



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20250514001.1

**Qualification of RFAB using qualified Process Technology, Die Revision, Datasheet
and additional Assembly Site/BOM options for select devices
Change Notification / Sample Request**

Date: May 14, 2025

Dear Customer:

This is an announcement of a change to a device that is currently offered by Texas Instruments (TI). The details of this change are on the following pages, and are in alignment with our standard product change notification (PCN) [process](#)

TI requires acknowledgement of receipt of this notification within 60 days of the date of this notice. Lack of acknowledgement of this notice within 60 days constitutes acceptance and approval of this change. If samples or additional data are required, requests must be received within 60 days of this notification, given that samples are not built ahead of the change.

The Proposed First Ship date in this PCN letter is the earliest possible date that customers could receive the changed material. It is our commitment that the changed device will not ship before that date. If samples are requested within the 60 day sample request window, customers will still have 30-days to complete their evaluation regardless of the proposed 1st ship date.

Changes outlined in this notification underscore our commitment to product longevity and supply continuity, as well as our continued efforts to transition to newer, more efficient manufacturing processes and technologies. Specifically, this particular notification is related to TI's multiyear transition plan for our two remaining 150-millimeter production lines (DFAB in Dallas, Texas, and SFAB in Sherman, Texas). SFAB closure activities are expected to begin by the end of 2025. DFAB will remain open with a smaller set of 200mm technologies and GaN.

For questions regarding this notice or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the Change Management team. For sample requests or sample related questions, contact your local Field Sales Representative. As always, we thank you for your continued business.

TI values customer engagement and feedback related to TI changes. Customers should contact TI if there are questions or concerns regarding a change notification.

Change Management Team
SC Business Services

20250514001.1
Attachment: 1

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, you have recently purchased these devices. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
LM339AN	
LM3302N	
LM2901N	
LM339N	
LM239N	
LM2901N	
LM339N	
LM339NE4	

Technical details of this Product Change follow on the next page(s).

PCN Number:	20250514001.1	PCN Date:	May 14, 2025																		
Title:	Qualification of RFAB 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:	August 12, 2025	Sample requests accepted until:	July 13, 2025*																		
*Sample requests received after July 13, 2025 will not be supported.																					
Change Type:																					
☒	Assembly Site	☒	Design																		
☒	Assembly Process	☒	Data Sheet																		
☐	Assembly Materials	☐	Part number change																		
☐	Mechanical Specification	☐	Test Site																		
☒	Packing/Shipping/Labeling	☐	Test Process																		
☐		☐	Wafer Bump Material																		
☐		☐	Wafer Bump Process																		
☒		☒	Wafer Fab Site																		
☒		☒	Wafer Fab Material																		
☒		☒	Wafer Fab Process																		
PCN Details																					
Description of Change:																					
Texas Instruments is pleased to announce the addition of RFAB using the TIB qualified process technology and additional Assembly Site (MLA) and BOM options for the devices listed below.																					
<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>J11</td> <td>150 mm</td> <td>RFAB</td> <td>TIB</td> <td>300 mm</td> </tr> </tbody> </table>				Current Fab Site			Additional Fab Site			Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter	SFAB	J11	150 mm	RFAB	TIB	300 mm
Current Fab Site			Additional Fab Site																		
Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter																
SFAB	J11	150 mm	RFAB	TIB	300 mm																
The die was also changed as a result of the process change.																					
Construction differences are as follows:																					
Group 1 BOM Table (RFAB/Process migration, die change plus MLA as new Assembly site & BOM update):																					
	FMX	MLA																			
Bond wire composition, diameter	Cu 0.96 mil	Cu 0.8 mil																			
Group 2 BOM Table (RFAB/Process migration, die change plus BOM update):																					
	Current	Proposed																			
Bond wire composition, diameter	Cu 0.96 mil	Cu 0.8 mil																			
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.																					
		LM139, LM239, LM339, LM339B, LM139A, LM239A LM339A, LM2901B, LM2901, LM2901AV, LM2901V SLCS006Z – OCTOBER 1979 – REVISED MAY 2025																			
Changes from Revision Y (March 2025) to Revision Z (May 2025)		Page																			
• Added missing <i>Revision History</i> entry for "Updated Thermal Information" table in revision "Y".....		5																			
• Fixed duplicated Fig 6-4 graph.....		5																			
		LM139, LM239, LM339, LM339B, LM139A, LM239A LM339A, LM2901B, LM2901, LM2901AV, LM2901V SLCS006Y – OCTOBER 1979 – REVISED MARCH 2025																			

Changes from Revision X (October 2023) to Revision Y (March 2025)	Page
• Removed legacy devices from <i>Device Information</i> table.....	1
• Updated front page ESD values in <i>Family Comparison Table</i>	1
• Removed legacy device graphs.....	13
• Updated internal schematic.....	19



LM3302
SLCS014B – OCTOBER 1977 – REVISED APRIL 2025

Changes from Revision A (August 2003) to Revision B (April 2025)	Page
• Updated to current TI data sheet format. No changes to Electrical Table specs.....	1
• Updated ESD table for new packages.....	4
• Updated Thermal Information table for new packages.....	4
• Added Typical Graphs.....	6
• Updated Functional Block Diagram.....	8

Product Folder	Current Datasheet Number	New Datasheet Number	Link to full datasheet
LM339B, LM2901B, LM339, LM239, LM139, LM2901	SLCS006X	SLCS006Z	http://www.ti.com/product/LM339B
LM3302	SLCS014A	SLCS014B	http://www.ti.com/product/LM3302

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
RFAB	RFB	USA	Richardson

Die Rev:

Current

New

Die Rev [2P]	Die Rev [2P]
A ₁ -	A

Assembly Site Information:

Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly City
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	(22L)	(23L)	
FMX	MEX	MEX	Aguascalientes
MLA	MLA	MYS	Kuala Lumpur

Sample product shipping label (not actual product label):



Product Affected:

Group 1 Device List: (RFAB/Process migration, die change plus MLA as new Assembly site & BOM update)

LM3302N

Group 2 Device list: (RFAB/Process migration, die change plus BOM update):

LM239N	LM339AN	LM339N	LM339NE4
LM2901N			

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

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: LM239N	Qual Device: LM2901N	Qual Device: LM3302N	Qual Device: LM339AN	Qual Device: LM339N	Qual Device: LM339NE4	QBS Reference: NE5532P	QBS Reference: SN74LS03N	QBS Reference: LM324BIPWR	QBS Reference: LM2901BIPWR	QBS Reference: LM2901AVDPWRQ1 (same die as Qual Devices)
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	-	-	-	-	3/231/0	-	-	-	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	-	-	-	-	-	3/231/0	-	-	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	-	-	-	-	-	-	-
TC	A4	Temperature Cycle	-85C/150C	500 Cycles	-	-	-	-	-	-	-	3/231/0	-	-	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	-	-	-	-	-	-	-	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	-	-	-	-	-	3/231/0	-	-	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	-	-	-	-	-	3/231/0	-	-
HTOL	B1	Life Test	150C	300 Hours	-	-	-	-	-	-	-	-	-	1/77/0	1/77/0
ESD	E2	ESD CDM	-	1000 Volts	-	1/3/0	-	-	-	-	-	-	-	-	-
ESD	E2	ESD HBM	-	2000 Volts	-	-	-	-	-	-	-	-	-	-	1/3/0
LU	E4	Latch-Up	Per JESD78	-	-	-	-	-	-	-	-	-	-	-	1/3/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	-	1/30/0	-	-	-	-	-	-	-	-	3/60/0

- QBS: Qual By Similarity, also known as Generic Data
- 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-2401-084

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.

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