12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20241211000.1
Qualification of CDAT as an additional Assembly site for select devices
Change Notification / Sample Request

Date: December 16, 2024
To: MOUSER PCN

Dear Customer:

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

20241211000.1
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
TPS7A2018PDQNR	NULL
TLC5971RGER	TLC5971RGER
TPS7A2033PDQNR	NULL

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

PCN Number:	20241211000.1	PCN Date:	December 16, 2024
Title:	Qualification of CDAT as an alternate Assembly site for select devices		
Customer Contact:	Change Management team	Dept:	Quality Services
Proposed 1st Ship Date:	March 16, 2025	Sample Requests accepted until:	January 15, 2025

***Sample requests received after** January 15, 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 Incorporated is announcing the qualification of CDAT as an additional Assembly site for set of devices listed below. Material differences between sites as follows:

Group 1 device:

	TIM	CDAT
Mount Compound	4205846	4207123
Mold compound	4208625	4222198

Group 2 device:

	CARZ	JCETJY	CDAT
Wire diam/type	1.0mil Au	1.0mil Au	0.8mil Cu
Mount Compound	441622	120402001600	4221460 + 4226215
Mold compound	441141	120903003009	4222198

Reason for Change:

Supply continuity

1) To align with world technology trends and use wiring with enhanced mechanical and electrical properties
2) Maximize flexibility within our Assembly/Test production sites.
3) Cu is easier to obtain and stock

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:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City

CARZ	CSZ	CHN	Jiangsu
JCETJY	JCE	CHN	Jiangyin
TIM	MLA	MYS	Kuala Lumpur
CDAT	**CDA**	**CHN**	**Chengdu**

Sample product shipping label (not actual product label)

Group 1 Product Affected: (C2402291)

TLC5971RGER	TLC5971RGET

Group 2 Product Affected: (C2403045)

TPS7A201825PDQNR	TPS7A20185PDQNR	TPS7A2018PDQNR	TPS7A2033PDQNR

Group 1 Qualification Results

Approve Date 03-October-2024

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: TLC5971RGER	QBS Reference: S301044APFPRG4	QBS Reference: BQ25881RGER	QBS Reference: SN65HVDA195QDRQ1	QBS Reference: SN74AXC8T245RHLR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	3/231/0	3/231/0	3/231/0	3/231/0
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	3/231/0	3/231/0	3/231/0	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	3/231/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	3/231/0	3/231/0	3/231/0	3/231/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	-	3/231/0
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	3/231/0	-	-
HTSL	A6	High Temperature Storage Life	175C	500 Hours	-	1/45/0	-	1/45/0	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	3/231/0	-

Type	#	Test Name	Condition	Duration	Qual Device: TLC5971RGER	QBS Reference: S301044APFPRG4	QBS Reference: BQ25881RGER	QBS Reference: SN65HVDA195QDRQ1	QBS Reference: SN74AXC8T245RHLR
HTOL	B1	Life Test	140C	480 Hours	-	3/231/0	1/77/0	-	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	3/2400/0	-	3/2400/0	-
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	-	-	3/228/0	-	-
WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	-	-	3/228/0	-	-
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	-	3/30/0	-
ESD	E2	ESD CDM	-	1500 Volts	-	1/3/0	1/3/0	1/3/0	-
ESD	E2	ESD HBM	-	4000 Volts	-	1/3/0	1/3/0	1/3/0	-
LU	E4	Latch-Up	Per JESD78	-	-	1/6/0	1/6/0	1/6/0	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	3/90/0	1/30/0	3/90/0	1/30/0
FTY	E6	Final Test Yield	-	-	1/1/0	-	1/1/0	-	1/1/0

QBS: Qual By Similarity, also known as Generic Data
Qual Device TLC5971RGER 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/

Group 2 Qualification Results

Approve Date 06- SEPTEMEBR -2023

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: TPS7A2050PDQNR	Product QBS Reference: TPS7A2050PDQNRM3	Process QBS Reference: TPS7A2045PDQNR	Process QBS Reference: TLV62568DBVR	Package QBS Reference: SN74LVC1G3157DSFR
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	-	-	-	-	3/231/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	-	3/231/0	3/231/0
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	3/231/0	3/231/0	3/231/0
HTOL	B1	Life Test	150C	300 Hours	-	-	2/154/0	3/231/0	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	-	3/3000/0	-
SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	-	-	3/66/0
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	-	-	3/66/0
PD	C4	Physical Dimensions	(per mechanical drawing)		-	-	-	-	3/90/0
ESD	E2	ESD CDM	-	500 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	1/6/0	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	-	-	1/30/0	1/30/0	3/90/0
FTY	E6	Final Test Yield	-	FTY	1/1/0	-	-	-	3/3/0

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/

Green/Pb-free Status: Qualified Pb-Free(SMT) and Green

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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