



**12500 TI Boulevard, MS 8640, Dallas, Texas 75243**

**PCN# 20251104000.1**

**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**

**Date:** November 05, 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

**20251104000.1**  
**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> |
|-----------------|-----------------------------|
| SN74LVC1G06DCKR | SN74LVC1G06DCKR             |
| SN74LVC1G17DCKR | SN74LVC1G17DCKR             |
| SN74LVC1G14DCKR | SN74LVC1G14DCKR             |
| SN74LVC1G34DCKR | NULL                        |
| SN74LVC1G07DCKR | SN74LVC1G07DCKR             |
| SN74LVC1G04DCKR | SN74LVC1G04DCKR             |

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

| <b>PCN Number:</b>  | 20251104000.1   | <b>PCN Date:</b>                       | November 05, 2025   |                     |                        |                        |  |  |                  |         |                |                     |         |                |      |                    |        |      |         |        |  |
|---|---|--|---------------------|---------------------|------------------------|------------------------|--|--|------------------|---------|----------------|---------------------|---------|----------------|------|--------------------|--------|------|---------|--------|--|
| <b>Title:</b>   | Qualification of RFAB using qualified Process Technology, Die Revision, Datasheet, and additional Assembly Site (CDAT & TIEMA) & 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>   | February 03, 2026   | <b>Sample requests accepted until:</b> | January 04, 2026*   |                     |                        |                        |  |  |                  |         |                |                     |         |                |      |                    |        |      |         |        |  |
| <b>*Sample requests received after January 04, 2026 will not be supported.</b>  |   |  |                     |                     |                        |                        |  |  |                  |         |                |                     |         |                |      |                    |        |      |         |        |  |
| <b>Change Type:</b>   |   |  |                     |                     |                        |                        |  |  |                  |         |                |                     |         |                |      |                    |        |      |         |        |  |
| <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   |                     |                        |                        |  |  |                  |         |                |                     |         |                |      |                    |        |      |         |        |  |
| <b>PCN Details</b>  |   |  |                     |                     |                        |                        |  |  |                  |         |                |                     |         |                |      |                    |        |      |         |        |  |
| <b>Description of Change:</b>   |   |  |                     |                     |                        |                        |  |  |                  |         |                |                     |         |                |      |                    |        |      |         |        |  |
| 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 &amp; 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                 |                        |  |  |                  |         |                |                     |         |                |      |                    |        |      |         |        |  |
|   | <b>Current</b>  | <b>New</b>                             |                     |                     |                        |                        |  |  |                  |         |                |                     |         |                |      |                    |        |      |         |        |  |
| Probe Site  | FFAB  | None                                   |                     |                     |                        |                        |  |  |                  |         |                |                     |         |                |      |                    |        |      |         |        |  |
| The die was also changed as a result of the process change.   |   |  |                     |                     |                        |                        |  |  |                  |         |                |                     |         |                |      |                    |        |      |         |        |  |
| Die Rev [2P]  | <b>Die Rev [2P]</b>   |  |                     |                     |                        |                        |  |  |                  |         |                |                     |         |                |      |                    |        |      |         |        |  |
| D,G   | <b>A</b>  |  |                     |                     |                        |                        |  |  |                  |         |                |                     |         |                |      |                    |        |      |         |        |  |
| Construction differences are as follows:  |   |  |                     |                     |                        |                        |  |  |                  |         |                |                     |         |                |      |                    |        |      |         |        |  |
|   | <b>Current Site</b>   | <b>Current Site</b>                    | <b>Current Site</b> | <b>Current Site</b> | <b>Additional Site</b> | <b>Additional Site</b> |  |  |                  |         |                |                     |         |                |      |                    |        |      |         |        |  |
| Assembly Site   | ASEWH   | HFTF                                   | HNA                 | TFME                | CDAT                   | TIEMA                  |  |  |                  |         |                |                     |         |                |      |                    |        |      |         |        |  |
| Wire diam/type  | Au 1.0 mil<br>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#402 0039A1  | SID#R-27                               | SID#450 179         | SID#R-07            | 4222198                | 4222198                |  |  |                  |         |                |                     |         |                |      |                    |        |      |         |        |  |
| Mount Compound  | SID#112 0999A2  | SID# A-03                              | SID#400 180         | 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.

|   |                      |   |   |  |             |
|---|----------------------|---|---|--|-------------|
|    | TEXAS<br>INSTRUMENTS | SN74LVC1G04<br>SCES214AF – APRIL 1999 – REVISED OCTOBER 2025    | <b>Changes from Revision AE (June 2025) to Revision AF (October 2025)</b>   |  | <b>Page</b> |
|   |                      |   | <ul style="list-style-type: none"> <li>Changed Junction-to-ambient thermal resistance value for DCK package from: 229°C/W to: 371.0°C/W ..... 5</li> <li>Changed Junction-to-case (top) thermal resistance value for DCK package from: 93°C/W to: 297.5°C/W ..... 5</li> <li>Changed Junction-to-board thermal resistance value for DCK package from: 65°C/W to: 258.6°C/W ..... 5</li> <li>Changed Junction-to-top characterization value for DCK package from: 2°C/W to: 195.6°C/W ..... 5</li> <li>Changed Junction-to-board characterization value for DCK package from: 64°C/W to: 256.2°C/W ..... 5</li> </ul>      |  |             |
|    | TEXAS<br>INSTRUMENTS | SN74LVC1G06<br>SCES295AB – JUNE 2000 – REVISED OCTOBER 2025     | <b>Changes from Revision AA (June 2025) to Revision AB (October 2025)</b>   |  | <b>Page</b> |
|   |                      |   | <ul style="list-style-type: none"> <li>Changed Junction-to-ambient thermal resistance value for DCK package from: 276.1°C/W to: 371.10°C/W ... 5</li> <li>Changed Junction-to-case (top) thermal resistance value for DCK package from: 178.9°C/W to: 297.5°C/W . 5</li> <li>Changed Junction-to-board thermal resistance value for DCK package from: 70.9°C/W to: 258.2°C/W ..... 5</li> <li>Changed Junction-to-top characterization value for DCK package from: 47°C/W to: 195.6°C/W ..... 5</li> <li>Changed Junction-to-board characterization value for DCK package from: 69.3°C/W to: 256.2°C/W ..... 5</li> </ul> |  |             |
|    | TEXAS<br>INSTRUMENTS | SN74LVC1G07<br>SCES296AG – FEBRUARY 2000 – REVISED OCTOBER 2025 | <b>Changes from Revision AF (June 2025) to Revision AG (October 2025)</b>   |  | <b>Page</b> |
|   |                      |   | <ul style="list-style-type: none"> <li>Changed Junction-to-ambient thermal resistance value for DCK package from: 278°C/W to: 371.0°C/W ..... 5</li> <li>Changed Junction-to-case (top) thermal resistance value for DCK package from: 93°C/W to: 297.5°C/W ..... 5</li> <li>Changed Junction-to-board thermal resistance value for DCK package from: 65°C/W to: 258.6°C/W ..... 5</li> <li>Changed Junction-to-top characterization value for DCK package from: 2°C/W to: 195.6°C/W..... 5</li> <li>Changed Junction-to-board characterization value for DCK package from: 64°C/W to: 256.2°C/W..... 5</li> </ul>        |  |             |
|  | TEXAS<br>INSTRUMENTS | SN74LVC1G14<br>SCES218AA – APRIL 1999 – REVISED OCTOBER 2025    | <b>Changes from Revision Z (June 2025) to Revision AA (October 2025)</b>  |  | <b>Page</b> |
|   |                      |   | <ul style="list-style-type: none"> <li>Changed Junction-to-ambient thermal resistance value for DCK package from: 276.1°C/W to: 371.0°C/W .... 6</li> <li>Changed Junction-to-case (top) thermal resistance value for DCK package from: 178.9°C/W to: 297.5°C/W.. 6</li> <li>Changed Junction-to-board thermal resistance value for DCK package from: 70.9°C/W to: 258.6°C/W..... 6</li> <li>Changed Junction-to-top characterization value for DCK package from: 47.0°C/W to: 195.6°C/W..... 6</li> <li>Changed Junction-to-board characterization value for DCK package from: 69.3°C/W to: 256.2°C/W..... 6</li> </ul>  |  |             |
|  | TEXAS<br>INSTRUMENTS | SN74LVC1G17<br>SCES351Y – JULY 2001 – REVISED OCTOBER 2025      | <b>Changes from Revision X (June 2025) to Revision Y (October 2025)</b>   |  | <b>Page</b> |
|   |                      |   | <ul style="list-style-type: none"> <li>Changed Junction-to-ambient thermal resistance value for DBV package from: 229°C/W to: 357.1°C/W ..... 5</li> <li>Changed Junction-to-case (top) thermal resistance value for DBV package from: 164°C/W to: 263.7°C/W..... 5</li> <li>Changed Junction-to-board thermal resistance value for DBV package from: 62°C/W to: 264.4°C/W..... 5</li> <li>Changed Junction-to-top characterization value for DBV package from: 44°C/W to: 195.6°C/W..... 5</li> <li>Changed Junction-to-board characterization value for DBV package from: 62°C/W to: 262.2°C/W..... 5</li> </ul>        |  |             |
|  | TEXAS<br>INSTRUMENTS | SN74LVC1G34<br>SCES519O – DECEMBER 2003 – REVISED OCTOBER 2025  | <b>Changes from Revision N (June 2025) to Revision O (October 2025)</b>   |  | <b>Page</b> |
|   |                      |   | <ul style="list-style-type: none"> <li>Changed Junction-to-ambient thermal resistance value for DCK package from: 278°C/W to: 371.0°C/W ..... 5</li> <li>Changed Junction-to-case (top) thermal resistance value for DCK package from: 93°C/W to: 297.5°C/W..... 5</li> <li>Changed Junction-to-board thermal resistance value for DCK package from: 65°C/W to: 258.6°C/W..... 5</li> <li>Changed Junction-to-top characterization value for DCK package from: 2°C/W to: 195.6°C/W..... 5</li> <li>Changed Junction-to-board characterization value for DCK package from: 64°C/W to: 256.2°C/W..... 5</li> </ul>          |  |             |

|                       |                                 |                             |   |
|-----------------------|---------------------------------|-----------------------------|---|
| <b>Product Folder</b> | <b>Current Datasheet Number</b> | <b>New Datasheet Number</b> | <b><a href="#">Link to full datasheet</a></b> |
|-----------------------|---------------------------------|-----------------------------|---|

|             |           |                  |   |
|-------------|-----------|------------------|---|
| SN74LVC1G04 | SCES214AE | <b>SCES214AF</b> | <a href="http://www.ti.com/product/SN74LVC1G04">http://www.ti.com/product/SN74LVC1G04</a> |
| SN74LVC1G06 | SCES295AA | <b>SCES295AB</b> | <a href="http://www.ti.com/product/SN74LVC1G06">http://www.ti.com/product/SN74LVC1G06</a> |
| SN74LVC1G07 | SCES296AF | <b>SCES296AG</b> | <a href="http://www.ti.com/product/SN74LVC1G07">http://www.ti.com/product/SN74LVC1G07</a> |
| SN74LVC1G14 | SCES218Z  | <b>SCES218AA</b> | <a href="http://www.ti.com/product/SN74LVC1G14">http://www.ti.com/product/SN74LVC1G14</a> |
| SN74LVC1G17 | SCES351X  | <b>SCES351Y</b>  | <a href="http://www.ti.com/product/SN74LVC1G17">http://www.ti.com/product/SN74LVC1G17</a> |
| SN74LVC1G34 | SCES519N  | <b>SCES519O</b>  | <a href="http://www.ti.com/product/SN74LVC1G34">http://www.ti.com/product/SN74LVC1G34</a> |

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          |
| <b>RFAB</b> | <b>RFB</b>                  | <b>USA</b>                   | <b>Richardson</b> |

#### 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  |
| <b>CDAT</b>   | <b>CDA</b>                 | <b>CHN</b>                  | <b>Chengdu</b>            |
| <b>TIEMA</b>  | <b>CU6</b>                 | <b>MYS</b>                  | <b>Melaka</b>             |

Sample product shipping label (not actual product label):





MADE IN: Malaysia  
2DC: 29:

|                       |          |
|-----------------------|----------|
| 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:<br>SN74LVC1G04DCKR | Qual Device:<br>SN74LVC1G07DCKR | QBS Reference:<br>SN74HCS74QPWRQ1 | QBS Reference:<br>TXS0101QDCKRQ1 | QBS Reference:<br>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:<br><a href="#">SN74LVC1G04DCKRQ1</a> | Qual Device:<br><a href="#">SN74LVC1G07DCKRQ1</a> | QBS Reference:<br><a href="#">SN74HCS74QPWRQ1</a> | QBS Reference:<br><a href="#">TXS0101QDCKRQ1</a> | QBS Reference:<br><a href="#">SN74LVC1G16DCKRQ1</a> |
|------|----|-----------------------------|---|------------|---|---|---|--|---|
| 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:<br><a href="#">SN74LVC1G07QDCKRQ1</a> | Qual Device:<br><a href="#">SN74LVC2G17QDCKRQ1</a> | QBS Process Reference:<br><a href="#">SN74AUP1T34QDCKRQ1</a> | QBS Process Reference:<br><a href="#">SN74LVC1G07QDCKRQ1</a> | QBS Process Reference:<br><a href="#">SN74LVC2G14IDCKRQ1</a> |
|--------------------------|--|--|--|--|--|
| 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:<br><a href="#">SN74LVC1G07QDCKRQ1</a> | Qual Device:<br><a href="#">SN74LVC2G17QDCKRQ1</a> | QBS Reference:<br><a href="#">SN74AUP1T34QDCKRQ1</a> | QBS Reference:<br><a href="#">SN74LVC1G07QDCKRQ1</a> | QBS Reference:<br><a href="#">SN74LVC2G14IDCKRQ1</a> |
|---|------|-----------------------------|------------|----------|-----------------|-------------|----------|--|--|--|--|--|
| 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:<br><a href="#">SN74LVC1607QDCCKRQ1</a> | Qual Device:<br><a href="#">SN74LVC2617QDCCKRQ1</a> | QBS Reference:<br><a href="#">SN74AUP1T34QDCCKRQ1</a> | QBS Reference:<br><a href="#">SN74LVC1607QDCCKRQ1</a> | QBS Reference:<br><a href="#">SN74LVC2614QDCCKRQ1</a> |
|---|------|----------------------------------|-------------|----------|-------------------------------|---|-------------|---|---|---|---|---|
| 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 SN74LVC1607QDCCKRQ1 is qualified at MSL1260C  
 • Qual Device SN74LVC2617QDCCKRQ1 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:<br><a href="#">SN74LVC1607QDCCKRQ1</a> | Qual Device:<br><a href="#">SN74LVC2617QDCCKRQ1</a> | QBS Process Reference:<br><a href="#">SN74AUP1T34QDCCKRQ1</a> | QBS Process Reference:<br><a href="#">SN74LVC1607QDCCKRQ1</a> | QBS Process Reference:<br><a href="#">SN74LVC2614QDCCKRQ1</a> |
|--------------------------|---|---|---|---|---|
| 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 SN74LVC1607QDCCKRQ1 is qualified at MSL1 260C
- Qual Device SN74LVC2617QDCCKRQ1 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:<br><a href="#">SN74LVC1607QDCCKRQ1</a> | Qual Device:<br><a href="#">SN74LVC2617QDCCKRQ1</a> | QBS Process Reference:<br><a href="#">SN74AUP1T34QDCCKRQ1</a> | QBS Process Reference:<br><a href="#">SN74LVC1607QDCCKRQ1</a> | QBS Process Reference:<br><a href="#">SN74LVC2614QDCCKRQ1</a> |
|---|----|-----------------------------|-------------|----------|-----------------|-----------|----------|---|---|---|---|---|
| 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: <a href="#">SN74LVC1607QDCKRQ1</a> | Qual Device: <a href="#">SN74LVC2G170DCKRQ1</a> | QBS Process Reference: <a href="#">SN74AUP1T34QDCKRQ1</a> | QBS Process Reference: <a href="#">SN74LVC1607QDCKRQ1</a> | QBS Process Reference: <a href="#">SN74LVC2G140DCKRQ1</a> |
|---|----|---------------------------------------|-------------|----------|-------------------------------------|---|------------|---|---|---|---|---|
| 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: <a href="#">SN74LVC1607QDCKRQ1</a> | Qual Device: <a href="#">SN74LVC2G170DCKRQ1</a> | QBS Process Reference: <a href="#">SN74AUP1T34QDCKRQ1</a> | QBS Process Reference: <a href="#">SN74LVC1607QDCKRQ1</a> | QBS Process Reference: <a href="#">SN74LVC2G140DCKRQ1</a> |
| 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"> <li>Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable</li> <li>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</li> <li>The following are equivalent HTSL options based on an activation energy of 0.7eV: 150C/1k Hours, and 170C/420 Hours</li> <li>The following are equivalent Temp Cycle options per JESD47: -55C/125C/700 Cycles and -65C/150C/500 Cycles</li> </ul> |    |                                       |             |          |                                     |   |            |   |   |   |   |   |

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 : ACuHAST

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

TI Qualification ID: R-CHG-2410-028

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