12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20250307002.1
Qualification of RFAB using qualified Process Technology, Die Revision, Datasheet and additional Assembly/Test site options for select devices
Change Notification / Sample Request

Date: March 10, 2025
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 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.

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.

TI values customer engagement and feedback related to TI changes. Customers should contact TI if there are questions or concerns regarding a change notification.

Sincerely,

Change Management Team
SC Business Services

20250307002.1
Change Notification / Sample Request
Attachments

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
SN74AVCH2T45DCTR	SN74AVCH2T45DCTR
SN74AVC2T45DCTR	NULL
SN74AVCH2T45DCUR	SN74AVCH2T45DCUR
SN74AVC2T45DCUR	NULL

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

PCN Number:	20250307002.1	PCN Date:	March 10, 2025
Title:	Qualification of RFAB using qualified Process Technology, Die Revision, Datasheet and additional Assembly/Test site options for select devices		
Customer Contact:	Change Management team	Dept:	Quality Services
Proposed 1st Ship Date:	June 08, 2025	Sample requests accepted until:	May 09, 2025

***Sample requests received after** May 09, 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 addition of RFAB using the qualified LBC7 process technology, die revision, data sheet and additional assembly site option for the device listed below.

Current Fab Site			Additional Fab Site		
Current Fab Site	**Process**	**Wafer Diameter**	**Additional Fab Site**	**Process**	**Wafer Diameter**
FR-BIP-1	ASLC10	200 mm	RFAB	LBC7	300 mm

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

Construction differences are as follows;

Group 1 Device (DCU)

	HNA	HFTF
Wire diam/type	0.8mil Au	0.8mil Cu
Mount compound	SID#400180	SID#A-18
Mold compound	SID#450207	SID#R-32

Group 2 Device (DCT)

	HIT	HFTF
Wire diam/type	0.8mil Au	0.8mil Cu
Mount compound	SID#RZ241C	SID#A-18
Mold compound	SID#G600K	SID#R-30
Lead finish	NiPdAu	Matte Sn

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

Qual details are provided in the Qual Data Section.

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.

TEXAS INSTRUMENTS
SN74AVC2T45
SCES531N – DECEMBER 2003 – REVISED FEBRUARY 2025

Changes from Revision M (September 2024) to Revision N (February 2025) **Page**

- Updated DCT and DDF *Thermal Information* 6

Changes from Revision L (May 2017) to Revision M (September 2024) **Page**

- Updated the numbering format for tables, figures, and cross-references throughout the document..... 1
- Added DDF package..... 1
- Deleted the *Community Resources* section 19
- Added the *Support Resources*, *Receiving Notification of Documentation Updates*, *Electrostatic Discharge Statement*, and *Glossary* sections..... 19

TEXAS INSTRUMENTS
SN74AVCH2T45
SCES582I – JULY 2004 – REVISED FEBRUARY 2025

Changes from Revision H (April 2015) to Revision I (February 2025) **Page**

- Updated the numbering format for tables, figures, and cross-references throughout the document..... 1
- Updated DCT and DCU *Thermal Information* 6
- Added the *Receiving Notifications of Documentation Updates*, *Support Resources*, *Electrostatic Discharge Caution*, and *Glossary* sections..... 20

Product Folder	Current Datasheet Number	New Datasheet Number	Link to full datasheet
SN74AVC2T45	SCES531L	**SCES531N**	http://www.ti.com/product/SN74AVC2T45
SN74AVCH2T45	SCES582H	**SCES582I**	http://www.ti.com/product/SN74AVCH2T45

Qual details are provided in the Qual Data Section.

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	Chip Site	Chip Site City

	Origin Code (20L)	Country Code (21L)	
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	**RFB**	**USA**	**Richardson**

Sample product shipping label (not actual product label)

Group 1 Product Affected: (DCU)

SN74AVC2T45DCUR	SN74AVCH2T45DCUR
SN74AVC2T45DCURG4	SN74AVCH2T45DCURG4

Group 2 Product Affected: (DCT)

SN74AVC2T45DCTR*	SN74AVCH2T45DCTR*

* G4 part numbers are available and will remain on NiPdAu flows. Please visit TI's labeling and symbolization page for more information on material designators.

Group 1 Qualification Report

Approve Date 20-NOVEMBER -2024

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN74AVC2T45DCURG4	**Qual Device: SN74AVC2T45DCUR**	Qual Device: SN74AVCH2T45DCURG4	**Qual Device: SN74AVCH2T45DCUR**	QBS Reference: SN3257QDYYRQ1	**QBS Reference: SN74AXC2T45QDCURQ1**	QBS Reference: SN74LXC2T45QDCURQ1
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	-	-	3/231/0	3/231/0	1/77/0
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	-	-	3/231/0	3/231/0	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	-	-	1/77/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	-	-	3/231/0	3/231/0	2/154/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	-	3/135/0	3/135/0	1/45/0
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	-	-	3/231/0	1/77/0
HTOL	B1	Life Test	150C	300 Hours	-	-	-	-	3/231/0	-	-
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	-
PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	-	-	3/30/0	-	1/10/0
ESD	E2	ESD CDM	-	1500 Volts	-	-	-	-	1/3/0	1/3/0	-
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	-	1/3/0
ESD	E2	ESD HBM	-	7000 Volts	-	-	-	-	-	1/3/0	-
LU	E4	Latch-Up	Per JESD78	-	1/3/0	-	1/3/0	-	1/6/0	1/6/0	1/6/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	1/30/0	1/30/0	1/30/0	-	-	-
CHAR	E5	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	-	-	-	-	3/90/0	3/90/0	3/90/0

QBS: Qual By Similarity, also known as Generic Data
Qual Device SN74AVC2T45DCURG4 is qualified at MSL1 260C
Qual Device SN74AVC2T45DCUR is qualified at MSL1 260C
Qual Device SN74AVCH2T45DCURG4 is qualified at MSL1 260C
Qual Device SN74AVCH2T45DCUR 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 20-NOVEMBER -2024

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN74AVC2T45DCTR	**Qual Device: SN74AVCH2T45DCTR**	QBS Reference: SN3257QDYYRQ1	**QBS Reference: OPA2991QDGKRQ1**	QBS Reference: SN74LVC2T45DCTR	**QBS Reference: CAVC2T45TDCURQ1**
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	3/231/2	-	1/77/0
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	-	-	-	-	-	1/77/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	3/231/0	3/231/0	3/231/0	1/77/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	3/135/0	-	3/231/0	-
HTSL	A6	High Temperature Storage Life	175C	500 Hours	-	-	-	-	-	1/45
HTSL	A6	High Temperature Storage Life	175C	630 Hours	-	-	-	3/135/0	-	-
HTOL	B1	Life Test	150C	300 Hours	-	-	3/231/0	-	-	1/77/0
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	-	-	-	-	-
PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	3/30/0	3/30/0	-	1/10/0
ESD	E2	ESD CDM	-	1500 Volts	-	-	1/3/0	-	-	-
ESD	E2	ESD CDM	-	250 Volts	1/3/0	-	-	-	-	-
ESD	E2	ESD CDM	-	500 Volts	-	-	-	-	-	1/3/0
ESD	E2	ESD HBM	-	2000 Volts	-	-	1/3/0	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	-	3/90/0

QBS: Qual By Similarity, also known as Generic Data

Qual Device SN74AVC2T45DCTR is qualified at MSL1 260C

Qual Device SN74AVCH2T45DCTR 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/

[1]-One unit failed Vio due to bad BI socket contact
see 8D attached to eQDB.
[2]-Three units failed Vio due to bad BI socket contact
one EOS failure due to reverse-insertion - discounted
see 4C & 8D attached to eQDB.

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