

| PCN Number: | 20230406001.2 | | PCN Date: | April 06, 2023 | | | | | | | | | | | | | | | | | | | |
|--|---|-------------------------------------|--|--------------------------|--------------------------|------------------|-----------------------------|------------------------------|----------------|--------------|--------------|------------------|--------------|----------------|--------------|------------|-------------------|--------|-------|-------|------|-------|-------|
| Title: | Qualification of RFAB as an additional Fab site option for select HPA07 devices | | | | | | | | | | | | | | | | | | | | | | |
| Customer Contact: | PCN Manager | | Dept: | Quality Services | | | | | | | | | | | | | | | | | | | |
| Proposed 1st Ship Date: | Oct 6, 2023 | | Sample Requests accepted until: | May 6, 2023* | | | | | | | | | | | | | | | | | | | |
| *Sample requests received after May 6, 2023 will not be supported. | | | | | | | | | | | | | | | | | | | | | | | |
| Change Type: | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Assembly Site | <input type="checkbox"/> | Assembly Process | <input type="checkbox"/> | Assembly Materials | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Design | <input type="checkbox"/> | Electrical Specification | <input type="checkbox"/> | Mechanical Specification | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Test Site | <input type="checkbox"/> | Packing/Shipping/Labeling | <input type="checkbox"/> | Test Process | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Wafer Bump Site | <input type="checkbox"/> | Wafer Bump Material | <input type="checkbox"/> | Wafer Bump Process | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | Wafer Fab Site | <input checked="" type="checkbox"/> | Wafer Fab Materials | <input type="checkbox"/> | Wafer Fab Process | | | | | | | | | | | | | | | | | | |
| | | <input type="checkbox"/> | Part number change | | | | | | | | | | | | | | | | | | | | |
| PCN Details | | | | | | | | | | | | | | | | | | | | | | | |
| Description of Change: | | | | | | | | | | | | | | | | | | | | | | | |
| Texas Instruments is pleased to announce the addition of RFAB as an additional Wafer Fab site option for the products listed in the "Product Affected" section of this document. | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th colspan="3">Current Fab Site</th> <th colspan="3">New Fab Site</th> </tr> <tr> <th>Current Fab Site</th> <th>Process</th> <th>Wafer Diameter</th> <th>New Fab Site</th> <th>Process</th> <th>Wafer Diameter</th> </tr> </thead> <tbody> <tr> <td>DP1DM5</td> <td>HPA07</td> <td>200mm</td> <td>RFAB</td> <td>HPA07</td> <td>300mm</td> </tr> </tbody> </table> | | | | | | Current Fab Site | | | New Fab Site | | | Current Fab Site | Process | Wafer Diameter | New Fab Site | Process | Wafer Diameter | DP1DM5 | HPA07 | 200mm | RFAB | HPA07 | 300mm |
| Current Fab Site | | | New Fab Site | | | | | | | | | | | | | | | | | | | | |
| Current Fab Site | Process | Wafer Diameter | New Fab Site | Process | Wafer Diameter | | | | | | | | | | | | | | | | | | |
| DP1DM5 | HPA07 | 200mm | RFAB | HPA07 | 300mm | | | | | | | | | | | | | | | | | | |
| Qual details are provided in the Qual Data Section. | | | | | | | | | | | | | | | | | | | | | | | |
| Reason for Change: | | | | | | | | | | | | | | | | | | | | | | | |
| Continuity of supply | | | | | | | | | | | | | | | | | | | | | | | |
| Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative): | | | | | | | | | | | | | | | | | | | | | | | |
| None | | | | | | | | | | | | | | | | | | | | | | | |
| Changes to product identification resulting from this PCN: | | | | | | | | | | | | | | | | | | | | | | | |
| Fab Site Information: | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Chip Site</th> <th>Chip Site Origin Code (20L)</th> <th>Chip Site Country Code (21L)</th> <th>Chip Site City</th> </tr> </thead> <tbody> <tr> <td>DP1DM5</td> <td>DM5</td> <td>USA</td> <td>Dallas</td> </tr> <tr> <td>RFAB</td> <td>RFB</td> <td>USA</td> <td>Richardson</td> </tr> </tbody> </table> | | | | | | Chip Site | Chip Site Origin Code (20L) | Chip Site Country Code (21L) | Chip Site City | DP1DM5 | DM5 | USA | Dallas | RFAB | RFB | USA | Richardson | | | | | | |
| Chip Site | Chip Site Origin Code (20L) | Chip Site Country Code (21L) | Chip Site City | | | | | | | | | | | | | | | | | | | | |
| DP1DM5 | DM5 | USA | Dallas | | | | | | | | | | | | | | | | | | | | |
| RFAB | RFB | USA | Richardson | | | | | | | | | | | | | | | | | | | | |
| Sample product shipping label (not actual product label) | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| Product Affected: | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tbody> <tr> <td>DAC5311IDCKR</td> <td>DAC6311IDCKT</td> <td>DAC8311IDCKR</td> <td>DAC8411IDCKR</td> </tr> <tr> <td>DAC5311IDCKT</td> <td>DAC7311IDCKR</td> <td>DAC8311IDCKT</td> <td>DAC8411IDCKT</td> </tr> <tr> <td>DAC6311IDCKR</td> <td>DAC7311IDCKT</td> <td></td> <td></td> </tr> </tbody> </table> | | | | | | DAC5311IDCKR | DAC6311IDCKT | DAC8311IDCKR | DAC8411IDCKR | DAC5311IDCKT | DAC7311IDCKR | DAC8311IDCKT | DAC8411IDCKT | DAC6311IDCKR | DAC7311IDCKT | | | | | | | | |
| DAC5311IDCKR | DAC6311IDCKT | DAC8311IDCKR | DAC8411IDCKR | | | | | | | | | | | | | | | | | | | | |
| DAC5311IDCKT | DAC7311IDCKR | DAC8311IDCKT | DAC8411IDCKT | | | | | | | | | | | | | | | | | | | | |
| DAC6311IDCKR | DAC7311IDCKT | | | | | | | | | | | | | | | | | | | | | | |

Qualification Report
Approve Date 24-MARCH -2023

Qualification Results

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

| Type | # | Test Name | Condition | Duration | Qual Device: DAC7311IDCKT | QBS Process Reference: CD3232A1YFFR | QBS Process Reference: CD3232A1YFFR | QBS Process Reference: INA231AIYFDR | QBS Process Reference: INA231BIYFDR | QBS Process Reference: DRV401AIRGWR |
|-------|----|-------------------------------------|--------------------------------|---------------|------------------------------|---|---|---|---|---|
| HAST | A2 | Biased HAST | 130C/85%RH | 96 Hours | - | 3/231/0 | 3/231/0 | - | - | - |
| UHAST | A3 | Unbiased HAST | 130C/85%RH | 96 Hours | - | 3/231/0 | 3/231/0 | - | - | - |
| TC | A4 | Temperature Cycle | -55C/125C | 700 Cycles | - | 3/231/0 | 3/231/0 | - | - | - |
| HTSL | A6 | High Temperature Storage Life | 170C | 420 Hours | - | 3/231/0 | 3/231/0 | 1/77/0 | 2/154/0 | - |
| HTOL | B1 | Life Test | 140C | 480 Hours | - | 1/77/0 | 2/154/0 | - | - | - |
| HTOL | B1 | Life Test | 150C | 300 Hours | - | - | - | 1/77/0 | 2/154/0 | 2/154/0 |
| ELFR | B2 | Early Life Failure Rate | 125C | 48 Hours | - | 1/1000/0 | 2/2000/0 | 1/1000/0 | 2/2000/0 | - |
| ESD | E2 | ESD CDM | - | 250 Volts | 1/3/0 | - | - | 1/3/0 | 2/6/0 | 2/6/0 |
| ESD | E2 | ESD HBM | - | 1000 Volts | 1/3/0 | 3/9/0 | 3/9/0 | 1/3/0 | 2/6/0 | 2/6/0 |
| LU | E4 | Latch-Up | Per JESD78 | - | 1/3/0 | 3/9/0 | 3/9/0 | 1/6/0 | 2/12/0 | 2/6/0 ^{2,3} |
| CHAR | E5 | Electrical Characterization | Per Datasheet Parameters | - | 1/30/0 | 1/30/0 | 1/30/0 | 1/30/0 | 2/60/0 | 1/30/0 |
| FTY | E6 | Final Test Yield | - | - | 1/Pass | - | - | - | - | - |

- QBS: Qual By Similarity
- Qual Device DAC7311IDCKT is qualified at MSL1 260C
- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable
- The following are equivalent HTOL options based on an activation energy of 0.7eV: 125C/1k Hours, 140C/480 Hours, 150C/300 Hours, and 155C/240 Hours
- The following are equivalent HTSL options based on an activation energy of 0.7eV: 150C/1k Hours, and 170C/420 Hours
- The following are equivalent Temp Cycle options per JESD47: -55C/125C/700 Cycles and -65C/150C/500 Cycles

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

Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

- [1]-Waiver from CF
[2]-Passes room and hot
[3]-Passes room and hot

For questions regarding this notice, e-mails can be sent to the contact shown below or your local Field Sales Representative.

| Location | E-Mail |
|---------------------------|--|
| WW Change Management Team | PCN_ww_admin_team@list.ti.com |

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