



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

**PCN# 20250707001.2**  
**Qualification of TIEM as an additional Assembly & Test site**  
**for select devices**  
**Change Notification / Sample Request**

**Date:** July 07, 2025  
**To:** MOUSER PCN

Dear Customer:

This is an announcement of a change to a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

Texas Instruments requires acknowledgement of receipt of this notification within 60 days of the date of this notice. Lack of acknowledgement of this notice within 60 days constitutes acceptance and approval of this change. If samples or additional data are required, requests must be received within 60 days of this notification.

The changes discussed within this PCN will not take effect any earlier than the proposed first ship date on Page 3 of this notification, unless customer agreement has been reached on an earlier implementation of the change.

This notice does not change the end-of-life status of any product. Should product affected be on a previously issued product withdrawal/discontinuance notice, this notification does not extend the life of that product or change the life time buy offering/discontinuance plan.

For questions regarding this notice or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the change management team.

For sample requests or sample related questions, contact your local Field Sales Representative.

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

Sincerely,

Change Management Team  
SC Business Services

**20250707001.2**  
**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> |
|-----------------|-----------------------------|
| DRV3245AQPHPRQ1 | DRV3245AQPHPRQ1             |
| DRV3245AEPHPRQ1 | DRV3245AEPHPRQ1             |

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

|   |  |   |   |                          |                     |
|---|--|---|---|--------------------------|---------------------|
| <b>PCN Number:</b>  | 20250707001.2  |   |   | <b>PCN Date:</b>         | July 07, 2025       |
| <b>Title:</b>   | Qualification of TIEM as an additional Assembly & Test site for select devices |   |   |                          |                     |
| <b>Customer Contact:</b>  | Change Management team   |   | <b>Dept:</b>                                  | Quality Services         |                     |
| <b>Proposed 1<sup>st</sup> Ship Date:</b>   | January 03, 2026   |   | <b>Sample requests accepted until:</b>        | September 05, 2025*      |                     |
| *Sample requests received after September 05, 2025 will not be supported.   |  |   |   |                          |                     |
| <b>Change Type:</b>   |  |   |   |                          |                     |
| <input checked="" type="checkbox"/>   | Assembly Site  | <input type="checkbox"/>                      | Design  | <input type="checkbox"/> | Wafer Bump Material |
| <input 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 type="checkbox"/> | Wafer Fab Site      |
| <input type="checkbox"/>  | Mechanical Specification   | <input checked="" type="checkbox"/>           | Test Site                                     | <input type="checkbox"/> | Wafer Fab Material  |
| <input checked="" type="checkbox"/>   | Packing/Shipping/Labeling  | <input type="checkbox"/>                      | Test Process                                  | <input type="checkbox"/> | Wafer Fab Process   |
| <b>PCN Details</b>  |  |   |   |                          |                     |
| <b>Description of Change:</b>   |  |   |   |                          |                     |
| Texas Instruments is pleased to announce the qualification of TIEM as an additional Assembly & Test site for select devices. Assembly differences are as follows:                             |  |   |   |                          |                     |
|   | <b>Current A/T site</b>  |   | <b>Additional A/T site</b>                    |                          |                     |
|   | <b>TITL</b>  | <b>PHI</b>                                    | <b>TIEM</b>                                   |                          |                     |
| Mount Compound  | 4208458  | 4208458                                       | 4211470                                       |                          |                     |
| Test coverage, insertions, conditions will remain consistent with current testing.  |  |   |   |                          |                     |
| <b>Reason for Change:</b>   |  |   |   |                          |                     |
| Continuity of Supply  |  |   |   |                          |                     |
| <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>Assembly Site Information:</b>   |  |   |   |                          |                     |
| Assembly Site   | Assembly Site Origin (22L)   | Assembly Country Code (23L)                   | Assembly City                                 |                          |                     |
| TI Taiwan   | TAI  | TWN   | Chung Ho, New Taipei City                     |                          |                     |
| TI Philippines  | PHI  | PHL   | Baguio City                                   |                          |                     |
| <b>TI Melaka</b>  | <b>CU6</b>   | <b>MYS</b>                                    | <b>Melaka</b>                                 |                          |                     |
| <b>Sample Product Shipping Label (not actual product label)</b>   |  |   |   |                          |                     |

|   |  |  |  |
|---|--|--|--|
|    |  | (1P) SN74LS07NSR<br>(Q) 2000 (D) 0336<br>(31T) LOT: 3959047MLA<br>(4W) TKY (1T) 7523483SI2<br>(P)<br>(2P) REV: (V) 0033317<br>(20L) CSO: SHE (21L) CCO: USA<br>(22L) ASO: MLA (23L) ACO: MYS |  |
| MADE IN: Malaysia<br>2DC: 2Q:<br>MSL 2 / 260C / 1 YEAR SEAL DT<br>MSL 1 / 235C / UNLIM 03/29/04<br>OPT:<br>ITEM: 39<br>LBL: 5A (L)T0:1750   |  |  |  |
| <b>Product Affected:</b>  |  |  |  |
| DRV3245AEPHPRQ1   |  | DRV3245AQPHPRQ1  |  |
| DRV3245AEPHPRQ1.A   |  | DRV3245AQPHPRQ1.A  |  |

## Qualification Report

### Automotive Qualification Summary

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

Approve Date 07-April-2025

#### Product Attributes

| Attributes               | Qual Device:    | QBS Process Reference: |
|--------------------------|-----------------|------------------------|
|                          | DRV3245AEPHPRQ1 | DRV8305NEPHQ1          |
| Automotive Grade Level   | Grade 0         | Grade 0                |
| Operating Temp Range (C) | -40 to 150      | -40 to 150             |
| Product Function         | Signal Chain    | Signal Chain           |
| Wafer Fab Supplier       | RFAB            | RFAB                   |
| Assembly Site            | TIEMA           | TAI                    |
| Package Group            | QFP             | QFP                    |
| Package Designator       | PHP             | PHP                    |
| Pin Count                | 48              | 48                     |

QBS: Qual By Similarity, also known as Generic Data

Qual Device DRV3245AEPHPRQ1 is qualified at MSL3 260C

Note 1: Qual device and affected devices in PCN have justification to use Process QBS references for HTOL and ELFR based on AEC-100J A1.2 silicon wafer fab and process attributes were qualified. Group B tests purpose is for silicon defects, they do not get influenced by assembly site or BOM differences.

Note 2: One lot is allowed per AEC-Q100J A1.5.1 Multiple Sites - When the specific product or process attribute to be qualified or requalified will affect more than one wafer fab site or assembly site, a minimum of one lot of testing per affected site is required

## 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>DRV3245AEPHPRQ1               | QBS Process Reference:<br>DRV8305NEHPQ1       |
|--|----|-------------------------------------|-------------|----------|-------------------------------------|---|-------------|---|---|
| Test Group A - Accelerated Environment Stress Tests  |    |                                     |             |          |                                     |   |             |   |   |
| PC   | A1 | JEDEC J-STD-020 JESD22-A113         | 3           | 77       | Preconditioning                     | MSL3 260C                               | -           | 3/Pass  | -   |
| HAST   | A2 | JEDEC JESD22-A110                   | 3           | 77       | Biased HAST                         | 130C/85%RH                              | 96 Hours    | 3/231/0                                       | -   |
| AC/UHAST   | A3 | JEDEC JESD22-A102/JEDEC JESD22-A118 | 3           | 77       | Unbiased HAST                       | 130C/85%RH                              | 96 Hours    | 3/231/0                                       | -   |
| TC   | A4 | JEDEC JESD22-A104 and Appendix 3    | 3           | 77       | Temperature Cycle                   | -55C/150C                               | 1500 Cycles | 3/231/0                                       | -   |
| TC-BP  | A4 | MIL-STD883 Method 2011              | 1           | 30       | Post Temp. Cycle, Bond Pull         | Wires                                   | -           | 1/30/0  | -   |
| HTSL   | A6 | JEDEC JESD22-A103                   | 1           | 45       | High Temperature Storage Life       | 175C                                    | 1000 Hours  | 3/135/0                                       | -   |
| Test Group B - Accelerated Lifetime Simulation Tests |    |                                     |             |          |                                     |   |             |   |   |
| HTOL   | B1 | JEDEC JESD22-A108                   | 3           | 77       | Life Test                           | 150C                                    | 1000 Hours  | Note 1  | 3/231/0                                       |
| ELFR   | B2 | AEC Q100-008                        | 3           | 800      | Early Life Failure Rate             | 150C                                    | 48 Hours    | Note 1  | 3/2400/0                                      |
| 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       | 3/90/0  | -   |
| WBP  | C2 | MIL-STD883 Method 2011              | 1           | 30       | Wire Bond Pull                      | Minimum of 5 devices, 30 wires Cpk>1.67 | Wires       | 3/90/0  | -   |
| SD   | C3 | JEDEC J-STD-002                     | 1           | 15       | PB-Free Solderability               | >95% Lead Coverage                      | -           | 3/15/0  | -   |
| PD   | C4 | JEDEC JESD22-B100 and B108          | 3           | 10       | Physical Dimensions                 | Cpk>1.67                                | -           | 3/30/0  | -   |
| Test Group D - Die Fabrication Reliability Tests     |    |                                     |             |          |                                     |   |             |   |   |
| EM   | D1 | JESD61                              | -           | -        | Electromigration                    | -                                       | -           | Completed Per Process Technology Requirements | Completed Per Process Technology Requirements |
| Tddb   | D2 | JESD35                              | -           | -        | Time Dependent Dielectric Breakdown | -                                       | -           | 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 Requirements |
| BTI  | D4 | -                                   | -           | -        | Bias Temperature Instability        | -                                       | -           | Completed Per Process Technology Requirements | Completed Per Process Technology Requirements |
| SM   | D5 | -                                   | -           | -        | Stress Migration                    | -                                       | -           | Completed Per Process Technology Requirements | Completed Per Process Technology Requirements |
| Test Group E - Electrical Verification Tests         |    |                                     |             |          |                                     |   |             |   |   |
| ED   | E5 | AEC Q100-009                        | 1           | 30       | Electrical Distributions            | Cpk>1.67 Room, hot, and cold            | -           | 1/30/0 Note 2                                 | 3/90/0  |

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/uHAST

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

TI Qualification ID: R-CHG-2405-087

## Qualification Report

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

**Q006 QFP at TIEMA**  
Approve Date 02-July-2025

#### Product Attributes

| Attributes               | Qual Device:    |  |
|--------------------------|-----------------|--|
|                          | DRV3245AEPHPRQ1 |  |
| Automotive Grade Level   | Grade 0         |  |
| Operating Temp Range (C) | -40 to 150      |  |
| Product Function         | Signal Chain    |  |
| Wafer Fab Supplier       | RFAB            |  |
| Assembly Site            | TIEMA           |  |
| Package Group            | QFP             |  |
| Package Designator       | PHP             |  |
| Pin Count                | 48              |  |

Qual Device DRV3245AEPHPRQ1 is qualified at MSL3 260C

This report represents AEC-Q006 7.1 Family Data Usage using technology driver and lead products that are most representative of the technology family

#### 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>DRV3245AEPHPRQ1 |
|---|--------|-----------------------------|-------------|----------|---------------------------------------|---------------------------|-----------|---------------------------------|
| Test Group A - Accelerated Environment Stress Tests |        |                             |             |          |                                       |                           |           |                                 |
| PC  | A1     | JEDEC J-STD-020 JESD22-A113 | 3           | 77       | Preconditioning                       | MSL3 260C                 | -         | 3/Pass                          |
| PC  | A1.1   | -                           | 3           | 22       | SAM Precon Pre                        | Review for delamination   | -         | 3/66/0                          |
| PC  | A1.2   | -                           | 3           | 22       | SAM Precon Post                       | Review for delamination   | -         | 3/66/0                          |
| HAST  | A2.1   | JEDEC JESD22-A110           | 3           | 77       | Biased HAST                           | 130C/85%RH                | 96 Hours  | 3/231/0                         |
| HAST  | A2.1.2 | -                           | 3           | 1        | Cross Section, post bHAST, 1X         | Post stress cross section | Completed | 3/3/0                           |
| HAST  | A2.1.3 | -                           | 3           | 3        | Wire Bond Shear, post bHAST, 1X       | Post stress               | -         | 3/9/0                           |
| HAST  | A2.1.4 | -                           | 3           | 3        | Bond Pull over Stitch, post bHAST, 1X | Post stress               | -         | 3/9/0                           |
| HAST  | A2.1.5 | -                           | 3           | 3        | Bond Pull over Ball, post bHAST, 1X   | Post stress               | -         | 3/9/0                           |
| HAST  | A2.2   | JEDEC JESD22-A110           | 3           | 70       | Biased HAST                           | 130C/85%RH                | 192 Hours | 3/210/0                         |

|  |        |                                  |   |    |                                       |   |             |         |
|--|--------|----------------------------------|---|----|---------------------------------------|---|-------------|---------|
| HAST   | A2.2.1 | -                                | 3 | 22 | SAM Analysis, post bHAST 2X           | Review for delamination                 | Completed   | 3/66/0  |
| HAST   | A2.2.2 | -                                | 3 | 1  | Cross Section, post bHAST, 2X         | Post stress cross section               | Completed   | 3/3/0   |
| HAST   | A2.2.3 | -                                | 3 | 3  | Wire Bond Shear, post bHAST, 2X       | Post stress                             | -           | 3/9/0   |
| HAST   | A2.2.4 | -                                | 3 | 3  | Bond Pull over Stitch, post bHAST, 2X | Post stress                             | -           | 3/9/0   |
| HAST   | A2.2.5 | -                                | 3 | 3  | Bond Pull over Ball, post bHAST, 2X   | Post stress                             | -           | 3/9/0   |
| TC   | A4.1   | JEDEC JESD22-A104 and Appendix 3 | 3 | 77 | Temperature Cycle                     | -55C/150C                               | 1500 Cycles | 3/231/0 |
| TC   | A4.2   | JEDEC JESD22-A104 and Appendix 3 | 3 | 70 | Temperature Cycle                     | -55C/150C                               | 3000 Cycles | 3/210/0 |
| TC   | A4.2.1 | -                                | 3 | 22 | SAM Analysis, post TC, 2X             | Review for delamination                 | Completed   | 3/66/0  |
| TC   | A4.2.2 | -                                | 3 | 1  | Cross Section, post TC, 2X            | Post stress cross section               | Completed   | 3/3/0   |
| TC   | A4.2.3 | -                                | 3 | 3  | Wire Bond Shear, post TC, 2X          | Post stress                             | -           | 3/9/0   |
| TC   | A4.2.4 | -                                | 3 | 3  | Bond Pull over Stitch, post TC, 2X    | Post stress                             | -           | 3/9/0   |
| TC   | A4.2.5 | -                                | 3 | 3  | Bond Pull over Ball, post TC, 2X      | Post stress                             | -           | 3/9/0   |
| HTSL   | A6.1   | JEDEC JESD22-A103                | 3 | 45 | High Temperature Storage Life         | 175C                                    | 1000 Hours  | 3/135/0 |
| HTSL   | A6.2   | JEDEC JESD22-A103                | 3 | 44 | High Temperature Storage Life         | 175C                                    | 2000 Hours  | 3/132/0 |
| HTSL   | A6.2.1 | -                                | 3 | 1  | Cross Section, post HTSL, 2X          | Post stress cross section               | Completed   | 3/3/0   |
| <b>Test Group C - Package Assembly Integrity Tests</b> |        |                                  |   |    |                                       |   |             |         |
| WBS  | C1     | AEC Q100-001                     | 1 | 30 | Wire Bond Shear                       | Minimum of 5 devices, 30 wires Cpk>1.67 | Wires       | 3/90/0  |
| WBP  | C2     | MIL-STD883 Method 2011           | 1 | 30 | Wire Bond Pull                        | Minimum of 5 devices, 30 wires Cpk>1.67 | Wires       | 3/90/0  |

Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable

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The following are equivalent Temp Cycle options per JESD47 : -55C/125C/700 Cycles and -65C/150C/500 Cycles

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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/uHAST

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

TI Qualification ID: R-CHG-2405-087

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).



ZVEI ID: SEM-PA-18, SEM-PA-07, SEM-TF-01

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

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