



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

Revision A is to remove SEM-PA-03 from the ZVEI ID which was inadvertently included and is not applicable. We apologize for any inconvenience this may have caused.

|                                                                                                                                                                                   |                       |                                            |                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------------------------------|------------------|
| <b>PCN Number:</b>                                                                                                                                                                | <b>20260713003.2A</b> | <b>PCN Issued</b>                          | August 13, 2026  |
| Qualifying a Design change, Data sheet update, Clark-PR as an additional wafer Probe Test site, BOM update and TIEM as an additional Assembly/Test site option for select devices |                       | <b>Sample request deadline:</b>            | N/A              |
|                                                                                                                                                                                   |                       | <b>Estimated 1<sup>st</sup> ship date:</b> | January 10, 2027 |

| <b>Change type(s)</b>                                                                                                         | <b>ZVEI ID(s)</b>                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Assembly Site<br>Assembly Material<br>Packing/Shipping/Labeling<br>Design<br>Data Sheet/Electrical Specification<br>Test Site | SEM-PA-18, SEM-DS-01, SEM-DE-02, SEM-PS-02, <b>SEM-PA-03</b> , SEM-PA-05, SEM-PA-07, SEM-PA-11, SEM-TF-01 |

### **PCN Details**

Description of Change:

Texas Instruments is pleased to announce a die design, Clark-PR as an additional wafer Probe Test site, BOM update and TIEM as additional Assembly/Test site options for the select devices listed below.

|                       |              |                 |
|-----------------------|--------------|-----------------|
|                       | Current Site | Additional Site |
| Wafer probe Test site | CD-PR        | CLARK-PR        |

Construction differences as follows:

Group 1 device

|                    |              |            |                 |
|--------------------|--------------|------------|-----------------|
|                    | Current site | BOM update | Additional Site |
| Assembly/Test site | MLA          | MLA        | TIEM            |
| Mount compound     | 4208458      | 4211470    | 4211470         |
| Mold compound      | 4211649      | 4211649    | 4228573         |
| Lead finish        | NiPdAu       | NiPdAu     | Matte Sn        |
| MSL level          | 3            | 3          | 1               |

Group 2 device

|                    |              |                 |
|--------------------|--------------|-----------------|
|                    | Current site | Additional Site |
| Assembly/Test site | TAI          | TIEM            |
| Mold compound      | 4211649      | 4228573         |
| Lead finish        | NiPdAu       | Matte Sn        |
| MSL level          | 3            | 1               |

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.



**LM63615-Q1, LM63625-Q1**  
SNVSB55J – FEBRUARY 2019 – REVISED JUNE 2026

| <b>Changes from Revision I (May 2025) to Revision J (June 2026)</b>                                                                         | <b>Page</b> |
|---------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| • Added a statement and table note about input capacitor placement recommendation in the <i>Pin Configurations and Functions</i> table..... | 4           |
| • Updated I <sub>L-NEG</sub> specification for LM63625-Q1 in the <i>Electrical Characteristics</i> table.....                               | 8           |



**LM63635-Q1**  
SNVSBK9J – NOVEMBER 2019 – REVISED JUNE 2026

| <b>Changes from Revision I (October 2025) to Revision J (June 2026)</b>                                                                     | <b>Page</b> |
|---------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| • Added a statement and table note about input capacitor placement recommendation in the <i>Pin Configurations and Functions</i> table..... | 4           |
| • Updated the table note of <i>Absolute Maximum Ratings</i> table.....                                                                      | 6           |
| • Updated I <sub>L-NEG</sub> specification in the <i>Electrical Characteristics</i> table.....                                              | 8           |

| Product Folder | Current Datasheet Number | New Datasheet Number | Link to full datasheet                                                                  |
|----------------|--------------------------|----------------------|-----------------------------------------------------------------------------------------|
| LM636x5-Q1     | SNVSB55I                 | SNVSB55J             | <a href="http://www.ti.com/product/LM63615-Q1">http://www.ti.com/product/LM63615-Q1</a> |
| LM63635-Q1     | SNVSBK9I                 | SNVSBK9J             | <a href="http://www.ti.com/product/LM63635-Q1">http://www.ti.com/product/LM63635-Q1</a> |

Qual details are provided in the Qual Data Section.  
Test coverage, insertions, conditions will remain consistent with current testing.

|                           |                                                                                       |
|---------------------------|---------------------------------------------------------------------------------------|
| <b>Reason for Change:</b> | Improve robustness under corner-case application conditions.<br>Continuity of supply. |
|---------------------------|---------------------------------------------------------------------------------------|

|                                                                    |                                                                                                                                                                                               |                                               |                                               |                                               |
|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| Anticipated impact on Form, Fit, Function, Quality or Reliability: | Review the updated datasheets and/or Standard Data Packet for more details on the changes                                                                                                     |                                               |                                               |                                               |
| 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:         | Assembly Site Information                                                                                                                                                                     |                                               |                                               |                                               |
|                                                                    | Assembly Site                                                                                                                                                                                 | Assembly Site Origin                          | Assembly Country                              | Assembly City                                 |

|                                                                                    |             |            |            |
|------------------------------------------------------------------------------------|-------------|------------|------------|
|                                                                                    | (22L)       | Code (23L) |            |
|                                                                                    | MLA         | MLA        | MYS        |
|                                                                                    | TAI         | TAI        | TWN        |
|                                                                                    | <b>TIEM</b> | <b>CU6</b> | <b>MYS</b> |
| Kuala Lumpur                                                                       |             |            |            |
| Chung Ho, New Taipei City                                                          |             |            |            |
| <b>Melaka</b>                                                                      |             |            |            |
| Sample product shipping label (not actual product label):                          |             |            |            |
|  |             |            |            |

| Group 1 Products Affected: (Design, Probe site, Data sheet, Assembly/Test site) |                  |
|---------------------------------------------------------------------------------|------------------|
| LM63610DQPWPRQ1                                                                 | LM63625DQPWPRQ1* |
| LM63615DQPWPRQ1*                                                                | LM63635DQPWPRQ1* |
| *With Data Sheet change                                                         |                  |
| Group 2 Products Affected: (Assembly/Test site only)                            |                  |
| DRV8876QPWPRQ1                                                                  | DRV8876QPWPRQ1.A |

## Automotive Qualification Summary (As per AEC-Q100 and JEDEC Guidelines)

Approve Date 26-February-2026

Note: Minor silicon die revision for all assembly sites – TI Qualification R-NPD-2512-048 \*

\*Die revision was localized routing change to internal logic circuits to address bug fix. Change does not impact reliability or alter device specific data.

### Product Attributes

| Attributes             | Qual Device<br>LM636xxxQDQRRQ1<br>CLARK-AT / CDAT assembly | Qual Device<br>LM636xxxQDQWPRQ1<br>TIEMA assembly | Qual Device<br>LM636xxxQDQWPRQ1<br>MLA assembly | Original Q100 qualification:<br>LM636xxxQDQRRQ1<br>CDAT assembly | Original Qualification:<br>LM636xxxQDQWPRQ1<br>MLA assembly | QBS for ELFR<br>LMR33620CQRNXTQ1 |
|------------------------|------------------------------------------------------------|---------------------------------------------------|-------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------|----------------------------------|
| Automotive Grade Level |                                                            |                                                   |                                                 | Grade 1                                                          |                                                             | Grade 1                          |
| Operating Temp Range   |                                                            |                                                   |                                                 | -40 to +125 C                                                    |                                                             | -40 to +125 C                    |
| Product Function       |                                                            |                                                   |                                                 | Power Management                                                 |                                                             | Power Management                 |
| Die Attributes         |                                                            |                                                   |                                                 |                                                                  |                                                             |                                  |
| Wafer Fab Supplier     |                                                            |                                                   |                                                 | RFAB                                                             |                                                             | RFAB                             |
| Wafer Process ID       |                                                            |                                                   |                                                 | LBC9                                                             |                                                             | LBC9                             |
| Package Attributes     |                                                            |                                                   |                                                 |                                                                  |                                                             |                                  |
| Assembly Site          | CLARK                                                      | TIEMA                                             | MLA                                             | CDAT                                                             | MLA                                                         | UTL1                             |
| Package Type           | QFN/SON                                                    | HTSSOP                                            | HTSSOP                                          | QFN/SON                                                          | HTSSOP                                                      | QFN/SON                          |

| Package Designator            | DRR             | PWP             | PWP             | DRR             | PWP             | RNX |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----|
| Ball/Lead Count               | 12              | 16              | 16              | 12              | 16              | 12  |
| Package Size (mils)           | 118.11 X 118.11 | 196.85 X 173.23 | 196.85 X 173.23 | 118.11 X 118.11 | 196.85 X 173.23 |     |
| Body Thickness (mils)         | 31.5            | 47.24           | 47.24           | 31.5            | 47.24           |     |
| Ball/Lead Pitch (mils)        | 19.7            | 25.59           | 25.59           | 19.7            | 25.59           |     |
| Leadframe Plating Composition | NiPdAu          | Matte Sn        | NiPdAu          | NiPdAu          | NiPdAu          |     |

- QBS: Qual By Similarity

## 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>LM636xxxQDRRRQ1 / LM636xxxDQPWPRQ1                                                       | QBS Product Reference:<br>LM63625DQDRRQ1 | QBS Product Reference:<br>LM63635DQPWPQ1 | QBS Process ELFR Reference:<br>LMR33620CQRNXTQ<br>1 |
|------------------------------------------------------|----|----------------------------------|-------------|--------|-----------------------------------------------------|---------------------------|---------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------|-----------------------------------------------------|
| Test Group A – Accelerated Environment Stress Tests  |    |                                  |             |        |                                                     |                           |                                                                                                         |                                          |                                          |                                                     |
| PC                                                   | A1 | JEDEC J-STD-020 JESD22-A113      | 3           | 77     | Automotive Preconditioning                          | Level 2 - 260             | Refer to R-CHG-2410-069 for DRR in Clark-AT, R-CHG-2405-009 for PWP in TIEMA and R-CHG-2403-108 in MLA. | Pass Level 2-260C                        | Pass Level 3-260C                        | -                                                   |
| HAST                                                 | A2 | JEDEC JESD22-A110                | 3           | 77     | Biased HAST, 130C/85%RH                             | 96 Hours                  |                                                                                                         | 3/231/0                                  | 3/231/0                                  | -                                                   |
| uHAST                                                | A3 | JEDEC JESD22-A102                | 3           | 77     | Unbiased HAST 130C                                  | 96 Hours                  |                                                                                                         | 3/231/0                                  | 3/231/0                                  | -                                                   |
| TC                                                   | A4 | JEDEC JESD22-A104 and Appendix 3 | 3           | 77     | Temperature Cycle, -65/150C                         | 500 Cycles                |                                                                                                         | 3/231/0                                  | 3/231/0                                  | -                                                   |
| TC-BP                                                |    | MIL-STD883 Method 2011           | 1           | 30     | Post 500 Temp. Cycle, Bond Pull                     | Wires                     |                                                                                                         | 1/30/0                                   | 1/5/0                                    | -                                                   |
| PTC                                                  | A5 | JEDEC JESD22-A105                | 1           | 45     | Power Temperature Cycle, -40/125C                   | 1000 Cycles               | N/A per Q100 rev J                                                                                      | N/A                                      | 1/45                                     | -                                                   |
| HTSL                                                 | A6 | JEDEC JESD22-A103                | 1           | 45     | High Temp Storage Bake, 175C or 150C                | 500 Hours<br>1000 hours   | Refer to R-CHG-2410-069 for DRR in Clark-AT, R-CHG-2405-009 for PWP in TIEMA and R-CHG-2403-108 in MLA. | 1/45/0                                   | 3/231/0                                  | -                                                   |
| Test Group B – Accelerated Lifetime Simulation Tests |    |                                  |             |        |                                                     |                           |                                                                                                         |                                          |                                          |                                                     |
| HTOL                                                 | B1 | JEDEC JESD22-A108                | 3           | 77     | Life Test, 150C                                     | 408 Hours                 | Device specific data                                                                                    | 1/77/0                                   | 3/231/0                                  | -                                                   |
| ELFR                                                 | B2 | AEC Q100-008                     | 3           | 800    | Early Life Failure Rate, 125C                       | 48 Hours                  | QBS to technology ELFR                                                                                  | QBS                                      | QBS                                      | 3/2400/0                                            |
| EDR                                                  | B3 | AEC Q100-005                     | 3           | 77     | NVM Endurance, Data Retention, and Operational Life | -                         | N/A                                                                                                     | N/A                                      | N/A                                      | N/A                                                 |
| Test Group C – Package Assembly Integrity Tests      |    |                                  |             |        |                                                     |                           |                                                                                                         |                                          |                                          |                                                     |
| WBS                                                  | C1 | AEC Q100-001                     | 1           | 30     | Bond Shear (Cpk>1.67)                               | Wires                     | Refer to R-CHG-2410-069 for DRR in Clark-AT, R-CHG-2405-009 for PWP in TIEMA and R-CHG-2403-108 in MLA. | 1/30/0                                   | 1/30/0 Pass                              | -                                                   |
| WBP                                                  | C2 | MIL-STD883 Method 2011           | 1           | 30     | Bond Pull (Cpk>1.67)                                | Wires                     |                                                                                                         | 1/30/0                                   | 1/30/0 Pass                              | -                                                   |
| SD                                                   | C3 | JEDEC JESD22-B102                | 1           | 15     | Surface Mount Solderability >95% Lead Coverage      | -                         |                                                                                                         | 1/15/0                                   | 1/15/0                                   | -                                                   |
| PD                                                   | C4 | JEDEC JESD22-B100 and B108       | 3           | 10     | Physical Dimensions (Cpk>1.67)                      | -                         |                                                                                                         | 3/30/0                                   | 3/30/0                                   | -                                                   |
| SBS                                                  | C5 | AEC Q100-010                     | 3           | 50     | Solder Ball Shear (Cpk>1.67)                        | Solder Balls              | N/A                                                                                                     | N/A                                      | N/A                                      | N/A                                                 |
| Test Group D – Die Fabrication Reliability Tests     |    |                                  |             |        |                                                     |                           |                                                                                                         |                                          |                                          |                                                     |
| EM                                                   | D1 | JESD61                           | -           | -      | Electromigration                                    | -                         | Completed Per Process Technology Requirements                                                           |                                          |                                          |                                                     |
| TDDb                                                 | D2 | JESD35                           | -           | -      | Time Dependent Dielectric Breakdown                 | -                         | Completed Per Process Technology Requirements                                                           |                                          |                                          |                                                     |
| HCI                                                  | D3 | JESD60 & 28                      | -           | -      | Hot Injection Carrier                               | -                         | Completed Per Process Technology Requirements                                                           |                                          |                                          |                                                     |
| NBTI                                                 | D4 | -                                | -           | -      | Negative Bias Temperature Instability               | -                         | Completed Per Process Technology Requirements                                                           |                                          |                                          |                                                     |
| SM                                                   | D5 | -                                | -           | -      | Stress Migration                                    | -                         | Completed Per Process Technology Requirements                                                           |                                          |                                          |                                                     |
| Test Group E – Electrical Verification Tests         |    |                                  |             |        |                                                     |                           |                                                                                                         |                                          |                                          |                                                     |
| HBM                                                  | E2 | AEC Q100-002                     | 1           | 3      | ESD - HBM                                           | 2000V                     | Device specific data from original DRR and PWP Q100 qualifications                                      | 1/3/0                                    | 1/3/0                                    | -                                                   |
| CDM                                                  | E3 | AEC Q100-011                     | 1           | 3      | ESD - CDM                                           | 750V                      | Device specific data from original DRR / PWP packages                                                   | 1/3/0                                    | 1/3/0                                    | -                                                   |
| LU                                                   | E4 | AEC Q100-004                     | 1           | 6      | Latch-up                                            | (Per AED Q100-004)        | Device specific data from original DRR / PWP packages                                                   | 1/6/0                                    | 1/6/0                                    | -                                                   |
| ED                                                   | E5 | AEC Q100-005                     | 3           | 30     | Electrical Distribution                             | Cpk>1.6 Room, Hot, & Cold | Device specific data from original DRR / PWP packages                                                   | 3/30/0                                   | 3/30/0                                   | -                                                   |

A1 (PC): Preconditioning:

Performed for THB, Biased HAST, AC, uHAST, TC & PTC samples, as applicable.

**Ambient Operating Temperature by Automotive Grade Level:**

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

**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  
Green/Pb-free Status:  
Qualified Pb-Free(SMT) and Green  
TI Qualification ID: 20201212-137488, R-NPD-2512-048

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

Approve Date 02-December-2025

**Product Attributes**

| Attributes               | Qual Device:          | QBS Process Reference: |
|--------------------------|-----------------------|------------------------|
|                          | <u>DRV8876QPWPRQ1</u> | <u>DRV8873SPWPRQ1</u>  |
| Automotive Grade Level   | Grade 1               | Grade 1                |
| Operating Temp Range (C) | -40 to 125            | -40 to 125             |
| Product Function         | Signal Chain          | Signal Chain           |
| Wafer Fab Supplier       | RFAB                  | RFAB                   |
| Assembly Site            | TIEMA                 | TAI                    |
| Package Group            | TSSOP                 | TSSOP                  |
| Package Designator       | PWP                   | PWP                    |
| Pin Count                | 16                    | 24                     |

QBS: Qual By Similarity, also known as Generic Data

Qual Device DRV8876QPWPRQ1 is qualified at MSL1 260C

Per AEC-Q100J A1.3: The PCN devices are categorized as a qualification family and QBS to DRV8876QPWPRQ1 Group A data for the critical attributes in Die sizes, Package Type, Assembly Process and Site

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 test purpose is for silicon defects, they do not get influenced by assembly site or BOM differences.

Note 2: One lot ED 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>DRV8876QPWPRQ1                | QBS Process Reference:<br>DRV8873SPWPRQ1      |
|------------------------------------------------------|----|-------------------------------------|-------------|----------|-------------------------------------|-----------------------------------------|-------------|-----------------------------------------------|-----------------------------------------------|
| Test Group A - Accelerated Environment Stress Tests  |    |                                     |             |          |                                     |                                         |             |                                               |                                               |
| PC                                                   | A1 | JEDEC J-STD-020 JESD22-A113         | 3           | 77       | Preconditioning                     | MSL1 260C                               | -           | 3/231/0                                       | -                                             |
| 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                   | -65C/150C                               | 500 Cycles  | 3/231/0                                       | -                                             |
| TC-BP                                                | A4 | MIL-STD883 Method 2011              | 1           | 5        | Post Temp Cycle Bond Pull           | -                                       | -           | 1/5/0                                         | -                                             |
| TC-SAM                                               | A4 | -                                   | 3           | 3        | Post TC SAM                         | <50% delamination                       | -           | 3/36/0                                        | -                                             |
| PTC                                                  | A5 | JEDEC JESD22-A105                   | 1           | 45       | PTC                                 | -40/125C                                | 1000 Cycles | N/A                                           | -                                             |
| HTSL                                                 | A6 | JEDEC JESD22-A103                   | 1           | 45       | High Temperature Storage Life       | 175C                                    | 500 Hours   | 3/135/0                                       | -                                             |
| Test Group B - Accelerated Lifetime Simulation Tests |    |                                     |             |          |                                     |                                         |             |                                               |                                               |
| HTOL                                                 | B1 | JEDEC JESD22-A108                   | 3           | 77       | Life Test                           | 125C                                    | 1000 Hours  | Note 1                                        | 3/231/0                                       |
| ELFR                                                 | B2 | AEC Q100-008                        | 3           | 800      | Early Life Failure Rate             | 125C                                    | 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                      | -           | 1/15/0                                        | -                                             |
| 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                        | 3           | 30       | Electrical Distributions            | Cpk>1.67 Room, hot, and cold            | -           | 1/30/0 Note 2                                 | -                                             |

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:

TI Qualification ID: R-CHG-2405-009

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

**Q006 TSSOP at TIEMA**  
Approve Date 02-December-2025

### Product Attributes

| Attributes               | Qual Device:          |
|--------------------------|-----------------------|
|                          | <u>DRV8876QPWPRQ1</u> |
| Automotive Grade Level   | Grade 1               |
| Operating Temp Range (C) | -40 to 125            |
| Product Function         | Signal Chain          |
| Wafer Fab Supplier       | RFAB                  |
| Assembly Site            | TIEMA                 |
| Package Group            | TSSOP                 |
| Package Designator       | PWP                   |
| Pin Count                | 16                    |

### 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><u>DRV8876QPWPRQ1</u> |
|-----------------------------------------------------|--------|-----------------------------|-------------|----------|---------------------------------------|---------------------------|-----------|---------------------------------------|
| Test Group A - Accelerated Environment Stress Tests |        |                             |             |          |                                       |                           |           |                                       |
| PC                                                  | A1     | JEDEC J-STD-020 JESD22-A113 | 3           | 77       | Preconditioning                       | MSL1 260C                 | -         | 3/231/0                               |
| 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 | -         | -                                     |
| HAST                                                | A2.1.3 | -                           | 3           | 3        | Wire Bond Shear, post bHAST, 1X       | Post stress               | -         | -                                     |
| HAST                                                | A2.1.4 | -                           | 3           | 3        | Bond Pull over Stitch, post bHAST, 1X | Post stress               | -         | -                                     |
| HAST                                                | A2.1.5 | -                           | 3           | 3        | Bond Pull over Ball, post bHAST, 1X   | Post stress               | -         | -                                     |
| 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                             | Completed   | 3/9/0   |
| HAST                                            | A2.2.4 | -                                | 3 | 3  | Bond Pull over Stitch, post bHAST, 2X | Post stress                             | Completed   | 3/9/0   |
| HAST                                            | A2.2.5 | -                                | 3 | 3  | Bond Pull over Ball, post bHAST, 2X   | Post stress                             | Completed   | 3/9/0   |
| TC                                              | A4.1   | JEDEC JESD22-A104 and Appendix 3 | 3 | 77 | Temperature Cycle                     | -65C/150C                               | 500 Cycles  | 3/231/0 |
| TC                                              | A4.1.1 | -                                | 3 | 22 | SAM Analysis, post TC 1X              | Review for delamination                 | Completed   | -       |
| TC                                              | A4.1.2 | -                                | 3 | 1  | Cross Section, post TC, 1X            | Post stress cross section               | -           | -       |
| TC                                              | A4.1.3 | -                                | 3 | 3  | Wire Bond Shear, post TC, 1X          | Post stress                             | -           | -       |
| TC                                              | A4.1.4 | -                                | 3 | 3  | Bond Pull over Stitch, post TC, 1X    | Post stress                             | -           | -       |
| TC                                              | A4.1.5 | -                                | 3 | 3  | Bond Pull over Ball, post TC, 1X      | Post stress                             | -           | -       |
| TC                                              | A4.2   | JEDEC JESD22-A104 and Appendix 3 | 3 | 70 | Temperature Cycle                     | -65C/150C                               | 1000 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   |
| PTC                                             | A5.1   | JEDEC JESD22-A105                | 1 | 45 | PTC                                   | -40/125C                                | 1000 Cycles | N/A     |
| PTC                                             | A5.2   | JEDEC JESD22-A105                | 1 | 45 | PTC                                   | -40/125C                                | 2000 Cycles | N/A     |
| HTSL                                            | A6.1   | JEDEC JESD22-A103                | 3 | 45 | High Temperature Storage Life         | 175C                                    | 500 Hours   | 3/135/0 |
| HTSL                                            | A6.1.1 | -                                | 3 | 1  | Cross Section, post HTSL, 1X          | Post stress cross section               | -           | -       |
| HTSL                                            | A6.2   | JEDEC JESD22-A103                | 3 | 44 | High Temperature Storage Life         | 175C                                    | 1000 Hours  | 3/132/0 |
| HTSL                                            | A6.2.1 | -                                | 3 | 1  | Cross Section, post HTSL, 2X          | Post stress cross section               | Completed   | 3/3/0   |
| 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  |

Qual Device DRV8876QPWPRQ1 is qualified at MSL1 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.

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:

TI Qualification ID: R-CHG-2405-009



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.

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