12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20250129002.1
Qualification of RFAB using qualified Process Technology, Die Revision, Datasheet and additional Assembly site/BOM options for select devices
Change Notification / Sample Request

Date: January 29, 2025
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 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

20250129002.1
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
LMC7101AIM5X/NOPB	NULL
LMC7101BIM5X/NOPB	NULL
LMC7111BIM5X/NOPB	NULL

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

PCN Number:	20250129002.1	PCN Date:	January 29, 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:	April 29, 2025	Sample requests accepted until:	March 30, 2025*

***Sample requests received after March 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 qualification of its RFAB fabrication facility as an additional Wafer Fab option in addition to an Assembly site/BOM option for the devices listed below.

Current Fab Site			Additional Fab Site		
Current Fab Site	**Process**	**Wafer Diameter**	**Additional Fab Site**	**Process**	**Wafer Diameter**
GFAB6/8	P2CMOS	150/200 mm	RFAB	HPA9	300 mm
DL-LIN	P2CMOS	200 mm			

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

Construction differences are as follows:

	TIEMA	PHI	CDAT
Wire bond diam/type	0.96mil Cu	1.0mil Cu	0.8mil Cu
Die attach material	8075531	8095733	4226215
Mold compound	8097131	4222198	4222198
Lead finish	Matte Sn	NiPdAu	Matte Sn
Pin 1 designator	Pin 1 dot	Pin 1 stripe	Pin 1 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 SNOS719G (September 2015) to Revision * (January 2025) **Page**

- Moved LMC7101 commercial device from SNOS719G data sheet into new SBOSAL2 data sheet....1
- Updated *Features* 1
- Deleted machine model (MM) in *ESD Ratings* 3
- Updated *Thermal Information* 3
- Updated parameter names and table format in all *Electrical Characteristics* 4
- Added missing temperature range for input offset voltage drift in all *Electrical Characteristics* 4
- Changed power-supply rejection ratio from 50dB to 45dB for LMC7101A....4
- Changed power-supply rejection ratio from 50dB to 45dB for LMC7101A....4
- Changed input common-mode voltage condition from CMRR ≥ 50dB to CMRR ≥ 47dB....4
- Changed CMRR MIN from 50dB to 47dB for LMC7101B and from 55dB to 47dB for LMC7101A....4
- Deleted notes 1 and 2 in all *Electrical Characteristics* 4
- Updated note 3 to move information into slew rate test conditions....4
- Changed input common-mode voltage condition from CMRR > 50dB to CMRR > 47dB....5
- Changed CMRR MIN from 60dB to 47dB for LMC7101B and from 64dB to 47dB for LMC7101A....5
- Added missing quiescent current per amplifier TYP value....5
- Changed CMRR TYP from 82dB to 75dB....6
- Changed CMRR MIN from 60dB to 52dB for LMC7101B and from 65dB to 52dB for LMC7101A....6
- Changed CMRR MIN for TJ = –40°C to +85°C from 55dB to 51dB for LMC7101B and from 60dB to 51dB for LMC7101A....6
- Changed CMRR TYP for TJ = –40C to +85C from 82dB to 74dB....6
- Changed input offset voltage TYP from 0.11mV to 0.26mV....8
- Changed CMRR MIN from 65dB to 62dB for LMC7101B and from 70dB to 62dB for LMC7101A....8
- Changed CMRR MIN for T_J = –40°C to +85°C from 65dB to 60dB LMC7101A....8
- Deleted note 3 and included information to open-loop voltage gain test conditions....8
- Deleted Figures 6, 11, 14, 17, 20, 23, and 37....10
- Added Figure 5-6....10
- Added Figures 5-21 and 5-25....14

Changes from Revision E (March 2013) to Revision F (January 2025) **Page**

- Updated pin diagram for SOT-23 and pin names in *Pin Configurations and Functions* 2
- Deleted PDIP package information in *Pin Configuration and Functions* 2
- Updated parameter names and table format in all *Electrical Characteristics* 4
- Deleted reference to AI version in all *Electrical Characteristics* 4
- Updated dV_{OS}/dT from 2µV/°C to 10µV/°C....4
- Changed V_{CM} test condition from CMRR ≥ 50dB to CMRR ≥ 47dB....4
- Changed V_{CM} test condition for negative rail for V_S= 2.7V from CMRR ≥ 50dB to CMRR ≥ 41dB....4
- Changed I_{SC} MIN from 30mA to 25mA....6

Product Folder	Current Datasheet Number	New Datasheet Number	Link to full datasheet
LMC7101	SNOS719G	**SBOSAL2**	http://www.ti.com/product/LMC7101
LMC7111	SNOS753E	**SNOS753F**	http://www.ti.com/product/LMC7111

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
GFAB6	GF6	GBR	Greenock
GFAB8	GF8	GBR	Greenock
DL-LIN	DLN	USA	Dallas
RFAB	**RFB**	**USA**	**Richardson**

Die Rev:

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

Assembly Site Information:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
TIEMA	CU6	MYS	Melaka
TIPI	PHI	PHL	Baguio City
CDAT	**CDA**	**CHN**	**Chengdu**

Sample product shipping label (not actual product label):

Product Affected:

LMC7101AIM5X/NOPB	LMC7101BIM5X/NOPB	LMC7111BIM5X/NOPB

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: LMC7101BIM5X/NOPB	QBS Process Reference: OPA1671IDCKR	QBS Process Reference: LMC6482IM/NOPB	QBS Package Reference: TLV9061IDBVR	QBS Package Reference: LP2985A-50DBVRM3	QBS Package Reference: TPS3840PH30DBVRQ1	QBS Package Reference: TPS3838E18QDBVRCT
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	3/231/0	1/77/0	3/231/0	1/77/0	3/231/0	3/231/0
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	-	-	-	3/231/0	3/231/0
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	3/231/0	3/231/0	3/231/0	1/77/0	-	-
TC	A4	Temperature Cycle	-65/150C	500 Cycles	-	3/231/0	3/231/0	3/231/0	1/77/0	3/231/0	3/231/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	-	-	3/135/0	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	3/231/0	-	3/231/0	1/77/0	-	-
HTSL	A6	High Temperature Storage Life	175C	500 Hours	-	-	-	-	-	-	3/135/0
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	-	-	3/231/0	3/231/0
HTOL	B1	Life Test	150C	300 Hours	-	3/231/0	3/231/0	3/231/0	-	-	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	3/2397/0	-	-	-	-	-

Type	#	Test Name	Condition	Duration	Qual Device: LMC7101BIM5X/NOPB	QBS Process Reference: OPA1671IDCKR	QBS Process Reference: LMC6482IM/NOPB	QBS Package Reference: TLV9061IDBVR	QBS Package Reference: LP2985A-50DBVRM3	QBS Package Reference: TPS3840PH30DBVRQ1	QBS Package Reference: TPS3838E18QDBVRCT
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	1/15/0
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB-Free Solder:	-	-	-	-	3/66/0	-	-	-
PD	C4	Physical Dimensions	(per mechanical drawing)	-	-	-	-	3/15/0	-	3/30/0	3/90/0
ESD	E2	ESD CDM	-	1000 Volts	-	-	-	-	-	-	1/3/0
ESD	E2	ESD CDM	-	250 Volts	1/3/0	3/9/0	1/3/0	-	1/3/0	-	-
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	3/9/0	1/3/0	-	1/3/0	-	-
ESD	E2	ESD HBM	-	2000 Volts	-	-	-	-	-	-	1/3/0
LU	E4	Latch-Up	Per JESD78	-	1/3/0	3/18/0	1/3/0	-	1/6/0	-	1/6/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	3/90/0	3/90/0	-	1/30/0	3/90/0	3/90/0

- QBS: Qual By Similarity
- Qual Device LMC7101BIM5X/NOPB 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-2307-045

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: LMC7111BIM5X/NOPB	QBS Process Reference: OPA1671IDCKR	QBS Package Reference: OPA328DBVT
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	3/231/0	3/231/0
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	3/231/0	3/231/0
TC	A4	Temperature Cycle	-65/150C	500 Cycles	-	3/231/0	3/231/0
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	3/231/0	3/231/0
HTOL	B1	Life Test	150C	300 Hours	-	3/231/0	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	3/2397/0	-
SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB Solder;	-	-	-	3/66/0
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB-Free Solder;	-	-	-	3/66/0
PD	C4	Physical Dimensions	(per mechanical drawing)	-	-	-	3/15/0
ESD	E2	ESD CDM	-	250 Volts	1/3/0	3/9/0	1/3/0
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	3/9/0	1/3/0
LU	E4	Latch-Up	Per JESD78	-	1/3/0	3/18/0	1/6/0

Type	#	Test Name	Condition	Duration	Qual Device: LMC7111BIM5X/NOPB	QBS Process Reference: OPA1671IDCKR	QBS Package Reference: OPA328DBVT
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	3/90/0	1/30/0

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device LMC7111BIM5X/NOPB 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-2311-030

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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