| PCN Number: 201 | | 170721001 | | PCN | PCN Date: Jul 27, 2017 | | Jul 27, 2017 | |
|-------------------------------------|-----------|--|------------------|---------------------|-------------------------------|--------------------|----------------------------------|--|
| Title: Qualification of UM | | ICI as an additional Fab site option for select C014 devices | | | | | | |
| Customer Contact: | | PCN Manager | | Dept: | | | Quality Services | |
| Proposed 1 st Ship Date: | | Oct 27, 2017 Estimat Availab | | ated Sample bility: | | le | Date provided at sample request. | |
| Change Type: | | | | | | | | |
| Asser | nbly Site | | Assembly Process | | | Assembly Materials | | |
| Design | | ☐ Electrical Specification | | | | Me | chanical Specification | |
| Test Site | | Packing/Shipping/Labeling | | | | Tes | st Process | |
| ☐ Wafer Bump Site | | ☐ Wafer Bump Material | | | | Wa | afer Bump Process | |
| | | | | | \boxtimes | Wa | afer Fab Process | |
| | | Part number change | | • | | | | |
| PCN Details | | | | | | | | |

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of UMCI fabrication facility as an additional Wafer Fab source for the selected devices listed in the "Product Affected" section.

| С | urrent Fab Site | е | Additional Fab Site | | |
|---------------------|-----------------|-------------------|---------------------|---------|-------------------|
| Current Fab Site | Process | Wafer Diameter | New Fab Site | Process | Wafer Diameter |
| UMC-F12 | C014 | 300 mm | UMCI | C014 | 300 mm |

Passivation differences are noted below:

| Change From | Change To | | |
|-------------------------------|--------------------------------|--|--|
| HDP + PSG + PCSiN passivation | PEOX + PSG + HCSiN passivation | | |

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:

Current:

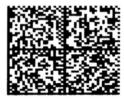
| Current Chip Site | Chip Site Origin Code (20L) | Chip Site Country Code (21L) | Chip Site City |
|-------------------|-----------------------------|------------------------------|----------------|
| UMC-F12 | F12 | TWN | Tainan |

New Fab Site:

| New Chip Site | Chip Site Origin Code (20L) | Chip Site Country Code (21L) | Chip Site City |
|---------------|-----------------------------|------------------------------|----------------|
| UMCI | UMI | SGP | Singapore |

Sample product shipping label (not actual product label)





(1P) SN74LS07NSR (a) 2000 (P) 0336 31T)LOT: 3959047MLA 4W) TKY(1T) 7523483S12 (P) (20L) CSO: SHE (21L) CCO:USA (22L) ASO: MLA (23L) ACO: HYS

| Product Affected: | | | |
|--------------------------|----------------|----------------|-------------------|
| AM3351BZCE30 | AM3352BZCZA80 | AM3356BZCEA60 | AMIC110BZCZA |
| AM3351BZCE60 | AM3352BZCZD30 | AM3356BZCZ30 | FX053013 |
| AM3351BZCEA30 | AM3352BZCZD60 | AM3356BZCZ60 | SN12065850BZCE |
| AM3351BZCEA60 | AM3352BZCZD80 | AM3356BZCZ80 | SN12095260BZCE |
| AM3352BZCE30 | AM3352BZCZT60 | AM3356BZCZA30 | SN13095280BZCZ |
| AM3352BZCE30R | AM3352BZCZT60R | AM3356BZCZA60 | SN13095660BZCZR |
| AM3352BZCE60 | AM3352ZZCZA60 | AM3356BZCZA80 | SN14015260BZCZ |
| AM3352BZCEA30 | AM3354BZCE60 | AM3356BZCZD30 | SN14025260BZCZ |
| AM3352BZCEA30R | AM3354BZCEA60 | AM3356BZCZD60 | SN14075660BZCZDR |
| AM3352BZCEA60 | AM3354BZCED60 | AM3357BZCZA30 | SN14085660BZCZDR |
| AM3352BZCEA60R | AM3354BZCZ100 | AM3357BZCZA60 | SN15065260BZCZ |
| AM3352BZCED30 | AM3354BZCZ30 | AM3357BZCZA80 | SN150752100BZCZAR |
| AM3352BZCED60 | AM3354BZCZ60 | AM3357BZCZD30 | SN15075260BZCZ |
| AM3352BZCZ100 | AM3354BZCZ80 | AM3357BZCZD60 | SN150952100BZCZ |
| AM3352BZCZ30 | AM3354BZCZA100 | AM3358BYS | SN15095260BZCZ |
| AM3352BZCZ60 | AM3354BZCZA60 | AM3358BZCZ100 | SN15095660BZCZR |
| AM3352BZCZ80 | AM3354BZCZA80 | AM3358BZCZ60 | SN15125260BZCZD |
| AM3352BZCZA100 | AM3354BZCZA80R | AM3358BZCZ80 | SN16085660BZCZAR |
| AM3352BZCZA100R | AM3354BZCZD60 | AM3358BZCZA100 | SN278792960 |
| AM3352BZCZA30 | AM3354BZCZD80 | AM3358BZCZA80 | SUBARCTICBDEVZCZ |
| AM3352BZCZA60 | AM3354BZCZD80R | AM3359BZCZA80 | TNETV2241BZCZ |

Qualification Report

Qualification of UMCi as Second Source Fab Site for AM335xB Approved 7/19/17

Product Attributes

| Attributes | Qual Device: XDRA618BIZCZ (1) | | |
|--------------------|-------------------------------|--|--|
| Assembly Site | PHI | | |
| Package Family | NFBGA | | |
| Wafer Fab Supplier | UMCi | | |
| Wafer Fab Process | C014.M | | |

⁻ Qual Device XDRA618BIZCZ is qualified at LEVEL3-260CP

Qualification Results

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

| Type | Test Name / Condition | Duration | Qual Device: XDRA618BIZCZ (1) |
|-------|--|-----------------------------------|-------------------------------|
| HTOL | Life Test, 135C Tj | 1000 Hours | 3/231/0 |
| HTSL | High Temp Storage Bake 150C | 1000 Hours | 3/231/0 |
| TC | Temperature Cycle, -55/125C | 1000 Cycles | 3/231/0 |
| THB | Biased Temperature and Humidity, 85C/85%RH | 1000 Hours | 3/231/0 |
| UHAST | Unbiased HAST 110C/85%RH | 96 Hours | 3/231/0 |
| CDM | ESD - CDM | 500 V | 1/5/0 |
| HBM | ESD - HBM | 2000 V | 1/5/0 |
| LU | Latch-up | +/- 45 mA and 1.5 x Vmax @ max Tj | 1/6/0 |

^{- (1)} XDRA618BIZCZ is the automotive version of the AM335x device family and is functionally equivalent

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

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

 $⁻ The following are equivalent \ HTOL\ options\ based on\ an\ activation\ energy\ of\ 0.7eV:\ 125C/1k\ Hours,\ 140C/480\ Hours,\ 150C/300\ Hours,\ and\ 155C/240\ Hours,\ 150C/300\ Hours,\ 15$

⁻ 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

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 |
| Japan | PCNJapanContact@list.ti.com |