

<b>PCN Number:</b>	20230228004.1	<b>PCN Date:</b>	March 07, 2023
<b>Title:</b>	Qualification of new Fab site (FFAB) using qualified Process Technology, Die Revision and additional Assembly site for select devices		
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>	<b>Dept:</b>	Quality Services
<b>Proposed 1<sup>st</sup> Ship Date:</b>	Jun 7, 2023	<b>Sample requests accepted until:</b>	Apr 7, 2023*

**\*Sample requests received after April 7, 2023 will not be supported.**

**Change Type:**

<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process	<input checked="" type="checkbox"/>	Assembly Materials
<input checked="" type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification	<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"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material	<input type="checkbox"/>	Wafer Bump Process
<input checked="" type="checkbox"/>	Wafer Fab Site	<input checked="" type="checkbox"/>	Wafer Fab Materials	<input checked="" type="checkbox"/>	Wafer Fab Process
		<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 (FFAB, BICOMHD) and additional Assembly site (FMX) for selected devices as listed below in the product affected section.

Current Fab Site			Additional Fab Site		
Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter
DL-LIN	BICOM	150 mm	FFAB	BICOMHD	200 mm

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

Construction differences are noted below:

	<b>AMKOR P1</b>	<b>TI Mexico</b>
Wire type	1.0 mil Au	1.0 mil Cu
Mount compound	101374994	4223772
Mold compound	101323396	4211880
Lead finish	Matte Sn	NiPdAu
MSL Level	1	2
Pin 1 marking	Stripe	Dimple

Upon expiry of this PCN TI will combine lead free solutions in a single ***standard part number***, for the devices in the "Product Affected" Section. For example; [THS3091DDAR](#) – can ship with both Matte Sn and NiPdAu.

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):**

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
<b>FR-BIP-1</b>	<b>TID</b>	<b>DEU</b>	<b>Freising</b>

**Die Rev:**

Current	New
Die Rev [2P]	<b>Die Rev [2P]</b>
A	<b>A</b>

**Assembly Site Information:**

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
Amkor P1	AKR	PHL	Muntinlupa
<b>TI Mexico</b>	<b>MEX</b>	<b>MEX</b>	<b>Aguascalientes</b>

Sample product shipping label (not actual product label)

TEXAS INSTRUMENTS  
 MADE IN: Malaysia  
 2DC: 20:  
 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) 0033317  
 (20L) CSO: SHE (21L) CCO: USA  
 (22L) ASO: MLA (23L) ACO: MYS

**Product Affected:**

THS3091DDA	THS3091DDAR	THS3095DDA	THS3095DDAR
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For alternate parts with similar or improved performance, please visit the product page on [TI.com](http://TI.com)

**Qualification Report**  
**Approve Date 22-SEPTEMBER-2022**

**Qualification Results**

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

Type	#	Test Name	Condition	Duration	Qual Device: THS3095DDAR	QBS Process Reference: OPA2810IDGKR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	3/230/0	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	170C	420 Hours	3/231/0	3/231/0
HTOL	B1	Life Test	125C	1000 Hours	-	3/231/0
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	3/3000/0
ESD	E2	ESD CDM	-	1500 Volts	1/3/0	3/9/0
ESD	E2	ESD HBM	-	2500 Volts	1/3/0	3/9/0
LU	E4	Latch-Up	Per JESD78	-	1/3/0	3/9/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	3/90/0

- QBS: Qual By Similarity
- Qual Device THS3095DDAR is qualified at MSL2 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 contact below or your local Field Sales Representative.

Location	E-Mail
WW Change Management Team	<a href="mailto:PCN_ww_admin_team@list.ti.com">PCN_ww_admin_team@list.ti.com</a>

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