PCN Number:	20250430001.1	PCN Date:	May 01, 2025
Title:	Qualification of FFAB 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:	July 30, 2025	Sample requests accepted until:	June 30, 2025*

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

Change Type:

☒	Assembly Site	☒	Design	☐	Wafer Bump Material
☒	Assembly Process	☒	Data Sheet	☐	Wafer Bump Process
☒	Assembly Materials	☐	Part number change	☒	Wafer Fab Site
☐	Mechanical Specification	☐	Test Site	☒	Wafer Fab Material
☒	Packing/Shipping/Labeling	☐	Test Process	☒	Wafer Fab Process

PCN Details

Description of Change:

Texas Instruments is pleased to announce the addition of FFAB using the BICOM3XHV qualified process technology and additional Assembly Sites (MLA & CDAT) and BOM options for the devices listed below.

Current Fab Site			Additional Fab Site		
Current Fab Site	**Process**	**Wafer Diameter**	**Additional Fab Site**	**Process**	**Wafer Diameter**
SFAB	JIBB	150 mm	FFAB	BICOM3XHV	200 mm

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

Construction differences are as follows:

Group 1 device:

	Current	Proposed
Assembly site	MLA	MLA
Wire diam/type	1.15mil, 1.3mil Au	0.8mil Cu
Mount compound	4205846	4147858
Mold compound	4209640	4211880
Topside marking	BB letters	TI letters

Group 2 device:

	ASESH	MLA
Wire diam/type	1.0mil Cu	0.8mil Cu
Lead finish	NiPdAuAg	NiPdAu
Mount compound	SID#EY1000063	4147858
Mold compound	SID#EN2000631	4211880
Topside marking	No logo	TI letters

Group 3 device:

	TFME	CDAT
Wire diam/type	1.0mil Au	0.8mil Cu
Lead finish	NiPdAu	MatteSn
Mount compound	SID# A-03	4207123
Mold compound	SID#R-13	4222198
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 A (February 2007) to Revision B (April 2025) **Page**

Product Folder	Current Datasheet Number	New Datasheet Number	Link to full datasheet
OPAx237	SBOS057A	**SBOS057B**	http://www.ti.com/product/OPA237

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
SH-BIP-1	SHE	USA	Sherman
FR-BIP-1	**TID**	**DEU**	**Freising**

Die Rev:

Current	New
Die Rev [2P]	Die Rev [2P]
A, C	**A**

Assembly Site Information:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
ASESH	ASH	CHN	Shanghai
TFME	NFM	CHN	Economic Development Zone
CDAT	**CDA**	**CHN**	**Chengdu**
MLA	**MLA**	**MYS**	**KUALA LUMPUR**

Sample product shipping label (not actual product label):

Group 1 Product Affected:

OPA2237UA/2K5	OPA237UA/2K5

Group 2 Product Affected:

OPA2237EA/2K5

Group 3 Product Affected:

OPA237NA/3K*

*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: OPA237UA/2K5	Qual Device: OPA237NA/3K	Qual Device: OPA2237UA/2K5	Qual Device: OPA2237EA/2K5	QBS Process Reference: OPA202ID	QBS Process Reference: OPA1662AIDGKRQ1	QBS Reference: SN74LV244AQDGSRQ1	QBS Reference: SN74LV541AQDGSRQ1	QBS Reference: MC33063ADR	QBS Reference: TPS2001EDGKR	QBS Reference: TLV1812QDGKRQ1	QBS Reference: SN74AUP1G08DBVR	QBS Reference: OPA992QDBVRQ1
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	-	-	3/231/0	-	1/77/0	1/77/0	3/231/0	1/77/0	1/77/0	3/231/0	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	-	-	-	-	1/77/0	1/77/0	-	1/77/0	-	-	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	3/231/0	-	-	-	3/231/0	-	1/77/0	3/231/0	3/231/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	-	-	3/231/0	-	1/77/0	1/77/0	3/231/0	1/77/0	1/77/0	3/231/0	3/231/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	-	3/231/0	-	1/45/0	1/45/0	-	1/77/0	-	-	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	-	-	-	-	-	-	3/231/0	-	-	-	-
HTSL	A6	High Temperature Storage Life	175C	500 Hours	-	-	-	-	-	-	-	-	-	-	1/77/0	-	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	-	-	-	1/77/0	-	2/154/0	-	-	-	-
HTOL	B1	Life Test	150C	300 Hours	-	-	-	-	3/231/0	-	-	-	-	-	1/77/0	-	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	-	-	-	3/2400/0	-	-	1/800/0	-	-	-	-
SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	-	-	-	-	1/15/0	-	-	-	1/15/0	-	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	-	-	-	-	1/15/0	-	-	1/22/0	1/15/0	1/22/0	-
PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	-	-	-	-	1/10/0	1/10/0	-	-	1/10/0	-	-
ESD	E2	ESD CDM	-	250 Volts	1/3/0	1/3/0	1/3/0	1/3/0	3/9/0	-	-	-	1/3/0	1/3/0	-	-	-
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	-	3/9/0	-	-	-	1/3/0	1/3/0	-	-	-
ESD	E2	ESD HBM	-	2000 Volts	-	-	-	-	-	-	1/3/0	1/3/0	-	-	1/3/0	-	-
LU	E4	Latch-Up	Per JESD78	-	1/3/0	-	1/3/0	-	1/3/0	-	1/6/0	1/6/0	1/3/0	1/3/0	1/6/0	-	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30	-	1/30/0	-	3/90/0	-	1/30/0	1/30/0	1/30/0	-	1/30/0	-	-

- QBS: Qual By Similarity
- Qual Device OPA237UA/2K5 is qualified at MSL1 260C
- Qual Device OPA237NA/3K is qualified at MSL1 260C
- Qual Device OPA2237UA/2K5 is qualified at MSL1 260C
- Qual Device OPA2237EA/2K5 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-CHG-2401-022

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: OPA2237UA	QBS Product Reference: OPA237UA	QBS Product Reference: OPA237NA	QBS Product Reference: OPA2237UA	QBS Product Reference: OPA2237EA	Qual Device: OPA2237UA
ESD	E2	ESD CDM	-	250 Volts	-	-	1/3/0	1/3/0	1/3/0	1/3/0
ESD	E2	ESD HBM	-	1000 Volts	-	-	1/3/0	-	1/3/0	-
LU	E4	Latch-Up	Per JESD78	-	-	-	1/3/0	-	1/3/0	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	-	-	1/30/0	-	1/30/0	-
FTY	E6	Final Test Yield	-	-	1/Pass	1/Pass	-	-	-	-

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device OPA237UA/2K5 is qualified at MSL1 260C
- Qual Device OPA2237UA/2K5 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-CHG-2407-009

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.