| PCN Number: 20230706000.1 | | | 6000.1 | | | PCN Date: | July 06, 2023 | | |
|---|--|---|--|--|--|---------------------------------|--|---|--|
| Title: Qualification of additional mold and mount compound for select devices | | | | | | | | | |
| Customer Contact: Change Management Team Dept: Quality Services | | | | | | | | | |
| Proposed 1 st Ship Date: Oct 4, | | | 2023 | San | | | Aug 6, 2023 | | |
| *Sam | ple reques | sts receive | d after | Aug 6, 2023 w | ill not be | suppo | orted. | | |
| | ge Type: | | | | | _ | | | |
| | ssembly Sit | | | Design | | | Wafer Bump N | | |
| | ssembly Pro | | | Data Sheet | | | Wafer Bump F | | |
| | ssembly Ma | | | Part number | change | | Wafer Fab Sit | | |
| | echanical S | | | Test Site | | | Wafer Fab Ma | | |
| Pa | acking/Ship | ping/Labeliı | ng | Test Process | | | Wafer Fab Pro | ocess | |
| | | | | PCN Det | ails | | | | |
| Descr | iption of C | hange: | | | | | | | |
| below as follows: What Current New | | | | | | | | | |
| | V | Vhat | | Curr | ent | | Nev | v | |
| | | Vhat Compound | I | Curr 4207 | | | Nev 42071 | - | |
| | Mount (| | | | 768 | | | 23 | |
| | Mount (Mold C | Com pound Com pound | | 4207 | 768 | | 42071 | 23 | |
| Reaso | Mount (| Com pound Com pound | | 4207 | 768 | | 42071 | 23 | |
| | Mount (Mold C | Compound compound nge: | | 4207 | 768 | | 42071 | 23 | |
| Contin | Mount (Mold C on for Char | Compound compound nge: | | 4207 | 768 625 | ability | 42071 42221 | L 23 L 98 | |
| Contin | Mount (Mold C on for Char | Compound compound nge: | | 4207 4208 | 768 625 | ability | 42071 42221 | L 23 L 98 | |
| Contin Antici None | Mount (Mold C on for Char | Compound compound nge: oly act on For | m, Fit, I | 4207 4208 Function, Qual | 768 625 | ability | 42071 42221 | L 23 L 98 | |
| Contin Antici None Impac Checke | Mount (Mold C on for Char uity of supp ipated imp ct on Envir ed boxes in | Compound compound nge: oly act on For conmental dicate the s | m, Fit, Ratings | 4207 4208 Function, Qual | 768 625 ity or Reli ratings foll | owing | 42071 42221 y (positive / r | h of this change. | |
| Contin Antici None Impac Checke If belo | Mount (Mold C on for Char auity of supp ipated imp ct on Envir ed boxes in w boxes are RoHS | Compound compound nge: oly act on For conmental dicate the se e checked, | m, Fit, Ratings status of there ar R | 4207 4208 Function, Qual s f environmental re no changes to EACH | 768 625 ity or Reli ratings foll the associ Green | owing ated e Statu | 42071 42221 / (positive / r implementation nvironmental r s IEC | negative): nof this change. atings. | |
| Contin Antici None Impac Checke If belo | Mount (Mold C on for Char ouity of supp ipated imp ct on Envir ed boxes in w boxes are | Compound compound nge: oly act on For conmental dicate the se e checked, | m, Fit, Rating | 4207 4208 Function, Qual s f environmental re no changes to EACH | 768 625 ity or Reli ratings foll the associ | owing ated e Statu | 42071 42221 y (positive / r implementation nvironmental r | negative): nof this change. atings. | |

Changes to product identification resulting from this PCN:

Not applicable

Product Affected:

| Product Affected: | | | |
|-------------------|--------------------|--------------------|----------------|
| BQ24133RGYR | MSP430F2111TRGET | MSP430G2152IRSA16R | SN1901029RGWR |
| INA300AIDSQT | MSP430F2121IRGER | MSP430G2152IRSA16T | SN2003043DRBR |
| INA3221AIRGVR | MSP430F2121IRGET | MSP430G2201IRSA16R | SN2204031RSLR |
| INA3221AIRGVT | MSP430F2121TRGET | MSP430G2201IRSA16T | SN54620RGYR |
| LMZ30602RKGR | MSP430F2131IRGER | MSP430G2202IRSA16R | SN54622RHLR |
| LMZ30602RKGT | MSP430F2131TRGER | MSP430G2202IRSA16T | SN54678RTER |
| LMZ30604RKGR | MSP430F2131TRGET | MSP430G2211IRSA16R | SN8C050B0RGZR |
| LMZ30604RKGT | MSP430F2232IRHAR | MSP430G2211IRSA16T | TPS22968DPUR |
| LMZ31503RUQR | MSP430F2232IRHAT | MSP430G2212IRSA16R | TPS22976ADPUR |
| LMZ31503RUQR-P | MSP430F2232TRHAR | MSP430G2212IRSA16T | TPS2505B1RGWR |
| LMZ31503RUQT | MSP430F2232TRHAT | MSP430G2221IRSA16R | TPS51218DSCR |
| LMZ31506HRUQR | MSP430F2234IRHAT | MSP430G2221IRSA16T | TPS51980BRTVR |
| LMZ31506HRUQT | MSP430F2234TRHAT | MSP430G2231IRSA16R | TPS54427DRCR |
| LMZ31506RUQR | MSP430F2252IRHAR | MSP430G2231IRSA16T | TPS54427DRCT |
| LMZ31506RUQR-P | MSP430F2252IRHAT | MSP430G2232IRSA16R | TPS54428DRCR |
| LMZ31506RUQT | MSP430F2252TRHAR | MSP430G2232IRSA16T | TPS54428DRCT |
| MSP430F2001IRSAR | MSP430F2252TRHAT | MSP430G2252IRSA16R | TPS55330RTER |
| MSP430F2001IRSAT | MSP430F2254IRHAR | MSP430G2252IRSA16T | TPS62140ARGTR |
| MSP430F2001TRSAR | MSP430F2254TRHAR | MSP430G2302IRSA16R | TPS65281-1RGVR |
| MSP430F2001TRSAT | MSP430F2254TRHAT | MSP430G2302IRSA16T | TPS65281RGVR |
| MSP430F2002IRSAR | MSP430F2272IRHAR | MSP430G2312IRSA16R | TPS70918DRVR-S |
| MSP430F2002IRSAT | MSP430F2272IRHAT | MSP430G2312IRSA16T | TPS70930DRVR-S |
| MSP430F2002TRSAR | MSP430F2272TRHAR | MSP430G2332IRSA16R | TPS70933DRVR-S |
| MSP430F2002TRSAT | MSP430F2272TRHAT | MSP430G2332IRSA16T | TPS70950DRVR-S |
| MSP430F2003IRSAR | MSP430F2274IRHAR | MSP430G2352IRSA16R | TPS84210RKGR |
| MSP430F2003IRSAT | MSP430F2274IRHAT | MSP430G2352IRSA16T | TPS84210RKGT |
| MSP430F2003TRSAR | MSP430F2274TRHAR | MSP430G2402IRSA16R | TPS84320RUQR |
| MSP430F2003TRSAT | MSP430F2274TRHAT | MSP430G2402IRSA16T | TPS84320RUQT |
| MSP430F2011IRSAR | MSP430FR2533IRHBR | MSP430G2412IRSA16T | TPS84410RKGR |
| MSP430F2011IRSAT | MSP430FR2533IRHBT | MSP430G2432IRSA16R | TPS84410RKGT |
| MSP430F2011TRSAR | MSP430FR2633IRHBR | MSP430G2432IRSA16T | TPS84620RUQR |
| MSP430F2011TRSAT | MSP430FR2633IRHBT | MSP430G2444IRHA40R | TPS84620RUQT |
| MSP430F2012IRSAR | MSP430G2001IRSA16R | MSP430G2452IRSA16R | TPS84621RUQR |
| MSP430F2012IRSAT | MSP430G2001IRSA16T | MSP430G2452IRSA16T | TPS84621RUQT |
| MSP430F2012TRSAR | MSP430G2101IRSA16R | MSP430G2544IRHA40R | TS3A225ERTER |
| MSP430F2012TRSAT | MSP430G2101IRSA16T | MSP430G2544IRHA40T | TUSB8040A1RKMR |
| MSP430F2013IRSAR | MSP430G2102IRSA16T | MSP430G2744IRHA40R | UCD3020ARGZR |
| MSP430F2013IRSAT | MSP430G2111IRSA16R | MSP430G2744IRHA40T | UCD3020ARGZT |
| MSP430F2013TRSAR | MSP430G2111IRSA16T | MSP430V203IRGER | UCD3020RGZT |
| MSP430F2013TRSAT | MSP430G2112IRSA16T | MSP430V229IRSAR | UCD3028RHAR |

| MSP430F2101IRGER | MSP430G2121IRSA16R | MSP430V277IRSAR | UCD3028RHAT | |
|------------------|--------------------|-------------------|----------------|--|
| MSP430F2101IRGET | MSP430G2121IRSA16T | MSP430V325IRHAR | UCD3040RGCT | |
| MSP430F2101TRGER | MSP430G2131IRSA16R | MSP430V372IRHA40R | UCD3138RHAR | |
| MSP430F2111IRGER | MSP430G2131IRSA16T | MSP430V388IRSA16R | UCD3138RHAT | |
| MSP430F2111IRGET | MSP430G2132IRSA16R | MSP430V593IRHAR | WPMDB1200362QT | |
| MSP430F2111TRGER | MSP430G2132IRSA16T | SN10224RUKR | WPMDB1400362QT | |

TEXAS INSTRUMENTS

> Qualification Results ta Displayed as: Number of lots / Total sample size / Total failed

| Туре | Test Name / Condition | Duration | Qual Device: 27541DR2R-V200 | Qual Device: 430FR5969IRGZR | Qual Device: AD\$1220IRVAR | Qual Device: AD\$8548 \$RGCR | Qual Device: CC2541F256RHAR | Qual Device: DRV10866D3CR | Qual Device: <u>RGC-DC</u> | Qual Device: <u>\$320F28030R \$HT</u> | Qual Device: TP \$63000DRCR | Qual Device: <u>TP \$65631WD SKR</u> | QBS Package Reference: <u>TP\$7A4701QRGWRQ1</u> | QB\$ Package Reference: <u>TR\$3122ERGER</u> |
|-------|---|-------------------------------|--------------------------------|--------------------------------|-------------------------------|---------------------------------|--------------------------------|------------------------------|-------------------------------|--|--------------------------------|---|---|--|
| AC | Autoclave 121C | 96 Hours | 3/231/0 | 3/231/0 | 3/231/0 | 3/231/0 | | 3/231/0 | | 3/231/0 | 3/231/0 | 3/231/0 | 3/231/0 | 3/231/0 |
| BLR | Board Level Reliability, Temp Cycle, -40/125C | 1000 Cycles | | | | | | | 1/32/0 | | | | 1/32/0 | |
| ED | Electrical Distributions | Cpk>1.67 Room, Hot, & Cold | | | | | | | | | | - | 3/90/0 | |
| ED | Electrical Characterization | Per Datasheet Parameters | | | | | | | | | | | - | 1/30/0 |
| FLAM | Flammability (IEC 695-2-2) | - | | | | | | | - | | | | - | 3/15/0 |
| FLAM | Flammability (UL 94V-0) | | | | | | | | | | | | - | 3/15/0 |
| FLAM | Flammability (UL-1694) | - | | | | | | | | | | | - | 3/15/0 |
| HAST | Biased HAST, 130C/85%RH | 96 Hours | | 3/231/0 | | | | | | | | | 3/231/0 | 3/231/0 |
| HBM | ESD - HBM | 1000 V | | | | | | | | | | | 1/3/0 | |
| CDM | ESD - CDM | 250 V | | 3/9/0 | | | | | - | | | | 1/3/0 | |
| HTOL | Life Test, 125C | 1000 Hours | | | | | | | | | | | 3/231/0 | |
| HTOL | Life Test, 150C | 300 Hours | | | | | | | - | | | | - | 1/77/0 |
| HTSL | High Temp. Storage Bake, 150C | 1000 Hours | | 3/229/0 | | | 3/231/0 | | | 3/230/0 | | - | 1/45/0 | 3/231/0 |
| HTSL | High Temp. Storage Bake, 170C | 420 Hours | | | 3/231/0 | | | | - | | | 3/230/0 | - | |
| LU | Latch-up | (per JESD78) | | | | | | | | | | | 1/12/0 | 1/6/0 |
| PD | Physical Dimensions | - | 3/15/0 | 3/15/0 | 3/15/0 | 3/15/0 | 3/15/0 | 3/15/0 | - | 3/15/0 | 3/15/0 | 3/15/0 | 3/30/0 | 3/30/0 |
| PTC | Power Temperature Cycle, -40/125C | 1000 Cycles | | | | | | | | | | | 1/50/0 | |
| SD | Surface Mount Solderability | 8 Hours Steam Age, Pb-Free | | | | | | | | 3/66/0 | 3/66/0 | - | 1/15/0 | 1/22/0 |
| SD | Surface Mount Solderability | Pb | | | | | | | - | | | | 1/15/0 | |
| TC | Temperature Cycle, -55/125C | 700 Cycles | | | | | 3/230/0 | | | | | | - | |
| TC | Temperature Cycle, -65/150C | 500 Cycles | 3/231/0 | 3/231/0 | 3/231/0 | 3/231/0 | | 3/231/0 | - | 3/231/0 | 3/231/0 | 3/225/0 | 3/231/0 | 3/231/0 |
| THB | Biased Temperature and Humidity, 85C/85%RH | 1000 Hours | | | | | | | | 3/219/0 | | | | |
| UHAST | Unbiased HAST, 110C/85%RH | 264 Hours | | | | | 3/231/0 | | | | | | - | |
| UHAST | Unbiased HAST, 130C/85%RH | 96 Hours | | | | | | 3/231/0 | - | | | | | · · |
| VM | Visual / Mechanical | (per mfg. Site specification) | 3/984/0 | 3/984/0 | 3/984/0 | 3/984/0 | 3/984/0 | 3/984/0 | | 3/984/0 | 3/984/0 | 3/984/0 | - | 3/984/0 |
| WBP | Bond Pull | Wires | 3/228/0 | 3/228/0 | | | | 3/228/0 | - | 3/228/0 | 3/228/0 | 3/228/0 | 3/90/0 | 3/228/0 |
| WBS | Ball Bond Shear | Wires | 3/228/0 | 3/228/0 | | | | 3/228/0 | | 3/228/0 | 3/228/0 | 3/228/0 | 3/90/0 | 3/228/0 |

The biologing are equivalent (TRL options based on a solitution energy of 2 Mrl 125C/18 More, 1402480 More, 140230 Moure, and 155C/240 Ho
The biologing are equivalent (TRL options based on an solitution energy of 2 Mrl 126C/18 More, and 155C/240 Hour
The biologing are equivalent (TRL options per 455D/r 3602126/700 Cyrles and 45071005/050 Cycles
Orading and environmental data is available at TR sectores 4006 the http://www.com/

Qualified Pb-Free(SMT) and Green TI Qualification ID: 20160420-117558

For questions regarding this notice, e-mails can be sent to Change Management team or your local Field Sales Representative.

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