

| | | | |
|--|--|---|----------------------------------|
| PCN Number: | 20180308002 | PCN Date: | Mar 9, 2018 |
| Title: | Transfer of select VIP3 devices from GFAB to DFAB Wafer Fab site | | |
| Customer Contact: | PCN Manager | Dept: | Quality Services |
| Proposed 1st Ship Date: | Jun 9, 2018 | 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 checked="" 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 transfer of select VIP3 devices from GFAB to the DFAB (DL-LIN) Wafer Fab site for the selected devices listed in the "Product Affected" section.

| Current Fab Site | | | New Fab Site | | |
|------------------|---------|----------------|--------------|---------|----------------|
| Current Fab Site | Process | Wafer Diameter | New Fab Site | Process | Wafer Diameter |
| GFAB6 | VIP3 | 150 mm | DL-LIN | VIP3 | 200 mm |

Qual details are provided in the Qual Data Section.

Reason for Change:

Greenock, Scotland (GFAB) Wafer Fab site closure

Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):

None

Changes to product identification resulting from this PCN:

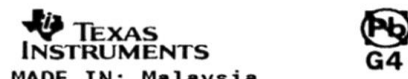
Current:

| Current Chip Site | Chip Site Origin Code (20L) | Chip Site Country Code (21L) | Chip Site City |
|-------------------|-----------------------------|------------------------------|----------------|
| GFAB6 | GF6 | GBR | Greenock |

New Fab Site:

| New Chip Site | Chip Site Origin Code (20L) | Chip Site Country Code (21L) | Chip Site City |
|---------------|-----------------------------|------------------------------|----------------|
| DL-LIN | DLN | USA | Dallas |

Sample product shipping label (not actual product label)



MADE IN: Malaysia
2DC: 2Q:

| | |
|-----------------------|----------|
| MSL 2 / 260C / 1 YEAR | SEAL DT |
| MSL 1 / 235C / UNLIM | 03/29/04 |

OPT:
ITEM: 39
LBL: 5A (L)T0:1750



(1P) SN74LS07NSR
(Q) 2000 (D) 0336
(31T) LOT: 3959047MLA
(4W) TKY (1T) 7523483S12
(P)
(2P) REV: (V) 0033317
(20L) CSO: SHE (21L) CCO: USA
(22L) ASO: MLA (23L) ACO: MYS

Product Affected:

| | | | |
|-------------------|-----------------|----------------|----------------|
| 5962F9560401V9A | LM7121IMX/NOPB | LM7322MA/NOPB | LM8262MM/NOPB |
| LM4562MA/NOPB | LM7171AIM | LM7322MAX/NOPB | LM8262MMX/NOPB |
| LM4562MA/S7002211 | LM7171AIM/NOPB | LM7322MM/NOPB | LM8272MM |
| LM4562MAX/NOPB | LM7171AIMX/NOPB | LM7322MME/NOPB | LM8272MM/NOPB |
| LM4562NA/NOPB | LM7171BIM | LM7332MA/NOPB | LM8272MMX/NOPB |

| | | | |
|--------------------|---------------------|--------------------|------------------|
| LM6171AIM | LM7171BIM/NOPB | LM7332MAX/NOPB | LME49600TS/NOPB |
| LM6171AIM/NOPB | LM7171BIMX/NOPB | LM7332MM/NOPB | LME49720MAX/NOPB |
| LM6171AIMX/NOPB | LM7171BIN/NOPB | LM7332MME/NOPB | LME49720NA/NOPB |
| LM6171BIM | LM7301IM | LM7332MMX/NOPB | LME49724MA/NOPB |
| LM6171BIM/NOPB | LM7301IM/NOPB | LM7341MF/NOPB | LME49724MR/NOPB |
| LM6171BIMX/NOPB | LM7301IM5 | LM7341MFE/NOPB | LME49724MRX/NOPB |
| LM6171BIN/NOPB | LM7301IM5/NOPB | LM7341MFX/NOPB | LME49860MAX/NOPB |
| LM6172 MDR | LM7301IM5X | LM7372IMA | LMH6321MR/NOPB |
| LM6172IM | LM7301IM5X/NOPB | LM7372IMA/NOPB | LMH6321MRX/NOPB |
| LM6172IM/NOPB | LM7301IM5X/S5000655 | LM7372IMAX/NOPB | LMH6321TS/NOPB |
| LM6172IMX | LM7301IM5X/S7000823 | LM7372MR/NOPB | LMH6321TSX/NOPB |
| LM6172IMX/E7001904 | LM7301IM5X/SL110603 | LM7372MRX | TLV87321DBVR |
| LM6172IMX/NAK2 | LM7301IMX/E7002184 | LM7372MRX/NOPB | TLV87321DBVT |
| LM6172IMX/NOPB | LM7301IMX/NOPB | LM8261M5 | TLV87321DR |
| LM6172IN/NOPB | LM7321MA/NOPB | LM8261M5/NOPB | TLV87321DT |
| LM7121IM | LM7321MAX/NOPB | LM8261M5X | TLV87322DGKR |
| LM7121IM/NOPB | LM7321MF/NOPB | LM8261M5X/J7002376 | TLV87322DGKT |
| LM7121IM5 | LM7321MFE/NOPB | LM8261M5X/NOPB | TLV87322DR |
| LM7121IM5/NOPB | LM7321MFX/NOPB | LM8262MM | TLV87322DT |
| LM7121IM5X/NOPB | | | |

Qualification Report

VIP3 Qualification at DFAB

Approve Date 06-Mar-2018

Product Attributes

| Attributes | Qual Device: LM6172IM/NOPB |
|---------------------|----------------------------|
| Assembly Site | TIEMA |
| Package Family | SOIC |
| Flammability Rating | 1 |
| Wafer Fab Supplier | DFAB 200MM |
| Wafer Process | VIP3 |

- Qual Devices qualified at LEVEL1-260CG: LM6172IM/NOPB

Qualification Results

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

| Type | Test Name / Condition | Duration | Qual Device: LM6172IM/NOPB |
|------|-----------------------------------|-------------------------------|----------------------------|
| AC | Autoclave 121C | 96 Hours | 3/231/0 |
| ED | Electrical Distributions | Cpk>1.67 Room, Hot, & Cold | 3/90/0 |
| ELFR | Early Life Failure Rate, 125C | 48 Hours | 3/2400/0 |
| HAST | Biased HAST, 130C/85%RH | 96 Hours | 3/231/0 |
| HTOL | Life Test, 125C | 1000 Hours | 3/231/0 |
| HTSL | High Temp. Storage Bake, 150C | 1000 Hours | 3/231/0 |
| MQ | Manufacturability (Auto Assembly) | (per automotive requirements) | Pass |
| MQ | Manufacturability (Wafer Fab) | (per mfg. Site specification) | Pass |
| TC | Temperature Cycle, -65/150C | 500 Cycles | 3/231/0 |
| WBP | Post Temp. Cycle, Bond Pull | 500 Cycles | 3/15/0 |

- 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

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 |
|-----------------|--|
| USA | PCNAmericasContact@list.ti.com |
| Europe | PCNEuropeContact@list.ti.com |
| Asia Pacific | PCNAsiaContact@list.ti.com |
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