



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

**PCN#20240514001.1**

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

**Date:** May 14, 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

**20240514001.1**  
**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.

<b>DEVICE</b>	<b>CUSTOMER PART NUMBER</b>
SN74LVC00APWR	NULL
SN74LVC00APWRG4	NULL
SN74LVC00ARGYR	NULL
SN74LVC02APWR	NULL
SN74LVC02ARGYR	NULL
SN74LVC08APWR	NULL
SN74LVC08APWRG4	NULL
SN74LVC08ARGYR	NULL
SN74LVC125APWR	NULL
SN74LVC125APWRG4	NULL
SN74LVC32APWR	NULL
SN74LVC32APWRG4	NULL
SN74LVC32ARGYR	NULL

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

<b>PCN Number:</b>	20240514001.1	<b>PCN Date:</b>	May 14, 2024																				
<b>Title:</b>	Qualification of RFAB using qualified Process Technology, Die Revision and additional Assembly site/BOM options for select devices																						
<b>Customer Contact:</b>	Change Management Team	<b>Dept:</b>	Quality Services																				
<b>Proposed 1<sup>st</sup> Ship Date:</b>	August 12, 2024	<b>Sample requests accepted until:</b>	June 13, 2024*																				
*Sample requests received after June 13, 2024 will not be supported.																							
<b>Change Type:</b>																							
<input checked="" type="checkbox"/> Assembly Site	<input checked="" type="checkbox"/> Design	<input type="checkbox"/> Wafer Bump Material																					
<input checked="" type="checkbox"/> Assembly Process	<input 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																					
<b>PCN Details</b>																							
<b>Description of Change:</b>																							
Texas Instruments is pleased to announce the qualification of its RFAB fabrication facility as an additional Wafer Fab option in addition to a new Assembly Site (CDAT, TFME) options for the devices listed in the "Product Affected" section.																							
<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>FR-BIP-1</td><td>ASLNONC10</td><td>200mm</td><td>RFAB</td><td>LBC7</td><td>300mm</td></tr> </tbody> </table>			Current Fab Site			Additional Fab site			Current Fab Site	Process	Wafer Diameter	Additional Fab site	Process	Wafer Diameter	FR-BIP-1	ASLNONC10	200mm	RFAB	LBC7	300mm			
Current Fab Site			Additional Fab site																				
Current Fab Site	Process	Wafer Diameter	Additional Fab site	Process	Wafer Diameter																		
FR-BIP-1	ASLNONC10	200mm	RFAB	LBC7	300mm																		
The die was also changed as a result of the process change.																							
Construction differences are as follows:																							
<b>Group 1 Device:</b>																							
	<b>MLA</b>	<b>MLA (new)</b>																					
Bond wire composition, diameter	Cu, 0.96 mil	Cu, 0.8 mil																					
<b>Group 2 Device:</b>																							
	<b>ASESH</b>	<b>MLA</b>	<b>TFME</b>																				
Bond wire composition, diameter	Au, 0.7 mil Cu, 1.0, 0.8mil	Cu, 0.96 mil	Cu, 0.8 mil																				
Mount Compound	EY1000063	4147858	A-03																				
Mold Compound	EN2000508	4211471	R-31																				
Lead finish	Matte Sn	NiPdAu	Matte Sn																				
ECAT	G3	G4	G3																				
<b>Group 3 Device:</b>																							
	<b>CRS</b>	<b>MLA</b>	<b>CDAT</b>																				
Bond wire composition, diameter	Au, 1.0 mil Cu, 1.0mil	Cu, 0.96 mil	Cu, 0.8 mil																				
Mount Compound	435143	4205846	4207123																				
Mold Compound	441086	4208625	4222198																				
<b>Reason for Change:</b>																							

Supply Continuity			
<b>Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):</b>			
None			
<b>Impact on Environmental Ratings</b>			
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.			
<b>RoHS</b>	<b>REACH</b>	<b>Green Status</b>	<b>IEC 62474</b>
<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change
<b>Changes to product identification resulting from this PCN:</b>			
<b>Fab Site Information:</b>			
Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
FR-BIP-1	TID	DEU	Freising
<b>RFAB</b>	<b>RFB</b>	<b>USA</b>	<b>Richardson</b>
<b>Die Rev:</b>			
<b>Current</b>	<b>New</b>		
Die Rev [2P]	<b>Die Rev [2P]</b>		
K	<b>A</b>		
<b>Assembly Site Information:</b>			
Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
MLA	MLA	MYS	Kuala Lumpur
ASESH	ASH	CHN	Shanghai
CRS	CRS	MYS	Jelapang, Ipoh
<b>CDAT</b>	<b>CDA</b>	<b>CHN</b>	<b>Chengdu</b>
<b>TFME</b>	<b>NFM</b>	<b>CHN</b>	<b>Chongchuan</b>
Sample product shipping label (not actual product label):			
<b>Group 1 Product Affected: Fab site, Die rev, BOM</b>			
SN74LVC00APWR	SN74LVC08APWR	SN74LVC125APWRG4	
SN74LVC00APWRG4	SN74LVC08APWRG4	SN74LVC32APWR	
SN74LVC02APWR	SN74LVC125APWR	SN74LVC32APWRG4	
<b>Group 2 Product Affected: Fab site, Die rev, Assembly site</b>			
SN74LVC00APWR	SN74LVC08APWR	SN74LVC125APWRG3	
SN74LVC02APWR	SN74LVC125APWR	SN74LVC32APWR	
<b>Group 3 Product Affected: Fab site, Die rev, Assembly site</b>			
SN74LVC00ARGYR	SN74LVC02ARGYR	SN74LVC08ARGYR	SN74LVC32ARGYR

# Group 1 Qualification Report

Approve Date 07-MAY -2024

## Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN74LVC125APWR	Qual Device: SN74LVC02APWR	QBS Reference: SN74LVC02YYRQ1	QBS Reference: SN74HC674QPWRL	QBS Reference: SN74LVC11AWBQARQ1	QBS Reference: SN74LVC125AWBQARQ1	QBS Reference: SN74LVC11APWRQ1	QBS Reference: SN74LVC02AWBQARQ1	QBS Reference: SN74LVC132APWR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	3/231/0	1/77/0	-	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	-	1/77/0	-	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	3/231/0	3/231/0	1/77/0	-	1/77/0	-	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	3/135/0	3/135/0	1/45/0	-	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	125C	48 Hours	-	-	-	3/2400/0	-	-	-	-	-
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	1/15/0	-	-	-	-
PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	3/30/0	3/30/0	1/10/0	-	1/10/0	-	-
ESD	E2	ESD CDM	-	1500 Volts	-	-	1/3/0	1/3/0	1/3/0	1/3/0	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	1/3/0	1/3/0	1/3/0	1/3/0	-
ESD	E2	ESD HBM	-	2000 Volts	-	-	1/3/0	1/3/0	1/3/0	1/3/0	1/3/0	1/3/0	-
LU	E4	Latch-Up	Per JESD78	-	-	-	1/6/0	1/6/0	1/6/0	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
CHAR	E5	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	-	-	3/90/0	3/90/0	3/90/0	1/30/0	1/30/0	1/30/0	-

QBS: Qual By Similarity

Qual Device SN74LVC125APWR is qualified at MSL1 260C

Qual Device SN74LVC02APWR 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 07-MAY -2024

### Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN74LVC02APWR	Qual Device: SN74LVC125APWR	QBS Reference: SN3257QYYR01	QBS Reference: SN74HCS74PWR	QBS Reference: SN74LVC11AWBQAR01	QBS Reference: SN74LVC125AWBQAR01	QBS Reference: SN74LVC02AWBQAR01	QBS Reference: SN74LVC132APWR
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	-	-	-	-	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	3/231/0	1/77/0	-	-	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	3/231/0	3/231/0	1/77/0	-	-	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	3/135/0	3/231/0	1/45/0	-	-	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	-	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	-	-	-	-	-
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)	-	-	-	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	-	-	-	-
PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	3/90/0	-	1/10/0	-	-	-
ESD	E2	ESD CDM	-	1500 Volts	-	-	1/3/0	-	-	-	-	-
ESD	E2	ESD CDM	-	250 Volts	1/3/0	-	-	3/5/0	-	-	-	1/3/0
ESD	E2	ESD CDM	-	500 Volts	-	-	-	-	1/3/0	1/3/0	1/3/0	-
ESD	E2	ESD HBM	-	2000 Volts	-	-	1/3/0	-	1/3/0	1/3/0	1/3/0	-
LU	E4	Latch-Up	Per JESD78	-	-	-	1/6/0	-	1/6/0	1/6/0	1/6/0	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	1/30/0	-	3/90/0	-	-	-	1/30/0
CHAR	E5	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	-	-	3/90/0	-	3/90/0	1/30/0	1/30/0	-

QBS: Qual By Similarity

Qual Device SN74LVC02APWR is qualified at MSL1 260C

Qual Device SN74LVC125APWR 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 3 Qualification Report

Approve Date 29-APRIL -2024

### Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN74LVC125ARGYR	Qual Device: SN74LVC02ARGYR	QBS Reference: SN32570QVYR01	QBS Reference: TS3A5017Q8GYR01	QBS Reference: TXS0104FEGYR	QBS Reference: TXV01080WRCYR01	QBS Reference: SN74LVC125ABQ4R01	QBS Reference: SN74LVC02ABQ4R
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	3/231/0	-	1/77/0	-	-
UHA	A3	Autoclave	121C/15psig	96 Hours	-	-	3/231/0	3/231/0	-	-	-	-
UHA	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	-	1/77/0	-	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	-	-	1/77/0	1/77/0	-	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	-	-	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	-	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	1/3/0	-	-	-	-
ESD	E2	ESD CDM	-	250 Volts	-	-	-	-	1/3/0	-	-	1/3/0
ESD	E2	ESD CDM	-	500 Volts	-	-	-	-	-	1/3/0	1/3/0	-
ESD	E2	ESD HBM	-	1000 Volts	-	-	-	-	1/3/0	-	-	1/3/0
ESD	E2	ESD HBM	-	2000 Volts	-	-	1/3/0	1/3/3	-	1/3/0	1/3/0	-
LU	E4	Latch-Up	Per JESD78	-	-	-	1/6/0	1/6/0	1/3/0	1/6/0	1/6/0	1/3/0
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	1/30/0	-

QBS: Qual By Similarity

Qual Device SN74LVC125ARGYR is qualified at MSL1 260C

Qual Device SN74LVC02ARGYR 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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