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

***Sample requests received after April 7, 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 (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:

	AMKOR P1	TI Mexico
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
☒ 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
FR-BIP-1	**TID**	**DEU**	**Freising**

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
Amkor P1	AKR	PHL	Muntinlupa
TI Mexico	**MEX**	**MEX**	**Aguascalientes**

Sample product shipping label (not actual product label)

Product Affected:

THS3091DDA	THS3091DDAR	THS3095DDA	THS3095DDAR

For alternate parts with similar or improved performance, please visit the product page on 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	PCN_ww_admin_team@list.ti.com