



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20250129004.1

**Qualification of RFAB using qualified Process Technology, Die Revision, Datasheet
and additional Assembly Site/BOM options for select devices
Change Notification / Sample Request**

Date: January 29, 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

20250129004.1
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
TPS79230DBVR	NULL
TPS79330DBVR	NULL
TPS79333DBVR	NULL
TPS79318DBVR	TPS79318DBVR
TPS79328DBVR	TPS79328DBVR
TPS79325DBVR	NULL

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

PCN Number:	20250129004.1	PCN Date:	January 29, 2025
Title:	Qualification of RFAB using qualified Process Technology, Die Revision, Datasheet and additional Assembly Site/BOM options for select devices		
Customer Contact:	Change Management Team	Dept:	Quality Services
Proposed 1st Ship Date:	April 29, 2025	Sample requests accepted until:	March 30, 2025*

***Sample requests received after March 30, 2025 will not be supported.**

Change Type:

<input checked="" type="checkbox"/> Assembly Site	<input checked="" type="checkbox"/> Design	<input type="checkbox"/> Wafer Bump Material
<input checked="" type="checkbox"/> Assembly Process	<input checked="" type="checkbox"/> Data Sheet	<input type="checkbox"/> Wafer Bump Process
<input checked="" type="checkbox"/> Assembly Materials	<input type="checkbox"/> Part number change	<input checked="" type="checkbox"/> Wafer Fab Site
<input type="checkbox"/> Mechanical Specification	<input type="checkbox"/> Test Site	<input checked="" type="checkbox"/> Wafer Fab Material
<input checked="" type="checkbox"/> Packing/Shipping/Labeling	<input type="checkbox"/> Test Process	<input checked="" type="checkbox"/> Wafer Fab Process

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of its RFAB fabrication facility as an additional Wafer Fab option in addition to an Assembly site/BOM options for the device listed below.

Current Fab Site			Additional Fab Site		
Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter
DFAB	LBC3	150 mm	RFAB	LBC9	300 mm

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

Construction differences are as follows:

Group 1 Device:

	TFME	CDAT
Wire diam/type	1.3mil Au	1.0mil Cu
Mount compound	A-03	4207123
Mold compound	R-13	4222198
Lead finish	NiPdAu	Matte Sn
Pin 1 ID Marking	Stripe	Dot

Group 2 Device:

	PHI	CDAT
Wire diam/type	1.3mil Cu	1.0mil Cu
Lead finish	NiPdAu	Matte Sn
Pin 1 ID Marking	Stripe	Dot

Upon expiry of this PCN, TI will combine lead finish solutions in a single standard part number. For example, a customer order for 7500 units of a specific TI part number with 2500 units SPQ (Standard Pack Quantity per reel) may be fulfilled in the following ways:

- 3 reels of NiPdAu finish.
- 3 reels of Matte Sn finish
- 2 reels of Matte Sn and 1 reel of NiPdAu finish
- 2 reels of NiPdAu and 1 reel of Matte Sn finish

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 links to the revised datasheets are available in the table below.

Changes from Revision D (December 2024) to Revision E (January 2025)	Page
• Added <i>New Chip to Layout Example (DBV 5-Pin Package)</i> figure caption.....	25

Changes from Revision C (December 2024) to Revision D (December 2024)	Page
• Added <i>Layout Example (DBV 5-Pin Package)</i> figure.....	25

Changes from Revision B (May 2002) to Revision C (December 2024)	Page
• Updated the numbering format for tables, figures, and cross-references throughout the document.....	1
• Changed entire document to align with current family format.....	1
• Added M3 devices to document.....	1
• Added NC/NR pin.....	1
• Updated Pin Description table to include new chip and legacy chip descriptions.....	1
• Added suggestion to look at TPS7A20 for lower noise performance.....	1

Changes from Revision M (December 2024) to Revision N (January 2025)	Page
• Added <i>New Chip to Layout Example (DBV Package)</i> figure caption.....	27

Changes from Revision L (March 2015) to Revision M (December 2024)	Page
• Updated the numbering format for tables, figures, and cross-references throughout the document	1
• Changed entire document to align with current family format	1
• Added M3 devices to document	1
• Added NC/NR pin.....	3
• Updated Pin Description table to include new chip and legacy chip descriptions.....	3
• Added suggestion to look at TPS7A20 for lower noise performance.....	3
• Updated <i>Layout</i> section image.....	25

Product Folder	Current Datasheet Number	New Datasheet Number	Link to full datasheet
TPS793	SLVS348L	SLVS348N	http://www.ti.com/product/TPS793
TPS792	SLVS337B	SLVS337E	http://www.ti.com/product/TPS792

For more information on the performance of the LBC9 die and any differences with LBC4 die. For TPS792 please consult the datasheet (rev. [SLVS337E](#)). For TPS793 please consult the datasheet (rev. [SLVS348N](#)). An example of that comparison is shown below:

5.5 Electrical Characteristics

over recommended operating temperature range, $T_J = -40^\circ\text{C}$ to $+125^\circ\text{C}$ $V_{EN} = V_{IN}$, $V_{IN} = V_{O(\text{typ})} + 1\text{V}$ ⁽¹⁾ $I_{OUT} = 1\text{ mA}$, $C_{OUT} = 10\text{ }\mu\text{F}$, $C_{NR} = 0.01\text{ }\mu\text{F}$ (Legacy Chip) (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		2.7	5.5	V
I_{OUT}	Continuous output current		0	200	mA
V_{OUT}	Output voltage range	TPS79301	V_{FB}	$5.5 - V_{\text{DROPOUT}}$	V
		TPS79318	$0\mu\text{A} < I_{OUT} < 200\text{mA}, 2.8\text{V} < V_{IN} < 5.5\text{V}$	1.764	
		TPS79325	$0\mu\text{A} < I_{OUT} < 200\text{mA}, 3.5\text{V} < V_{IN} < 5.5\text{V}$	2.45	
		TPS79328	$0\mu\text{A} < I_{OUT} < 200\text{mA}, 3.8\text{V} < V_{IN} < 5.5\text{V}$	2.744	
		TPS793285 (Legacy chip only)	$0\mu\text{A} < I_{OUT} < 200\text{mA}, 3.85\text{V} < V_{IN} < 5.5\text{V}$	2.793	
		TPS79330	$0\mu\text{A} < I_{OUT} < 200\text{mA}, 4\text{V} < V_{IN} < 5.5\text{V}$	2.94	
		TPS79333	$0\mu\text{A} < I_{OUT} < 200\text{mA}, 4.3\text{V} < V_{IN} < 5.5\text{V}$	3.234	
		TPS793475 (Legacy chip only)	$0\mu\text{A} < I_{OUT} < 200\text{mA}, 5.25\text{V} < V_{IN} < 5.5\text{V}$	4.655	
I_{GND}	Quiescent current (GND current)	$0\mu\text{A} \leq I_O \leq 200\text{mA}$ (Legacy Chip)		170	220
		$0\mu\text{A} \leq I_O \leq 200\text{mA}$ (New Chip)		250	1000
$\Delta V_{OUT}/\Delta I_{OUT}$	Load regulation	$0\mu\text{A} \leq I_{OUT} \leq 200\text{mA}$		5	mV
$\Delta V_{OUT}/\Delta V_{IN}$	Line regulation	$V_{OUT} + 1\text{V} \leq V_{IN} \leq 5.5\text{V}$		0.05	0.12
					%/V

8.1.2 Device Nomenclature

Table 8-1. Ordering Information ^{(1) (2)}

PRODUCT	V_{OUT}
TPS793xx yyyM3 z	$XX(X)$ is the nominal output voltage (for example, 28 = 2.8 V; 285 = 2.85 V; 01 = adjustable version). YYY is the package designator. M3 is a suffix designator for the devices that only use the latest manufacturing flow (CSO:RFB). Devices without this suffix can 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. Z is the package quantity. R is for reel (3000 pieces), T is for tape (250 pieces).

5.5 Electrical Characteristics

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

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNIT		
V_{OUT}	Output accuracy	TPS79201 ⁽¹⁾	$0\mu\text{A} < I_{OUT} < 100\text{mA}$ $1.22\text{V} < V_{OUT} < 5.2\text{V}$	0.98 V_{OUT}	V_{OUT}	1.02 V_{OUT}	V
		TPS79225 (Legacy chip only)	$0\mu\text{A} < I_{OUT} < 100\text{mA}$ $1.22\text{V} < V_{OUT} < 5.2\text{V}$	2.45	2.5	2.55	V
		TPS79228 (Legacy chip only)	$0\mu\text{A} < I_{OUT} < 100\text{mA}$ $1.22\text{V} < V_{OUT} < 5.2\text{V}$	2.744	2.8	2.856	V
		TPS79230	$0\mu\text{A} < I_{OUT} < 100\text{mA}$, $4\text{V} < V_{IN} < 5.5\text{V}$	2.94	3	3.06	
I_{GND}	Quiescent current (GND current)	$0\mu\text{A} \leq I_O \leq 100\text{mA}$ (Legacy Chip)		170	250	μA	
		$0\mu\text{A} \leq I_O \leq 100\text{mA}$ (New Chip)		250	1000		

8.1.2 Device Nomenclature

Table 8-1. Ordering Information

PRODUCT	V _{OUT}
TPS792xxxx yyyM3 z	XX(X) is the nominal output voltage (for example, 28 = 2.8 V; 285 = 2.85 V; 01 = adjustable version). YYY is the package designator. M3 is a suffix designator for the devices that only use the latest manufacturing flow (CSO:RFB). Devices without this suffix can 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. Z is the package quantity. R is for reel (3000 pieces), T is for tape (250 pieces).

Qual details are provided in the Qual Data Section.

Reason for Change:

These changes are part of our multiyear plan to transition products from our 150-millimeter 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):

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			
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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]
A	A

Assembly Site Information:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
TIPI	PHI	PHL	Baguio City
TFME	NFM	CHN	Economic Development Zone
CDAT	CDA	CHN	Chengdu

Sample product shipping label (not actual product label):

 TEXAS INSTRUMENTS MADE IN: Malaysia 2DC: 2G 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) (2P) REV: (V) 0053317 (20L) CS0: SHE (21L) CCO:USA (22L) AS0: MLA (23L) AC0: MYS										
Group 1 Product Affected: <table border="1"> <tr> <td>TPS79230DBVR*</td> <td>TPS79325DBVR*</td> <td>TPS79328DBVR*</td> <td>TPS79330DBVR*</td> </tr> <tr> <td>TPS79318DBVR*</td> <td></td> <td></td> <td></td> </tr> </table> Group 2 Product Affected: <table border="1"> <tr> <td>TPS79333DBVR*</td> </tr> </table>					TPS79230DBVR*	TPS79325DBVR*	TPS79328DBVR*	TPS79330DBVR*	TPS79318DBVR*				TPS79333DBVR*
TPS79230DBVR*	TPS79325DBVR*	TPS79328DBVR*	TPS79330DBVR*										
TPS79318DBVR*													
TPS79333DBVR*													

*G4 part numbers are available and will remain on NiPdAu flows. This PCN does not apply to existing G4 materials. Please visit TI's [labeling and symbolization](#) page for more information on material designators.

For alternate parts with similar or improved performance, please visit the product page on [TI.com](#)

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: TPS79325DBVRM3	QBS Process Reference: TCAN1044AEVDRQ1	QBS Package Reference: TLV9061IDBVR	QBS Package Reference: TLV74325PDBVR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	3/231/0	3/231/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	3/231/0	3/231/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	3/231/0
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	3/231/0	-
HTOL	B1	Life Test	150C	1000 Hours	-	3/231/0	-	-
ELFR	B2	Early Life Failure Rate	150C	48 Hours	-	3/2400/0	-	-
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	-	-	3/228/0	-
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	-

Type	#	Test Name	Condition	Duration	Qual Device: TPS79325DBVRM3	QBS Process Reference: TCAN1044AEVDRQ1	QBS Package Reference: TLV9061DBVR	QBS Package Reference: TLV74325PDBVR
PD	C4	Physical Dimensions	(per mechanical drawing)	-	-	-	3/15/0	-
ESD	E2	ESD CDM	-	250 Volts	1/3/0	-	-	-
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	-	-	-
LU	E4	Latch-Up	Per JESD78	-	1/3/0	-	-	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	-	-

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device [TPS79325DBVRM3](#) 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-2402-073

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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