



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20251104000.1A

**Qualification of RFAB using qualified Process Technology, Die Revision, Datasheet,
and additional Assembly Site (CDAT & TIEMA) & BOM options for select devices
Change Notification / Sample Request**

The rev A is being issued to correct the Datasheet revision history.

Date: December 18, 2025

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 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, 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 60 day sample request window, customers will still have 30-days to complete their evaluation regardless of the proposed 1st ship date.

Changes outlined in this notification underscore our commitment to product longevity and supply continuity, as well as our continued efforts to transition to newer, more efficient manufacturing processes and technologies. Specifically, this particular notification is related to TI's multiyear transition plan for our two remaining 150-millimeter production lines (DFAB in Dallas, Texas, and SFAB in Sherman, Texas). SFAB closure activities are expected to begin by the end of 2025. DFAB will remain open with a smaller set of 200mm technologies and GaN.

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.

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

Change Management Team
SC Business Services

20251104000.1A
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
SN74LVC1G06DCKR	SN74LVC1G06DCKR
SN74LVC1G17DCKR	SN74LVC1G17DCKR
SN74LVC1G14DCKR	SN74LVC1G14DCKR
SN74LVC1G34DCKR	NULL
SN74LVC1G07DCKR	SN74LVC1G07DCKR
SN74LVC1G04DCKR	SN74LVC1G04DCKR

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

PCN Number:	20251104000.1A	PCN Date:	December 18, 2025																		
Title:	Qualification of RFAB using qualified Process Technology, Die Revision, Datasheet, and additional Assembly Site (CDAT & TIEMA) & BOM options for select devices																				
Customer Contact:	Change Management Team	Dept:	Quality Services																		
Proposed 1st Ship Date:	March 18, 2026	Sample requests accepted until:	February 16, 2026*																		
*Sample requests received after February 16, 2026 will not be supported.																					
Change Type:																					
<input checked="" type="checkbox"/>	Assembly Site	<input checked="" type="checkbox"/>	Design																		
<input checked="" type="checkbox"/>	Assembly Process	<input checked="" type="checkbox"/>	Data Sheet																		
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change																		
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site																		
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process																		
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Material																		
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Process																		
<input type="checkbox"/>		<input checked="" type="checkbox"/>	Wafer Fab Site																		
<input type="checkbox"/>		<input checked="" type="checkbox"/>	Wafer Fab Material																		
<input type="checkbox"/>		<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 using the LBC300 qualified process technology as an additional Wafer Fab option in addition to an Assembly Site/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>FFAB</td> <td>ASLC10 & ASLnonC10</td> <td>200 mm</td> <td>RFAB</td> <td>LBC9PLV</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	FFAB	ASLC10 & ASLnonC10	200 mm	RFAB	LBC9PLV	300 mm	
Current Fab Site			Additional Fab Site																		
Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter																
FFAB	ASLC10 & ASLnonC10	200 mm	RFAB	LBC9PLV	300 mm																
	Current	New																			
Probe Site	FFAB	None																			
The die was also changed as a result of the process change.																					
Die Rev [2P]	Die Rev [2P]																				
D,G	A																				
Construction differences are as follows:																					
	Current Site	Current Site	Current Site	Current Site	Additional Site	Additional Site															
Assembly Site	ASEWH	HFTF	HNA	TFME	CDAT	TIEMA															
Wire diam/type	Au 1.0 mil Cu 0.8 mil	Cu 1.0 mil	Au 0.6 mil	Au 0.8 mil	Cu 0.8 mil	Cu 0.8 mil															
Mold Compound	SID#4020039A1	SID#R-27	SID#450179	SID#R-07	4222198	4222198															
Mount Compound	SID#1120999A2	SID# A-03	SID#400180	SID# A-03	4207123	4207123															
Symbolization	Same	Same	Same	Same	Additional	Additional															
Final Wafer Thickness	7.5 mils	7.5 mils	7.5 mils	7.5 mils	6.0 mils	7.5 mils															
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.

Changes from Revision AE (June 2025) to Revision AF (October 2025)	Page
• Changed Junction-to-ambient thermal resistance value for DCK package from: 229°C/W to: 371.0°C/W	5
• Changed Junction-to-case (top) thermal resistance value for DCK package from: 93°C/W to: 297.5°C/W	5
• Changed Junction-to-board thermal resistance value for DCK package from: 65°C/W to: 258.6°C/W	5
• Changed Junction-to-top characterization value for DCK package from: 2°C/W to: 195.6°C/W	5
• Changed Junction-to-board characterization value for DCK package from: 64°C/W to: 256.2°C/W	5

Changes from Revision AA (June 2025) to Revision AB (October 2025)	Page
• Changed Junction-to-ambient thermal resistance value for DCK package from: 276.1°C/W to: 371.10°C/W ...	5
• Changed Junction-to-case (top) thermal resistance value for DCK package from: 178.9°C/W to: 297.5°C/W ..	5
• Changed Junction-to-board thermal resistance value for DCK package from: 70.9°C/W to: 258.2°C/W	5
• Changed Junction-to-top characterization value for DCK package from: 47°C/W to: 195.6°C/W	5
• Changed Junction-to-board characterization value for DCK package from: 69.3°C/W to: 256.2°C/W	5

Changes from Revision AF (June 2025) to Revision AG (October 2025)	Page
• Changed Junction-to-ambient thermal resistance value for DCK package from: 278°C/W to: 371.0°C/W	5
• Changed Junction-to-case (top) thermal resistance value for DCK package from: 93°C/W to: 297.5°C/W	5
• Changed Junction-to-board thermal resistance value for DCK package from: 65°C/W to: 258.6°C/W	5
• Changed Junction-to-top characterization value for DCK package from: 2°C/W to: 195.6°C/W.....	5
• Changed Junction-to-board characterization value for DCK package from: 64°C/W to: 256.2°C/W.....	5

Changes from Revision Z (June 2025) to Revision AA (October 2025)	Page
• Changed Junction-to-ambient thermal resistance value for DCK package from: 276.1°C/W to: 371.0°C/W	6
• Changed Junction-to-case (top) thermal resistance value for DCK package from: 178.9°C/W to: 297.5°C/W..	6
• Changed Junction-to-board thermal resistance value for DCK package from: 70.9°C/W to: 258.6°C/W.....	6
• Changed Junction-to-top characterization value for DCK package from: 47.0°C/W to: 195.6°C/W.....	6
• Changed Junction-to-board characterization value for DCK package from: 69.3°C/W to: 256.2°C/W.....	6

previous:

Changes from Revision X (June 2025) to Revision Y (October 2025)	Page
• Changed Junction-to-ambient thermal resistance value for DCK package from: 229°C/W to: 357.1°C/W	5
• Changed Junction-to-case (top) thermal resistance value for DBV package from: 164°C/W to: 263.7°C/W.....	5
• Changed Junction-to-board thermal resistance value for DBV package from: 62°C/W to: 264.4°C/W.....	5
• Changed Junction-to-top characterization value for DBV package from: 44°C/W to: 195.6°C/W.....	5
• Changed Junction-to-board characterization value for DBV package from: 62°C/W to: 262.2°C/W.....	5

Correction:

Changes from Revision X (June 2025) to Revision Y (October 2025)	Page
• Changed Junction-to-ambient thermal resistance value for DCK package from: 280°C/W to: 371.0°C/W	5
• Changed Junction-to-case (top) thermal resistance value for DCK package from: 66°C/W to: 297.5°C/W.....	5
• Changed Junction-to-board thermal resistance value for DCK package from: 67°C/W to: 258.6°C/W.....	5
• Changed Junction-to-top characterization value for DCK package from: 2°C/W to: 195.6°C/W.....	5
• Changed Junction-to-board characterization value for DCK package from: 66°C/W to: 256.2°C/W.....	5

Changes from Revision N (June 2025) to Revision O (October 2025)
Page

- Changed Junction-to-ambient thermal resistance value for DCK package from: 278°C/W to: 371.0°C/W 5
- Changed Junction-to-case (top) thermal resistance value for DCK package from: 93°C/W to: 297.5°C/W..... 5
- Changed Junction-to-board thermal resistance value for DCK package from: 65°C/W to: 258.6°C/W..... 5
- Changed Junction-to-top characterization value for DCK package from: 2°C/W to: 195.6°C/W..... 5
- Changed Junction-to-board characterization value for DCK package from: 64°C/W to: 256.2°C/W..... 5

Product Folder	Current Datasheet Number	New Datasheet Number	Link to full datasheet
SN74LVC1G04	SCES214AE	SCES214AF	http://www.ti.com/product/SN74LVC1G04
SN74LVC1G06	SCES295AA	SCES295AB	http://www.ti.com/product/SN74LVC1G06
SN74LVC1G07	SCES296AF	SCES296AG	http://www.ti.com/product/SN74LVC1G07
SN74LVC1G14	SCES218Z	SCES218AA	http://www.ti.com/product/SN74LVC1G14
SN74LVC1G17	SCES351X	SCES351Y	http://www.ti.com/product/SN74LVC1G17
SN74LVC1G34	SCES519N	SCES519O	http://www.ti.com/product/SN74LVC1G34

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 200-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):

Any differences/changes between the ASLC10 & ASLnonC10 die and LBC9PLV die have been made in the data sheet using "Legacy silicon" ASLC10 & ASLnonC10 and "New silicon" (LBC9PLV).

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
FFAB	TID	DEU	Freising
RFAB	RFB	USA	Richardson

Assembly/Test Site Information:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
HFTF	HFT	CN	Heifei
TFME	NFM	CHN	Economic Development Zone
UTL2	NS2	THA	Bangpakong,

			Chachoengsao
CDAT	CDA	CHN	Chengdu
TIEMA	CU6	MYS	Melaka

Sample product shipping label (not actual product label):





MADE IN: Malaysia
2DC: 2Q:

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

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

(1P) SN74LS07NSR
(Q) 2000 (D) 0336
(31T) LOT: 3959047MLA
(4W) TKY (1T) 7523483SI2
(P)
(2P) REV: (V) 0033317
(20L) CS0: SHE (21L) CC0: USA
(22L) AS0: MLA (23L) AC0: MYS

Product Affected:

SN74LVC1G04DCKR	SN74LVC1G06DCKR	SN74LVC1G07DCKR	SN74LVC1G14DCKR
SN74LVC1G17DCKR	SN74LVC1G34DCKR		

Qualification Report

Approve Date 22-SEPTEMBER-2025

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: SN74LVC1G04DCKR	Qual Device: SN74LVC1G07DCKR	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: TXS0101QDCKRQ1	QBS Reference: SN74LVC1G16DCKRQ1
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	3/135/0	1/45/0
HTOL	B1	Life Test	125C	1000 Hours	-	-	3/231/0	3/231/0	-
HTOL	B1	Life Test	150C	300 Hours	-	-	-	-	1/77/0
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	3/2400/0	-	-
SD	C3	PB Solderability	Precondition w/155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	1/15/0	-	-

Type	#	Test Name	Condition	Duration	Qual Device: SN74LVC1G04DCKRQ1	Qual Device: SN74LVC1G07DCKRQ1	QBS Reference: SN74HCS74QPWRQ1	QBS Reference: TXS0101QDCKRQ1	QBS Reference: SN74LVC1G16DCKRQ1
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	3/30/0	1/10/0
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
LU	E4	Latch-Up	Per JESD78	-	1/3/0	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	-	-	-
CHAR	E5	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	-	-	3/90/0	3/90/0	1/30/0

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device SN74LVC1G04DCKR is qualified at MSL1 260C
- Qual Device SN74LVC1G07DCKR 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 0.7 eV : 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 0.7 eV : 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-2411-055

**Automotive Qualification Summary
(As per AEC and JEDEC Guidelines)**

**Q006 SOT-SC70 at TIEMA
Approve Date 12-October-2025**

Attributes	Qual Device: SN74LVC1G07QDCKRQ1	Qual Device: SN74LVC2G17QDCKRQ1	QBS Process Reference: SN74AUP1T34QDCKRQ1	QBS Process Reference: SN74LVC1G07QDCKRQ1	QBS Process Reference: SN74LVC2G14IDCKRQ1
Automotive Grade Level	Grade 1	Grade 1	Grade 1	Grade 1	Grade 1
Operating Temp Range (C)	-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125
Product Function	Logic	Logic	Logic	Logic	Logic
Wafer Fab Supplier	FR-BIP-1	FR-BIP-1	MH8	FR-BIP-1	FR-BIP-1
Assembly Site	TIEMA	TIEMA	HFTFAT	HFTFAT	HFTFAT
Package Group	SOT	SOT	SOT	SOT	SOT
Package Designator	DCK	DCK	DCK	DCK	DCK
Pin Count	5	6	5	5	6

Qualification Results

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

Type	#	Test Spec	Mn Lot Qty	SS / Lot	Test Name	Condition	Duration	Qual Device: SN74LVC1G07QDCKRQ1	Qual Device: SN74LVC2G17QDCKRQ1	QBS Reference: SN74AUP1T34QDCKRQ1	QBS Reference: SN74LVC1G07QDCKRQ1	QBS Reference: SN74LVC2G14IDCKRQ1
Test Group A - Accelerated Environment Stress Tests												
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL1 260C	-	3/0/0	-	-	-	-
HAST	A2.1	JEDEC JESD22-A110	3	77	Biased HAST	130C/85% RH	96 Hours	3/231/0	-	-	-	-

Type	#	Test Spec	Min Lot Qty	SS / Lot	Test Name	Condition	Duration	Qual Device: SN74LVC1607QDCRQ1	Qual Device: SN74LVC2617QDCRQ1	QBS Reference: SN74AUP1T34QDCRQ1	QBS Reference: SN74LVC1607QDCRQ1	QBS Reference: SN74LVC2614QDCRQ1
HAST	A2.2	JEDEC JESD22-A110	3	70	Biased HAST	130C/85% RH	192 Hours	3/231/0	-	-	-	-
TC	A4.1	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle	-65C/150 C	500 Cycles	3/231/0	-	-	-	-
TC	A4.2	JEDEC JESD22-A104 and Appendix 3	3	70	Temperature Cycle	-65C/150 C	1000 Cycles	3/231/0	-	-	-	-
HTSL	A6.1	JEDEC JESD22-A103	3	45	High Temperature Storage Life	175C	500 Hours	3/135/0	-	-	-	-
HTSL	A6.2	JEDEC JESD22-A103	3	44	High Temperature Storage Life	175C	1000 Hours	3/135/0	-	-	-	-
Test Group C - Package Assembly Integrity Tests												
WBS	C1	AEC Q100-001	1	30	Wire Bond Shear	Minimum of 5 devices, 30 wires Cpk>1.67	Wires	1/50/0	1/30/0	1/30/0	1/30/0	1/30/0
WBP	C2	MIL-STD-883 Method 2011	1	30	Wire Bond Pull	Minimum of 5 devices, 30 wires Cpk>1.67	Wires	1/50/0	1/30/0	1/30/0	1/30/0	1/30/0

• QBS: Qual By Similarity, also known as Generic Data
 • Qual Device SN74LVC1607QDCRQ1 is qualified at MSL1260C
 • Qual Device SN74LVC2617QDCRQ1 is qualified at MSL1260C

• 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 JEDEC47 : -55C/125C/700 Cycles and -65C/150C/500 Cycles

Ambient Operating Temperature by Automotive Grade Level:

• Grade 0 (or E) : -40C to +150C
 • Grade 1 (or Q) : -40C to +125C
 • Grade 2 (or T) : -40C to +105C
 • Grade 3 (or J) : -40C to +85C

E1 (TEST): Electrical test temperatures of Qual samples (High temperature according to Grade level):

• Room/Hot/Cold : HTOL, ED

• Room/Hot : THB / HAST, TC / PTC, HTSL, ELFR, ESD & LU
 • Room : AC/HAST

Quality and Environmental data is available at TI's external Web site: <http://www.ti.com/>

TI Qualification ID: R-CHG-2410-028

Automotive Qualification Summary
(As per AEC-Q100 Rev. J and JEDEC Guidelines)

Project Carbon: TIEM DCK
Approve Date 12-October-2025

Product Attributes

Attributes	Qual Device: SN74LVC1607QDCRQ1	Qual Device: SN74LVC2617QDCRQ1	QBS Process Reference: SN74AUP1T34QDCRQ1	QBS Process Reference: SN74LVC1607QDCRQ1	QBS Process Reference: SN74LVC2614QDCRQ1
Automotive Grade Level	Grade 1	Grade 1	Grade 1	Grade 1	Grade 1
Operating Temp Range (C)	-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125
Product Function	Logic	Logic	Logic	Logic	Logic
Wafer Fab Supplier	FR-BIP-1	FR-BIP-1	MH8	FR-BIP-1	FR-BIP-1
Assembly Site	TIEMA	TIEMA	HFTFAT	HFTFAT	HFTFAT
Package Group	SOT	SOT	SOT	SOT	SOT
Package Designator	DCK	DCK	DCK	DCK	DCK
Pin Count	5	6	5	5	6

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device SN74LVC1607QDCRQ1 is qualified at MSL1 260C
- Qual Device SN74LVC2617QDCRQ1 is qualified at MSL1 260C

Qualification Results

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

Type	#	Test Spec	Min Lot Qty	SS / Lot	Test Name	Condition	Duration	Qual Device: SN74LVC1607QDCRQ1	Qual Device: SN74LVC2617QDCRQ1	QBS Process Reference: SN74AUP1T34QDCRQ1	QBS Process Reference: SN74LVC1607QDCRQ1	QBS Process Reference: SN74LVC2614QDCRQ1
Test Group A - Accelerated Environment Stress Tests												
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL1 260C	-	3/0/0	-	3/0/0	-	3/0/0

Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name	Condition	Duration	Qual Device: SN74LVC1607QDCKRQ1	Qual Device: SN74LVC2G170DCKRQ1	QBS Process Reference: SN74AUP1T34QDCKRQ1	QBS Process Reference: SN74LVC1607QDCKRQ1	QBS Process Reference: SN74LVC2G140DCKRQ1
PC	A1	JED EC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL2 260C	-	-	-	-	2100	-
HAST	A2	JED EC JESD22-A110	3	77	Biased HAST	130C/85%RH	96 Hours	3/231/0	-	3/231/0	2/1540	3/231/0
ACIUHAST	A3	JED EC JESD22-A102/JED EC JESD22-A118	3	77	Autoclave	121C/15psig	96 Hours	-	-	3/231/0	2/1540	3/231/0
ACIUHAST	A3	JED EC JESD22-A102/JED EC JESD22-A118	3	77	Unbiased HAST	130C/85%RH	96 Hours	3/231/0	-	-	-	-
TC	A4	JED EC JESD22-A104 and Appendix 3	3	77	Temperature Cycle	-65C/150C	500 Cycles	3/231/0	-	3/231/0	2/1540	3/231/0
HTSL	A6	JED EC JESD22-A103	1	45	High Temperature Storage Life	150C	1000 Hours	-	-	1/45/0	1/450	1/450
HTSL	A6	JED EC JESD22-A103	1	45	High Temperature Storage Life	175C	500 Hours	3/135/0	-	-	-	-
Test Group B - Accelerated Lifetime Simulation Tests												
HTOL	B1	JED EC JESD22-A108	3	77	Life Test	125C	1000 Hours	-	-	1/77/0	1/770	1/770
Test Group C - Package Assembly Integrity Tests												
WBS	C1	AEC Q100-001	1	30	Wire Bond Shear	Minimum of 5 devices, 30 wires Cpk>1.67	Wires	1/30/0	1/30/0	1/30/0	1/300	1/300
WBP	C2	MIL-STD883 Method 2011	1	30	Wire Bond Pull	Minimum of 5 devices, 30 wires Cpk>1.67	Wires	1/30/0	1/30/0	1/30/0	1/300	1/300
SD	C3	JED EC J-STD-002	1	15	PB Solderability	>95% Lead Coverage	-	-	-	1/15/0	-	1/150
SD	C3	JED EC J-STD-002	1	15	PB-Free Solderability	>95% Lead Coverage	-	-	-	1/15/0	-	1/150
PD	C4	JED EC JESD22-B100 and B108	3	10	Physical Dimensions	Cpk>1.67	-	1/10/0	1/10/0	3/30/0	3/300	3/300
Test Group D - Die Fabrication Reliability Tests												
Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name	Condition	Duration	Qual Device: SN74LVC1607QDCKRQ1	Qual Device: SN74LVC2G170DCKRQ1	QBS Process Reference: SN74AUP1T34QDCKRQ1	QBS Process Reference: SN74LVC1607QDCKRQ1	QBS Process Reference: SN74LVC2G140DCKRQ1
EM	D1	JESD61	-	-	Electromigration	-	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirement	Completed Per Process Technology Requirement	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
TDD	D2	JESD35	-	-	Time Dependent Dielectric Breakdown	-	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirement	Completed Per Process Technology Requirement	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
HCI	D3	JESD60 & 28	-	-	Hot Carrier Injection	-	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirement	Completed Per Process Technology Requirement	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
BTI	D4	-	-	-	Bias Temperature Instability	-	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirement	Completed Per Process Technology Requirement	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
SM	D5	-	-	-	Stress Migration	-	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirement	Completed Per Process Technology Requirement	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
Test Group E - Electrical Verification Tests												
ESD	E2	AEC Q100-002	1	3	ESD HBM	-	2500 Volts	-	-	-	-	1/30
ESD	E3	AEC Q100-011	1	3	ESD CDM	-	1000 Volts	-	-	1/3/0	1/30	1/30
LU	E4	AEC Q100-004	1	3	Latch-Up	Per AEC Q100-004	-	-	-	-	-	1/50
ED	E5	AEC Q100-009	3	30	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	-	1/30/0	3/60/0	1/300	3/900
Additional Tests												
<ul style="list-style-type: none"> 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 												

Ambient Operating Temperature by Automotive Grade Level:

- Grade 0 (or E): -40C to +150C
- Grade 1 (or Q): -40C to +125C
- Grade 2 (or T): -40C to +105C
- Grade 3 (or I): -40C to +85C

E1 (TEST): Electrical test temperatures of Qual samples (High temperature according to Grade level):

- Room/Hot/Cold : HTOL, ED
- Room/Hot : THB / HAST, TC / PTC, HTSL, ELFR, ESD & LU
- Room : AC/HAST

Quality and Environmental data is available at TI's external Web site: <http://www.ti.com/>

TI Qualification ID: R-CHG-2410-028

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

In performing change qualifications, Texas Instruments follows integrated circuit industry standards in performing defect mechanism analysis and failure mechanism-based accelerated environmental testing to ensure wafer fab process, assembly process and product quality and reliability. As encouraged by these standards, TI uses both product-specific and generic (family) data in qualifying its changes. For devices to be categorized as a 'product qualification family' for generic data purposes, they must share similar product, wafer fab process and assembly process elements. The applicability of generic data (also known at TI as Qualification by Similarity (QBS)) is determined by the Reliability Engineering function following these industry standards. Generic data is shown in the qualification report in columns titled "QBS Process" (for wafer fab process), "QBS Package" (for assembly process) and "QBS Product" (for product family).

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

IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES "AS IS" AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI's products are provided subject to TI's Terms of Sale (www.ti.com/legal/termsofsale.html) or other applicable terms available either on ti.com or provided in conjunction with such TI products. TI's provision of these resources does not expand or otherwise alter TI's applicable warranties or warranty disclaimers for TI products.