



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20240613002.1

**Qualification of RFAB using qualified Process Technology, Die Revision, Datasheet update and additional Assembly 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



20240613002.1
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
SN74HC4851PWR	NULL
SN74HC4852PWR	NULL
SN74HC4852PWRE4	NULL

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

PCN Number:	20240613002.1	PCN Date:	June 13, 2024																		
Title:	Qualification of RFAB using qualified Process Technology, Die Revision, Datasheet update and additional Assembly 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:																					
<input type="checkbox"/> Assembly Site	<input checked="" type="checkbox"/> Design	<input type="checkbox"/> Wafer Bump Material																			
<input checked="" type="checkbox"/> Assembly Process	<input checked="" type="checkbox"/> Data Sheet	<input type="checkbox"/> Wafer Bump Process																			
<input checked="" type="checkbox"/> Assembly Materials	<input type="checkbox"/> Part number change	<input checked="" type="checkbox"/> Wafer Fab Site																			
<input type="checkbox"/> Mechanical Specification	<input type="checkbox"/> Test Site	<input checked="" type="checkbox"/> Wafer Fab Material																			
<input checked="" type="checkbox"/> Packing/Shipping/Labeling	<input type="checkbox"/> Test Process	<input checked="" type="checkbox"/> 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 BOM options for the devices listed below.																					
<table border="1"> <thead> <tr> <th colspan="3">Current Fab Site</th> <th colspan="3">Additional Fab Site</th> </tr> <tr> <th>Current Fab Site</th> <th>Process</th> <th>Wafer Diameter</th> <th>Additional Fab Site</th> <th>Process</th> <th>Wafer Diameter</th> </tr> </thead> <tbody> <tr> <td>SFAB</td> <td>EPIC1S2</td> <td>150 mm</td> <td>RFAB</td> <td>LBC7</td> <td>300 mm</td> </tr> </tbody> </table>			Current Fab Site			Additional Fab Site			Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter	SFAB	EPIC1S2	150 mm	RFAB	LBC7	300 mm	
Current Fab Site			Additional Fab Site																		
Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter																
SFAB	EPIC1S2	150 mm	RFAB	LBC7	300 mm																
The die was also changed as a result of the process change.																					
Construction differences are as follows:																					
	Current	Proposed																			
Wire type/diam	0.96mil Cu	0.8mil Cu																			
Mount compound	EY1000063	4147858																			
Mold compound	EN2000508	4211471																			
Lead finish	Matte Sn	NiPdAu																			
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.																					
		SN74HC4851 <small>SCLS542C – SEPTEMBER 2003 – REVISED JUNE 2024</small>																			
Changes from Revision B (January 2004) to Revision C (June 2024)		Page																			
• Updated the numbering format for tables, figures, and cross-references throughout the document.....		1																			
• Changed VCC ABS Max from 7V to 6V.....		3																			
• Changed R0JA.....		3																			
• Recommended supply changed from 6V to 5.5V and all test conditions using 6V were removed.....		4																			
• Changed ttran, tON, tOFF parameters.....		6																			
• Added Mechanical, Packaging, and Orderable Information section.....		12																			
		SN74HC4852 <small>SCLS573A – MARCH 2004 – REVISED JUNE 2024</small>																			

Changes from Revision * (March 2004) to Revision A (June 2024)
Page

- Updated the numbering format for tables, figures, and cross-references throughout the document..... 1
- Changed VCC ABS Max from 7V to 6V..... 3
- Changed R0JA..... 3
- Recommended supply changed from 6V to 5.5V and all test conditions using 6V were removed..... 4
- Changed tpd, ttran, tON, tOFF parameters..... 6

Product Folder	Current Datasheet Number	New Datasheet Number	Link to full datasheet
SN74HC4851	SCLS542B	SCLS542C	http://www.ti.com/product/SN74HC4851
SN74HC4852	SCLS573	SCLS573A	http://www.ti.com/product/SN74HC4852

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
<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> 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
SH-BIP-1	SHE	USA	Sherman
RFAB	RFB	USA	Richardson

Die Rev:
Current
New

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

Sample product shipping label (not actual product label):


Product Affected:

SN74HC4851PWR	SN74HC4852PWR	SN74HC4852PWRE4
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For alternate parts with similar or improved performance, please visit the product page on [TI.com](http://ti.com)

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN74HC4851PWR	Qual Device: SN74HC4852PWR	QBS Reference: TMP235AEDBZRQ1	QBS Reference: TMUX1308QPWRQ1	QBS Reference: TMUX1309QPWRQ1	QBS Reference: SN74HC4851QPWRQ1	QBS Reference: SN74HC4852QPWRQ1
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	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	-	-	-	-	1/45/0	-	-
HTSL	A6	High Temperature Storage Life	150C	2000 Hours	-	-	3/135/0	-	-	-	-
HTSL	A6	High Temperature Storage Life	175C	500 Hours	-	-	-	3/135/0	-	-	-
HTOL	B1	Life Test	150C	1000 Hours	-	-	3/231/0	-	-	-	-
HTOL	B1	Life Test	150C	300 Hours	-	-	-	3/231/0	1/77/0	-	-
ELFR	B2	Early Life Failure Rate	150C	48 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	-	-	-

Type	#	Test Name	Condition	Duration	Qual Device: SN74HC4851PWR	Qual Device: SN74HC4852PWR	QBS Reference: TMP235AEDBZRQ1	QBS Reference: TMUX1308QPWRQ1	QBS Reference: TMUX1309QPWRQ1	QBS Reference: SN74HC4851QPWRQ1	QBS Reference: SN74HC4852QPWRQ1
PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	3/30/0	3/30/0	-	1/10/0	-
ESD	E2	ESD CDM	-	2000 Volts	-	-	1/3/0	1/3/0	1/3/0	1/3/0	-
ESD	E2	ESD CDM	-	500 Volts	-	-	1/3/0	-	-	1/3/0	-
ESD	E2	ESD HBM	-	2000 Volts	-	-	1/3/0	-	-	1/3/0	1/3/0
ESD	E2	ESD HBM	-	4000 Volts	-	-	-	-	1/3/0	-	-
ESD	E2	ESD HBM	-	5000 Volts	-	-	-	1/3/0	-	-	-
LU	E4	Latch-Up	Per JESD78	-	-	-	1/6/0	1/6/0	1/6/0	1/3/0	1/3/0
CHAR	E5	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	-	-	3/90/0	3/90/0	3/90/0	1/15/0 ¹	1/15/0 ²

- QBS: Qual By Similarity
- Qual Device SN74HC4851PWR is qualified at MSL1 260C
- Qual Device SN74HC4852PWR 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-2310-062

[1]-15 units sample size for each version due to similarity of product.
[2]-15 units sample size for each version due to similarity of product.

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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