



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN#20231128000.1A

**Qualification of RFAB as an additional Fab site option and Assembly Site (HFTF) and
BOM options for select devices
Change Notification / Sample Request**

Date: December 07, 2023

To: MOUSER PCN

Dear Customer:

Revision A is to announce the addition of new devices that were not included on the original PCN notification.

This is an announcement of a change to a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

Texas Instruments 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.

The changes discussed within this PCN will not take effect any earlier than the proposed first ship date on Page 3 of this notification, unless customer agreement has been reached on an earlier implementation of the change.

This notice does not change the end-of-life status of any product. Should product affected be on a previously issued product withdrawal/discontinuance notice, this notification does not extend the life of that product or change the life time buy offering/discontinuance plan.

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.

Sincerely,

Change Management Team
SC Business Services

20231128000.1A
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
TXS0102DCTT	null
TXS0102DCUT	null

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

PCN Number:	20231128000.1A	PCN Date:	December 07, 2023
Title:	Qualification of RFAB as an additional Fab site option and Assembly Site (HFTF) and BOM options for select devices		
Customer Contact:	Change Management Team	Dept:	Quality Services
Proposed 1st Ship Date:	Feb 27, 2024	Sample requests accepted until:	Jan 08, 2024 for rev A devices*

***Sample requests received after Jan 08, 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:

Revision A is to announce the addition of new devices that were not included on the original PCN notification. These new devices are highlighted and **bolded** in the device list below. The expected first shipment date for these new devices will be 90 days (Mar 08, 2024) from this notice for these newly added devices only.

Texas Instruments is pleased to announce the qualification of its RFAB fabrication facility as an additional Wafer Fab option in addition to Assembly site (HFTF) and 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
FR-BIP-1	ASLC10	200mm	RFAB	LBC7	300mm

The die was also changed as a result of the process change to accommodate the change in Assembly technology

Construction differences are as follows:

Group 1 Device:

	HIT	HNA	HNA (new)	HFTF
Bond wire composition, diameter	Au, 1.0 mil	Au, 1.0 mil	Cu, 0.8 mil	Cu, 0.8 mil
Mount Compound	RZ241C	400728	400180	A-18
Mold Compound	G600K	450420	450596	R-30
Lead finish	NiPdAu	NiPdAu	NiPdAu	Matte Sn

Group 2 Device:

	HIT	HNA	HFTF
Bond wire composition, diameter	Au, 0.8 mil	Au, 0.8 mil	Cu, 0.8 mil
Mount Compound	RZ241C	400180	A-18
Mold Compound	RM500F	450207	R-31

Lead finish	Matte Sn	NiPdAu	Matte Sn
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Reason for Change:

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
FR-BIP-1	TID	DEU	Freising
RFAB	RFB	USA	Richardson

Die Rev:

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

Assembly Site Information:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
HNA	HNT	THA	Ayutthaya
HIT	HTC	JPN	Kitatsugaru, Aomori
HFTF	HFT	CHN	Hefei

Sample product shipping label (not actual product label):



TEXAS INSTRUMENTS
MADE IN: Malaysia
2DC: 20:

MSL 2 / 260C / 1 YEAR	SEAL DT
MSL 1 / 235C / UNLIM	03/29/04

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

G4



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

Group 1 Product Affected: Fab site, Assembly site, BOM update

TXS0102DCTR	TXS0102DCTT
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Group 2 Product Affected: Fab site, Assembly site

TXS0102DCUR	TXS0102DCUT
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Group 1 Qualification Report

Approve Date 30-SEPTEMBER-2023

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: TXS0102DCTR	QBS Reference: SN3257QDYRQ1	QBS Reference: OPA2991QDGKRO1	QBS Reference: TXS0102DCTR	QBS Reference: TXS0102DCUR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	3/231/0	3/231/2	-	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	3/231/0	3/231/0	1/77/0	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	0/0/0	0/0/0	0/0/0	1/77/0	1/77/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	3/135/0	-	1/77/0	-
HTSL	A6	High Temperature Storage Life	175C	630 Hours	-	-	3/135/0	-	-
HTOL	B1	Life Test	150C	300 Hours	-	3/231/0	-	-	-
HTOL	B1	Life Test	150C	408 Hours	-	-	3/231/1 ¹	-	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	3/2400/4 ²	-	-
ELFR	B2	Early Life Failure Rate	150C	24 Hours	-	3/2400/0	-	-	-
SD	C3	PB 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)	-	-	1/15/0	1/15/0	-	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB-Free Solder;	-	1/22/0	-	-	-	1/22/0
PD	C4	Physical Dimensions	Cpk>1.67	-	-	3/30/0	3/30/0	-	-
ESD	E2	ESD CDM	-	1500 Volts	-	1/3/0	-	-	-
ESD	E2	ESD CDM	-	250 Volts	-	-	-	-	1/3/0
ESD	E2	ESD HBM	-	1000 Volts	-	-	-	-	1/3/0
ESD	E2	ESD HBM	-	2000 Volts	-	1/3/0	1/3/0	-	-
LU	E4	Latch-Up	Per JESD78	-	-	1/6/0	1/6/0	-	1/3/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	-	-	1/30/0
CHAR	E5	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	-	3/90/0	3/90/0	-	-

QBS: Qual By Similarity

Qual Device TXS0102DCTR 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/>

Group 2 Qualification Report

Approve Date 30-September-2023

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: TXS0102DCUR	QBS Reference: TPS2543QRTETQ1	QBS Reference: TCA39306DCUR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	3/231/0	1/77/0
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	1/77/0
UHAST	A3	Autoclave	130C/85%RH	96 Hours	-	3/231/0	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	1/77/0	3/231/0	1/77/0
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	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	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	3/2400/0	-
SD	C3	PB-Free 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); PB-Free Solder;	-	1/22/0	-	-
PD	C4	Physical Dimensions	Cpk>1.67	-	-	3/30/0	-
ESD	E2	ESD CDM	-	250 Volts	1/3/0	-	1/3/0
ESD	E2	ESD CDM	-	500 Volts	-	1/3/0	-
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	-	1/3/0
ESD	E2	ESD HBM	-	2000 Volts	-	1/3/0	-
LU	E4	Latch-Up	Per JESD78	-	1/3/0	1/6/0	1/3/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	1/30/0
CHAR	E5	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	-	3/90/0	-

QBS: Qual By Similarity

Qual Device TXS0102DCUR 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/>

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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