| PCN Number: | 20191211002.2 | PCN Date: | Dec 13 2019 |
|---|---|---|---|
| Title: | Qualification of TI Malaysia as an additional AT site for the AMC1200STDUBRQ1 | | |
| Customer Contact: | PCN Manager | Dept: | Quality Services |
| Proposed 1st Ship Date: | Jun 10 2020 | Estimated Sample Availability: | Date provided at sample request |

**Change Type:**

| | | | | | |
|---|---|---|---|---|---|
| ☒ | Assembly Site | ☐ | Design | ☐ | Wafer Bump Site |
| ☐ | Assembly Process | ☐ | Data Sheet | ☐ | Wafer Bump Material |
| ☒ | Assembly Materials | ☐ | Part number change | ☐ | Wafer Bump Process |
| ☐ | Mechanical Specification | ☐ | Test Site | ☐ | Wafer Fab Site |
| ☐ | Packing/Shipping/Labeling | ☐ | Test Process | ☐ | Wafer Fab Materials |
| | | | | ☐ | Wafer Fab Process |

## PCN Details

**Description of Change:**

Texas Instruments is pleased to announce the qualification of TI Malaysia as an additional assembly site for the AMC1200STDUBRQ1. Current assembly site and Material differences are as follows:

| | Hana | MLA |
|---|---|---|
| Mold Compound | SID#450265 | 4221499 |
| Mount Compound | SID#400180 | 4211470 |

**Reason for Change:**

Continuity of Supply

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

None

**Anticipated impact on Material Declaration**

| | | | |
|---|---|---|---|
| ☐ | No Impact to the Material Declaration | ☒ | Material Declarations or Product Content reports are driven from production data and will be available following the production release. Upon production release the revised reports can be obtained at the site link below http://www.ti.com/quality/docs/materialcontentsearch.tsp |

**Changes to product identification resulting from this PCN:**

| Assembly Site | Assembly Site Origin (22L) | Assembly Country Code (23L) | Assembly City |
|---|---|---|---|
| Hana | HNT | THA | Ayutthaya |
| **MLA** | **MLA** | **MYS** | **Kuala Lumpur** |

Sample product shipping label (not actual product label)

G4

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)TO:1750

(1P) SN74LS07NSR
(Q) 2000 (D) 0336
(31T)LOT: 3959047MLA
(4W) TKY(1T) 7523483SI2
(P)
(2P) REV: (V) 0033317
(20L) CSO:SHE (21L) CCO:USA
(22L) ASO:MLA (23L) ACO:MYS

**Product Affected:**

AMC1200STDUBRQ1

TI Information
Selective Disclosure

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

**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: AMC1200STDUBRQ1 |
|---|---|---|---|---|---|---|---|
| **Test Group A – Accelerated Environment Stress Tests** | | | | | | | |
| PC | A1 | JEDEC J-STD-020 JESD22-A113 | 3 | 77 | Preconditioning | Level 3-260C | 1 Fail (1) |
| HAST | A2 | JEDEC JESD22-A110 | 3 | 77 | Biased HAST, 130C/85%RH | 96 Hours | 3/231/0 |
| AC | A3 | JEDEC JESD22-A102 | 3 | 77 | Autoclave 121C | 96 Hours | 3/231/0 |
| TC | A4 | JEDEC JESD22-A104 and Appendix 3 | 3 | 77 | Temperature Cycle, -65/150C | 500 Cycles | 3/231/0 |
| TC-BP | A4 | MIL-STD883 Method 2011 | 1 | 60 | Post Temp Cycle Bond Pull, 500 Cycles | Wires | 1/30/0 |
| PTC | A5 | JEDEC JESD22-A105 | 1 | 45 | Power Temperature Cycle | 1000 Cycles | N/A |
| HTSL | A6 | JEDEC JESD22-A103 | 1 | 45 | High Temp Storage Bake 150C | 1000 Hours | 1/45/0 |
| **Test Group B – Accelerated Lifetime Simulation Tests** | | | | | | | |
| HTOL | B1 | JEDEC JESD22-A108 | 3 | 77 | Life Test, 150C | 300 Hours | 3/231/0 |
| ELFR | B2 | AEC Q100-008 | 3 | 800 | Early Life Failure Rate, 125C | 24 Hours | 3/840/0 |
| EDR | B3 | AEC Q100-005 | 3 | 77 | NVM Endurance, Data Retention, and Operational Life | - | N/A |
| **Test Group C – Package Assembly Integrity Tests** | | | | | | | |
| WBS | C1 | AEC Q100-001 | 1 | 30 | Wire Bond Shear, Cpk>1.67 | Wires | 1/30/0 |
| WBP | C2 | MIL-STD883 Method 2011 | 1 | 30 | Bond Pull, Cpk>1.67 | Wires | 1/30/0 |
| SD | C3 | JEDEC JESD22-B102 | 1 | 15 | Surface Mount Solderability w Bake Precon | Pb Free Solder | 3/36/0 |
| SD | C3 | JEDEC JESD22-B102 | 1 | 15 | Surface Mount Solderability w Bake Precon | Pb Solder | 3/36/0 |
| PD | C4 | JEDEC JESD22-B100 and B108 | 3 | 10 | Physical Dimensions | Cpk>1.67 | 3/30/0 |
| **Test Group E – Electrical Verification Tests** | | | | | | | |
| CDM | E3 | AEC Q100-011 | 1 | 3 | ESD - CDM | 1500 V | 1/3/0 |
| ED | E5 | AEC Q100-009 | 3 | 30 | Electrical Distribution | Cpk>1.67 | 3/90/0 |

**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

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

| **Location** | **E-Mail** |
| --- | --- |
| USA | PCNAmericasContact@list.ti.com |
| Europe | PCNEuropeContact@list.ti.com |
| Asia Pacific | PCNAsiaContact@list.ti.com |
| WW PCN Team | PCN_ww_admin_team@list.ti.com |


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