

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:					
<input checked="" type="checkbox"/>	Assembly Site	<input checked="" type="checkbox"/>	Assembly Process		
<input checked="" type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification		
<input type="checkbox"/>	Test Site	<input checked="" type="checkbox"/>	Packing/Shipping/Labeling		
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material		
<input checked="" type="checkbox"/>	Wafer Fab Site	<input checked="" type="checkbox"/>	Wafer Fab Materials		
		<input type="checkbox"/>	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- 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):					
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		
<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<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
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

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