverse Current Operation</i> section.....	19
• Changed input capacitor value from <i>0.1 μF</i> to <i>1 μF</i> in <i>Detailed Design Procedure</i> section.....	20
• Changed <i>Application Curves</i> section.....	20
• Added new figures to <i>Layout Examples</i> section.....	24
• Added M3 information to <i>Ordering Information</i> table.....	26

Product Folder	Current Datasheet Number	New Datasheet Number	Link to full datasheet
TPS730	SBVS054J	SBVS054K	http://www.ti.com/product/TPS730

The datasheets will be changing as a result of the above mentioned changes. The datasheet change details can be reviewed in the datasheet revision history. The datasheet also provides more information on the performance differences between the LBC9 chip (new chip) and the LBC3 chip (legacy chip). See below example for TPS730:

5.5 Electrical Characteristics

over recommended operating temperature range, $T_J = -40^{\circ}\text{C}$ to $+125^{\circ}\text{C}$ $V_{EN} = V_{IN}$, $V_{IN} = V_{OUT(nom)} + 1\text{V}$, $I_{OUT} = 1\text{mA}$, $C_{OUT} = 10\mu\text{F}$, $C_{NR} = 0.01\mu\text{F}$ (unless otherwise noted). All typical values at $T_J = 25^{\circ}\text{C}$.

PARAMETER		TEST CONDITIONS	MIN	TYP	MAX	UNIT
V_{IN}	Input voltage range ⁽¹⁾		2.7		5.5	V
I_{OUT}	Continuous output current		0		200	mA
V_{FB}	Internal reference (TPS73001)		1.201	1.225	1.25	V
V_{OUT}	Output voltage range (TPS73001)		V_{FB}	$5.5 - V_{DROPOUT}$		V
	Output voltage accuracy	$0\mu\text{A} < I_{OUT} < 200\text{mA}$, $V_{OUT} + 1\text{V} < V_{IN} < 5.5\text{V}$	-2%	$V_{OUT(nom)}$	2%	
$\Delta V_{OUT}/\Delta V_{IN}$	Line regulation ⁽¹⁾	$V_{OUT} + 1\text{V} \leq V_{IN} \leq 5.5\text{V}$		0.05		%/V
$\Delta V_{OUT}/\Delta I_{OUT}$	Load regulation	$0\mu\text{A} \leq I_{OUT} \leq 200\text{mA}$		5		mV
V_{DO} ⁽²⁾	Dropout voltage	$V_{IN} = V_{OUT} - 0.1\text{V}$, $I_{OUT} = 200\text{mA}$		120	210	mV
I_{CL}	Output current limit	$V_{OUT} = 0\text{V}$ (Legacy chip)	285		600	mA
		$V_{IN} = V_{OUT(NOM)} + 1\text{V}$, $V_{OUT} = 0.9 \times V_{OUT(NOM)}$ (new chip only)	320		460	
I_{SC}	Short-circuit current limit	$V_{OUT} = 0\text{V}$ (New Chip)		175		mA
I_{GND}	Quiescent current (GND current)	$0\mu\text{A} \leq I_O \leq 200\text{mA}$ (Legacy Chip)		170	220	μA
		$0\mu\text{A} \leq I_O \leq 200\text{mA}$ (New Chip)		250	1000	
I_{SHDN}	Shutdown current	$V_{EN} = 0\text{V}$, $2.7\text{V} < V_I < 5.5\text{V}$ (legacy chip) ⁽³⁾		0.07	1	μA
		$V_{EN} = 0\text{V}$, $2.7\text{V} < V_I < 5.5\text{V}$ (new chip) ⁽³⁾		0.01	1	
I_{FB}	Feedback pin current	$V_{FB} = 1.8\text{V}$ (legacy chip)			1	μA
		$V_{FB} = 1.8\text{V}$ (new chip)			0.05	

8.1.2 Device Nomenclature

Table 8-1. Ordering Information

PRODUCT ^{(1) (2)}	DESCRIPTION
TPS730xxyy z M3	<p>xx is the nominal output voltage (for example, 28 = 2.8 V; 285 = 2.85 V; 01 = adjustable version). yyy is the package designator. z is the package quantity. R is for reel (3000 pieces), T is for tape (250 pieces). M3 is a suffix designator for devices that only use the latest manufacturing flow (CSO: RFB). Devices without this suffix ship with the legacy chip (CSO: DLN) or the new chip (CSO: RFB). The reel packaging label provides CSO information to distinguish which chip is being used. The device performance for new and legacy chips is denoted throughout the document.</p>

Qual details are provided in the Qual Data Section.

Reason for Change:

These changes are part of our multiyear plan to transition products 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):

Any differences/changes between the LBC3 die and LBC9 die have been made in the data sheet using "Legacy chip" (LBC3) and "New chip" (LBC9).

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
<input checked="" type="checkbox"/> 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
DFAB	DLN	USA	Dallas
RFAB	RFB	USA	Richardson

Die Rev:

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

Assembly Site Information:

Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
TFME	NFM	CHN	Economic Development Zone
UTL2	NS2	THA	Bangpakong, Chachoengsao
CDAT	CDA	CHN	Chengdu

Sample product shipping label (not actual product label):

TEXAS INSTRUMENTS
 MADE IN: Malaysia
 2DC: 2Q:
 MSL 2 /260C/1 YEAR SEAL DT
 MSL 1 /235C/UNLIM 03/29/04
 OPT:
 ITEM: 39
LBL: 5A (L)T0:1750

(1P) SN74LS07NSR
 (Q) 2000 (D) 0336
 (31T) LOT: 3959047MLA
 (4W) TKY (1T) 7523483SI2
 (P) 0833317
 (2P) REV: 0833317
 (20L) CSO: SHE (21L) CCO:USA
 (22L) ASO: MLA (23L) ACO: MYS

Product Affected

TPS73001DBVR

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: <u>TPS73001DBVRM3</u>	Process QBS Reference: <u>S1508017C1PLNR</u>	Package QBS Reference: <u>TLV9061IDBVR</u>	Package QBS Reference: <u>LMC7101QM5X/NOPB</u>	Product QBS Reference: <u>TPS79301DBVRM3</u>
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	3/231/0	3/231/0	1/77/0	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	3/231/0	3/231/0	1/77/0	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	3/231/0	3/231/0	1/77/0	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	3/231/0	-	-
HTSL	A6	High Temperature Storage Life	175C	500 Hours	-	3/135/0	-	1/77/0	-
HTOL	B1	Life Test	125C	1000 Hours	-	3/231/0	-	-	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	3/2400/0	-	-	-
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	-	-	3/228/0	-	-

Type	#	Test Name	Condition	Duration	Qual Device: <u>TPS73001DBVRM3</u>	Process QBS Reference: <u>S1508017C1PLNR</u>	Package QBS Reference: <u>TLV9061IDBVR</u>	Package QBS Reference: <u>LMC7101QM5X/NOPB</u>	Product QBS Reference: <u>TPS79301DBVRM3</u>
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	-	-	3/228/0	-	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB-Free Solder;	-	-	-	3/66/0	1/15/0	-
PD	C4	Physical Dimensions	(per mechanical drawing)	-	-	3/30/0	3/15/0	1/10/0	-
ESD	E2	ESD CDM	-	500 Volts	-	1/3/0	-	1/3/0	1/3/0
ESD	E2	ESD HBM	-	1000 Volts	-	1/3/0	-	1/3/0	1/3/0
LU	E4	Latch-Up	Per JESD78	-	-	1/6/0	-	1/3/0	1/3/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	-	3/90/0	-	3/90/0	1/30/0
FTY	E6	Final Test Yield	-	-	1/All/0	-	3/All/0	-	1/All/0

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device TPS73001DBVRM3 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/>

TI Qualification ID: R-NPD-2504-077

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

In performing change qualifications, Texas Instruments follows integrated circuit industry standards in performing defect mechanism analysis and failure mechanism-based accelerated environmental testing to ensure wafer fab process, assembly process and product quality and reliability. As encouraged by these standards, TI uses both product-specific and generic (family) data in qualifying its changes. For devices to be categorized as a 'product qualification family' for generic data purposes, they must share similar product, wafer fab process and assembly process elements. The applicability of generic data (also known at TI as Qualification by Similarity (QBS)) is determined by the Reliability Engineering function following these industry standards. Generic data is shown in the qualification report in columns titled "QBS Process" (for wafer fab process), "QBS Package" (for assembly process) and "QBS Product" (for product family).

For questions regarding this notice, e-mails can be sent to the Change Management team or your local Field Sales Representative.

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