12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20240613003.1
Qualification of RFAB using qualified Process Technology, Die Revision, and additional Assembly Site (JCETCZ) & BOM options for select devices
Change Notification / Sample Request

Date: June 13, 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.

This particular PCN is related to TI's multiyear transition plan for our two remaining factories with 150-millimeter production (DFAB in Dallas, Texas, and SFAB in Sherman, Texas). DFAB will remain open, but will focus on 200-mm production, with a smaller set of technologies. SFAB will close no earlier than 2024 and no later than 2025. As referenced in the "reason for change" below, these changes are part of our multiyear plan to transition these products to newer, more efficient manufacturing processes and technologies, underscoring our commitment to product longevity and supply continuity.

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

20240613003.1
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
LM4040AIZ-2.5/NOPB	NULL
LM4040AIZ-4.1/NOPB	NULL
LM4040AIZ-5.0/NOPB	NULL
LM4040BIZ-2.5/NOPB	NULL
LM4040BIZ-5.0/NOPB	NULL
LM4040C25ILP	NULL
LM4040C25ILPR	NULL
LM4040C30ILP	NULL
LM4040C30ILPR	NULL
LM4040C41ILP	NULL
LM4040C41ILPR	NULL
LM4040C50ILP	NULL
LM4040C50ILPR	NULL
LM4040CIZ-2.5/LFT8	NULL
LM4040CIZ-2.5/NOPB	NULL
LM4040CIZ-4.1/NOPB	NULL
LM4040CIZ-5.0/NOPB	NULL
LM4040D20ILPR	NULL
LM4040D50ILPR	NULL
LM4040DIZ-2.5/NOPB	NULL
LM4040DIZ-4.1/NOPB	NULL
LM4040DIZ-5.0/NOPB	NULL

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

PCN Number:	20240613003.1	**PCN Date:**	June 13, 2024
Title:	Qualification of RFAB using qualified Process Technology, Die Revision, and additional Assembly Site (JCETCZ) & BOM options for select devices		
Customer Contact:	Change Management Team	**Dept:**	Quality Services
Proposed 1st Ship Date:	September 11, 2024	**Sample requests accepted until:**	July 13, 2024*

***Sample requests received after July 13, 2024 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 qualification of its RFAB fabrication facility as an additional Wafer Fab option in addition to Assembly Site (JCETCZ) & 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	LFAST	150 mm	RFAB	LBC9	300 mm
GFAB	LFAST	150 mm			
GFAB	LFAST	200 mm			

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

Construction differences are as follows:

Group 1:

	JCETCZ (current)	JCETCZ (new)
Mold compound	13101015401	131010100089

Group 2:

	TFME (current)	JCETCZ (new)
Mold compound	R-35	131010100089

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	Chip Site Country Code	Chip Site City

	Code (20L)	(21L)	
SH-BIP-1	SHE	USA	Sherman
GFAB6	GF6	GBR	Greenock
GFAB8	GF8	GBR	Greenock
RFAB	**RFB**	**USA**	**Richardson**

Die Rev:

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

Assembly Site Information:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
TFME	NFM	CHN	Economic Development Zone
JCETCZ	**JCC**	**CHN**	**Chuzhou**

Sample product shipping label (not actual product label):

Product Affected:

Group 1 Device list (RFAB/Process migration and JCETCZ BOM update):

LM4040AIZ-2.5/NOPB	LM4040BIZ-5.0/NOPB	LM4040DIZ-2.5/NOPB	LM4041CIZ-1.2/NOPB
LM4040AIZ-4.1/NOPB	LM4040CIZ-2.5/LFT8	LM4040DIZ-4.1/NOPB	LM4041DIZ-1.2/NOPB
LM4040AIZ-5.0/NOPB	LM4040CIZ-2.5/NOPB	LM4040DIZ-5.0/NOPB	
LM4040BIZ-2.5/NOPB	LM4040CIZ-4.1/NOPB	LM4041AIZ-1.2/NOPB	
LM4040BIZ-4.1/NOPB	LM4040CIZ-5.0/NOPB	LM4041BIZ-1.2/NOPB	

Group 2 Device list (RFAB/Process migration, die change plus JCETCZ as a new Assembly site & BOM update):

LM4040C20ILP	LM4040C41ILP	LM4040D25ILPR	LM4040D50ILPR
LM4040C20ILPR	LM4040C41ILPR	LM4040D30ILP	LM4041C12ILP
LM4040C25ILP	LM4040C50ILP	LM4040D30ILPR	LM4041C12ILPR
LM4040C25ILPR	LM4040C50ILPR	LM4040D41ILP	LM4041D12ILP
LM4040C30ILP	LM4040D20ILPR	LM4040D41ILPR	LM4041D12ILPR
LM4040C30ILPR	LM4040D25ILP	LM4040D50ILP	

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: TL431BQLPR	QBS Reference: LM385LP-2-5	QBS Reference: TMP1075DGKT	QBS Reference: SN1701009LP
HAST	A2	Biased HAST	110C/85%RH	264 Hours	-	-	-	1/77/0
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	-	1/77/0
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	3/231/0	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	3/231/0	1/77/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	3/231/0	1/77/0
HTOL	B1	Life Test	125C	1000 Hours	-	-	3/231/0	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	3/2400/0	-
ESD	E2	ESD CDM	-	250 Volts	1/3/0	1/3/0	1/3/0	1/3/0
ESD	E2	ESD CDM	-	1000 Volts	1/3/0			
ESD	E2	ESD HBM	-	2000 Volts	1/3/0	-	1/3/0	-
LU	E4	Latch-Up	Per JESD78	-	-	-	1/3/0	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	-	3/90/0	-	-

- QBS: Qual By Similarity
- Qual Device TL431BQLPR is qualified at NOT CLASSIFIED NOT CLASSIFIED

- 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-2401-128

For questions regarding this notice, e-mails can be sent to the Change Management team or your local Field Sales Representative.