

<b>PCN Number:</b>	20240202003.1	<b>PCN Date:</b>	February 02, 2024																		
<b>Title:</b>	Qualification of FFAB using qualified Process Technology, Die Revision, and additional Assembly BOM options for select devices																				
<b>Customer Contact:</b>	Change Management team	<b>Dept:</b>	Quality Services																		
<b>Proposed 1<sup>st</sup> Ship Date:</b>	May 2, 2024	<b>Estimated Sample Availability:</b>	Mar 2, 2024*																		
<b>*Sample requests received after March 2, 2024 will not be supported.</b>																					
<b>Change Type:</b>																					
<input type="checkbox"/> Assembly Site	<input checked="" type="checkbox"/> Design	<input type="checkbox"/>	Wafer Bump Material																		
<input checked="" type="checkbox"/> Assembly Process	<input 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 Materials																		
<input checked="" type="checkbox"/> Packing/Shipping/Labeling	<input type="checkbox"/> Test Process	<input checked="" type="checkbox"/>	Wafer Fab Process																		
<b>PCN Details</b>																					
<b>Description of Change:</b>																					
Texas Instruments is pleased to announce the qualification of a new fab & process technology (FFAB, BICOM3XHV) and assembly BOM options for selected devices as listed below in the product affected section.																					
<table border="1"> <thead> <tr> <th colspan="3">Current Fab Site</th> <th colspan="3">Additional Fab Site</th> </tr> <tr> <th>Current Fab Site</th> <th>Process</th> <th>Wafer Diameter</th> <th>Additional Fab Site</th> <th>Process</th> <th>Wafer Diameter</th> </tr> </thead> <tbody> <tr> <td>SFAB</td> <td>JIBB</td> <td>150 mm</td> <td>FFAB</td> <td>BICOM3XHV</td> <td>200 mm</td> </tr> </tbody> </table>			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	
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.																					
Assembly BOM options are noted below:																					
<table border="1"> <thead> <tr> <th>What</th> <th>Current</th> <th>Additional</th> </tr> </thead> <tbody> <tr> <td>Bond wire composition, diameter</td> <td>Au, 1.2 mils or Cu, 0.96 mil</td> <td>Cu, 0.8 mils</td> </tr> <tr> <td>Mount Compound</td> <td>4205846</td> <td>4147858</td> </tr> <tr> <td>Mold Compound</td> <td>4209640</td> <td>4211880</td> </tr> </tbody> </table>				What	Current	Additional	Bond wire composition, diameter	Au, 1.2 mils or Cu, 0.96 mil	Cu, 0.8 mils	Mount Compound	4205846	4147858	Mold Compound	4209640	4211880						
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Mount Compound	4205846	4147858																			
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Qual details are provided in the Qual Data Section.																					
<b>Reason for Change:</b>																					
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.																					
<b>Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):</b>																					
None																					
<b>Impact on Environmental Ratings:</b>																					
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.																					
<b>RoHS</b>	<b>REACH</b>	<b>Green Status</b>	<b>IEC 62474</b>																		
<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
SH-BIP-1	SHE	USA	Sherman
<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	<b>A</b>

Sample product shipping label (not actual product label)


**TEXAS INSTRUMENTS**  
 MADE IN: Malaysia  
 2DC: 20:


**G4**



(1P) SN74LS07NSR  
 (Q) 2000 (D) 0336  
 (31T) LOT: 3959047MLA  
 (4W) TKY (1T) 7523483SI2  
 (P)  
 (2P) REV: (V) 0033317  
 (20L) 630: SHE (21L) 660: USA  
 (22L) AS0: MLA (23L) ACO: MYS

MSL 2 / 260C / 1 YEAR SEAL DT  
 MSL 1 / 235C / UNLIM 03/29/04  
 OPT:  
 ITEM: 39  
 LBL: 5A (L)T0:1750

### Product Affected:

INA114AP	INA114AU/1K	INA114BU
INA114AU	INA114BP	INA114BU/1K

For alternate parts with similar or improved performance, please visit the product page on [TI.com](https://www.ti.com)

### Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: INA114AU/1K	Qual Device: INA114AP	QBS Package Reference: NE5532P	QBS Package Reference: UGC37322P	QBS Process Reference: INA821ID	QBS Process Reference: OPA207ID	QBS Package Reference: INA2128U/1K	QBS Package Reference: OP07CP
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	-	3/231/0	3/231/0	-	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	-	3/231/0	-	-	-	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	3/231/0	3/231/0	1/77/0	1/77/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	-	3/231/0	3/231/0	3/231/0	1/77/0	1/77/0
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	-	3/231/0	3/231/0	3/231/0	-	-
HTOL	B1	Life Test	150C	300 Hours	-	-	3/231/0	-	3/231/0	3/231/0	-	-
SD	C3	PB-Free Solderability	8 Hours Steam Age	-	-	-	3/66/0	3/66/0	-	-	-	-
ESD	E2	ESD CDM	-	1000 Volts	-	-	-	-	-	-	-	1/3/0
ESD	E2	ESD CDM	-	250 Volts	1/3/0	1/3/0	-	-	1/3/0	1/3/0	1/3/0	-

Type	#	Test Name	Condition	Duration	Qual Device: <a href="#">INA114AU/1K</a>	Qual Device: <a href="#">INA114AP</a>	QBS Package Reference: <a href="#">NE5532P</a>	QBS Package Reference: <a href="#">UCC37322P</a>	QBS Process Reference: <a href="#">INA821ID</a>	QBS Process Reference: <a href="#">OPA207ID</a>	QBS Package Reference: <a href="#">INA2128U/1K</a>	QBS Package Reference: <a href="#">OP07CP</a>
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	-	-	-	1/3/0	1/3/0	1/3/0	-
LU	E4	Latch-Up	Per JESD78	-	1/3/0	-	-	-	1/6/0	1/3/0	1/6/0	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	1/5/0	-	-	3/90/0	1/30/0	1/30/0	1/30/0

- QBS: Qual By Similarity
- Qual Device INA114AU/1K is qualified at MSL1 260C
- Qual Device INA114AP is qualified at NOT CLASSIFIED 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-2212-035

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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