



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20241217019.1

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

Date: December 18, 2024

To: MOUSER PCN

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 30 days of the date of this notice. Lack of acknowledgement of this notice within 30 days constitutes acceptance and approval of this change. If samples or additional data are required, requests must be received within 30 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 30 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.

Change Management Team
SC Business Services

20241217019.1
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
UA78L05CPKG3	NULL
UA78L05ACDE4	UA78L05ACD
UA78L05AIPKG3	UA78L05AIPK
UA78L15ACPKG3	NULL
UA78L05ACPKG3	UA78L05ACPK
UA78L05AIDRE4	UA78L05AIDR
UA78L05ACDRE4	UA78L05ACDRG4

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

PCN Number:	20241217019.1	PCN Date:	December 18, 2024																		
Title:	Qualification of RFAB using qualified Process Technology, Die Revision, Datasheet and additional Assembly BOM options for select devices																				
Customer Contact:	Change Management Team	Dept:	Quality Services																		
Proposed 1st Ship Date:	March 18, 2025	Sample requests accepted until:	January 17, 2025*																		
*Sample requests received after January 17, 2025 will not be supported.																					
Change Type:																					
<input type="checkbox"/>	Assembly Site	<input checked="" type="checkbox"/>	Design																		
<input checked="" type="checkbox"/>	Assembly Process	<input checked="" type="checkbox"/>	Data Sheet																		
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change																		
<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"/>		<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 Material																		
		<input checked="" type="checkbox"/>	Wafer Fab Process																		
PCN Details																					
Description of Change:																					
Texas Instruments is pleased to announce the qualification of its RFAB fabrication facility as an additional Wafer Fab option in addition to Assembly 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>T1B</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	T1B	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	T1B	300 mm																
The die was also changed as a result of the process change.																					
Construction differences are as follows:																					
Group 1 device (SOT-89)																					
	Current	Proposed																			
Wire diam/type	1.0mil Au	0.8mil Au																			
Mount compound	A-03	A-21																			
Mold compound	R-07	R-27																			
Group 2 device (SOIC-8)																					
	Current	Proposed																			
Wire diam/type	0.96mil cu	0.8mil Cu																			
Mount compound	4147858	4225839																			
The datasheets number will be changing as a result of the above mentioned changes. The datasheet change details can be reviewed in the datasheet revision history.																					
Device Family	Change From	Change To																			
UA78L	SLVS010V	SLVS010W																			
These changes may be reviewed at the datasheet link below:																					
http://www.ti.com/product/UA78L																					

Changes from Revision V (November 2016) to Revision W (April 2023)	Page
• Added M3 devices to document.....	1
• Changed <i>Features</i> , <i>Applications</i> , and <i>Description</i> sections.....	1
• Changed <i>Description</i> column of <i>Pin Functions</i> table.....	3
• Added plots for new chip, reordered plots for legacy chip, and changed condition statement in <i>Typical Characteristics</i> section.....	14
• Changed <i>Overview</i> section.....	18
• Changed <i>Feature Description</i> section and added subsections.....	18
• Changed <i>Device Functional Modes</i> section: added <i>Device Functional Mode Comparison</i> table, deleted <i>Fixed-Output Mode</i> subsection, and added <i>Normal Operation</i> and <i>Dropout Operation</i> subsections.....	20
• Changed <i>Detailed Design Procedure</i> section and added subsections.....	21
• Added plots for new chip and changed condition statement in <i>Application Curves</i> section.....	25
• Added <i>Device Nomenclature</i> and <i>Evaluation Module</i> sections.....	28

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
SH-BIP-1	SHE	USA	Sherman
RFAB	RFB	USA	Richardson


Die Rev:

Current	New
Die Rev [2P]	Die Rev [2P]
A	A


Sample product shipping label (not actual product label)



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



G4



(1P) SN74LS07NSR
(Q) 2000 (D) 0336
(31T) LOT: 3959047MLA
(4W) TKY (1T) 7523483SI2
(P)
(2P) REV: (V) 0033317
(20L) CS0: SHE (21L) CC0: USA
(22L) AS0: MLA (23L) AC0: MYS

MSL 2 / 260C/1 YEAR
MSL 1 / 235C/UNLIM

SEAL DT
03/29/04

OPT:
ITEM: 39
LBL: 5A (L)T0:1750

Group 1 Product Affected: (SOT-89)

UA78L05ACPKG3	UA78L05CPKG3	UA78L15ACPKG3
UA78L05AIPKG3	UA78L12ACPKG3	

Group 2 Product Affected: (SOIC-8)

UA78L05ACDE4	UA78L05ACDRE4	UA78L15ACDRE4
UA78L05ACDG4	UA78L05AIDRE4	

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: UA78L05ACDRM3	Qual Device: UA78L12ACDRM3	Qual Device: UA78L15ACDRM3	QBS Reference: UCC27282QDQ1	QBS Reference: MC33063ADR	QBS Reference: MC33063ADR	QBS Reference: UA78L15ACPKM3
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/240/0	-	-	-	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	3/240/0	-	-	-	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	3/240/0	-	-	-	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	3/240/0	-	-	-	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	-	2/154/0	1/77/0	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	-	-	1/800/0	2/1600/0	-
SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	-	1/15/0	-	-	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	-	1/15/0	-	-	-
PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	-	3/30/0	-	-	-
ESD	E2	ESD CDM	-	250 Volts	-	-	3/9/0	-	-	-	1/3/0

Type	#	Test Name	Condition	Duration	Qual Device: UA78L05ACDRM3	Qual Device: UA78L12ACDRM3	Qual Device: UA78L15ACDRM3	QBS Reference: UCC27282QDQ1	QBS Reference: MC33063ADR	QBS Reference: MC33063ADR	QBS Reference: UA78L15ACPKM3
ESD	E2	ESD HBM	-	1000 Volts	-	-	3/9/0	-	-	-	1/3/0
LU	E4	Latch-Up	Per JESD78	-	-	-	-	-	-	-	1/6/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	-	-	1/30/0	-	-	-	1/30/0
FTY	E6	Final Test Yield	-	-	-	-	3/PASS	-	-	-	3/PASS

- QBS: Qual By Similarity
- Qual Device UA78L05ACDRM3 is qualified at MSL1 260C
- Qual Device UA78L12ACDRM3 is qualified at MSL1 260C
- Qual Device UA78L15ACDRM3 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-NPD-2303-035

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: UA78L05ACPKM3	Qual Device: UA78L033AIPK	Qual Device: UA78L15ACPKM3	QBS Process Reference: MC33063ADR	QBS Process Reference: MC33063ADR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/240/0	-	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	3/240/0	-	-
TC	A4	Temperature Cycle	-65C/150C	1000 Cycles	-	-	3/240/1 ¹	-	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	3/240/0	-	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	3/240/0	2/154/0	1/77/0
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	-	1/800/0	2/1600/0
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB- Free Solder;	-	-	-	1/22/0	-	-
ESD	E2	ESD CDM	-	250 Volts	-	-	1/3/0	-	-
ESD	E2	ESD HBM	-	1000 Volts	-	-	1/3/0	-	-

Type	#	Test Name	Condition	Duration	Qual Device: UA78L05ACPKM3	Qual Device: UA78L033AIPK	Qual Device: UA78L15ACPKM3	QBS Process Reference: MC33063ADR	QBS Process Reference: MC33063ADR
LU	E4	Latch-Up	Per JESD78	-	-	-	1/6/0	-	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	1/30/0	1/30/0	-	-
FTY	E6	Final Test Yield	-	-	1/1/0	1/1/0	3/3/0	-	-

- Qual Device UA78L05ACPKM3 is qualified at MSL2 260C
- Qual Device UA78L033AIPK is qualified at MSL2 260C
- Qual Device UA78L15ACPKM3 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/>

TI Qualification ID: R-NPD-2205-099

[1]-EIPD event
refer to 4C Report

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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