

PCN Number: 20150821001 **PCN Date:** 08/24/2015

Title: Qualification of FFAB as an additional Wafer Fab site option for select devices in BICMOS13 Technology

Customer Contact: [PCN Manager](#) **Dept:** Quality Services

Proposed 1st Ship Date: 11/24/2015 **Estimated Sample Availability:** Date provided at sample request.

| | | |
|--|--|---|
| 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 type="checkbox"/> Wafer Fab Materials | <input type="checkbox"/> Wafer Fab Process |
| | <input type="checkbox"/> Part number change | |

PCN Details

Description of Change:

This change notification is to announce the addition of FFAB as an additional Wafer Fab site option for the products listed in the product affected section of this document.

| Current Wafer Fab Site | Process | Wafer Diameter |
|---------------------------|----------|----------------|
| MAINEFAB | BICMOS13 | 200mm |
| Additional Wafer Fab Site | Process | Wafer Diameter |
| FFAB | BICMOS13 | 200mm |

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:




Current

| Chip Site | Chip Site Origin (20L) | Chip Site Country Code (21L) | Chip Site City |
|-----------|------------------------|------------------------------|----------------|
| MAINEFAB | CUA | USA | South Portland |

New

| Chip Site | Chip Site Origin (20L) | Chip Site Country Code (21L) | Chip Site City |
|-----------|------------------------|------------------------------|----------------|
| FR-BIP-1 | TID | DEU | Freising |

Sample product shipping label (not actual product label)

| | | | | | | | |
|--|------------------------|---------|----------------------|----------|---|---|--|
|  <p>MADE IN: Malaysia 2DC: 20:</p> <table border="1"> <tr> <td>MSL '2 / 260C / 1 YEAR</td> <td>SEAL DT</td> </tr> <tr> <td>MSL 1 / 235C / UNLIM</td> <td>03/29/04</td> </tr> </table> <p>OPT: ITEM: 39 LBL: 5A (L)T0:1750</p> | MSL '2 / 260C / 1 YEAR | SEAL DT | MSL 1 / 235C / UNLIM | 03/29/04 |  |  | <p>(1P) SN74LS07NSR (Q) 2000 (D) 0336 (31T) LOT: 3959047MLA (4W) TKY (1T) 7523483S12 (P) (2P) REV: (V) 0033317 (20L) CSO: SHE (21L) CCO: USA (22L) ASO: MLA (23L) ACO: MYS</p> |
| MSL '2 / 260C / 1 YEAR | SEAL DT | | | | | | |
| MSL 1 / 235C / UNLIM | 03/29/04 | | | | | | |

Product Affected:

| | | | |
|--------------------|--------------------|--------------------|--------------------|
| DS100BR210SQ/NOPB | DS110DX410SQ/NOPB | DS125BR820NJYR | DS80PCI800SQ/NOPB |
| DS100BR210SQE/NOPB | DS110DX410SQE/NOPB | DS125BR820NJYT | DS80PCI800SQE/NOPB |
| DS100DX410SQ/NOPB | DS125BR210SQ/NOPB | DS125DF111SQ | DS80PCI810NJYR |
| DS100DX410SQE/NOPB | DS125BR210SQE/NOPB | DS125DF111SQE | DS80PCI810NJYT |
| DS100KR401SQ/NOPB | DS125BR401SQ/NOPB | DS125DF410SQ/NOPB | LM97937RMER |
| DS100KR401SQE/NOPB | DS125BR401SQE/NOPB | DS125DF410SQE/NOPB | LM97937RMET |
| DS100KR800SQ/NOPB | DS125BR800SQ/NOPB | DS125RT410SQ/NOPB | LMX2581SQ/NOPB |
| DS100KR800SQE/NOPB | DS125BR800SQE/NOPB | DS125RT410SQE/NOPB | LMX2581SQE/NOPB |
| DS110DF111SQ/NOPB | DS125BR810NJYR | DS80PCI402SQ/NOPB | LMX2581SQX/NOPB |
| DS110DF111SQE/NOPB | DS125BR810NJYT | DS80PCI402SQE/NOPB | |

Qualification Report**BiCMOS13 Process (LMX2581B) Release at FFAB**

Approve Date 31-Jul-2015

Product Attributes

| Die Attributes | Qual Device: LMX2581SQENOPB |
|--------------------|-----------------------------|
| Wafer Fab Supplier | FFAB |
| Wafer Fab Process | BC13 |
| Wafer Diameter | 200mm |

- QBS: Qual by Similarity

- Qual Device LMX2581SQENOPB is qualified at LEVEL3-260CG

Qualification Results

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

| Type | Test Name / Condition | Duration | Qual Device: LMX2581SQENOPB |
|------|----------------------------------|--------------------------|-----------------------------|
| ELFR | Early Life Failure Rate, Tj=160C | 48 Hours | 3/2400/0 |
| HTOL | Life Test, Tj=160C | 500 Hours | 3/231/0 |
| AC | Autoclave 121C | 96 Hours | 3/231/0 |
| HAST | Biased HAST, 130C/85%RH | 96 Hours | 3/231/0 |
| TC | Temperature Cycle, -40/125C | 1000 Cycles | 3/231/0 |
| HTSL | High Temp. Storage Bake, 150C | 1000 Hours | 3/231/0 |
| HBM | ESD - HBM | 2000 V | 3/9/0 |
| CDM | ESD - CDM | 750 V | 3/9/0 |
| LU | Latch-up | (per JESD78) | 3/18/0 |
| ED | Electrical Characterization | Per datasheet parameters | Pass |

- 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

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

| Location | E-Mail |
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| USA | PCNAmericasContact@list.ti.com |
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