



本社：〒160-8366

東京都新宿区西新宿 6 丁目 24 番 1 号

西新宿三井ビルディング

報告書番号：PCN#20090723000

2009 年 9 月 17 日

お客様各位

日本テキサス・インスツルメンツ株式会社

営業・技術本部 カスタムドキュメント

マネージャ 牧 達郎 (牧)

HPA/PWR 一部製品 Cu(銅)線ボンディングワイア変更のご案内

拝啓 貴社益々ご清栄の事とお喜び申し上げます。平素は弊社製品のご愛顧を賜り、厚く御礼申し上げます。さて、標題の件につきまして下記にご連絡させていただきます。ご査収の程、宜しくお願い申し上げます。

敬具

## － 記 －

|        |                                                                                   |                                                                                                             |
|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| 通知タイプ  | <input type="checkbox"/> Initial notice (Plan)                                    | <input checked="" type="checkbox"/> Final notice                                                            |
| 変更概要   | Design/Specification                                                              | <input type="checkbox"/> Design <input type="checkbox"/> Electrical <input type="checkbox"/> Mechanical     |
|        | Wafer Fab                                                                         | <input type="checkbox"/> Site <input type="checkbox"/> Process <input type="checkbox"/> Material            |
|        | Wafer Bump                                                                        | <input type="checkbox"/> Site <input type="checkbox"/> Process <input type="checkbox"/> Material            |
|        | <input checked="" type="checkbox"/> Assembly                                      | <input type="checkbox"/> Site <input type="checkbox"/> Process <input checked="" type="checkbox"/> Material |
|        | Test                                                                              | <input type="checkbox"/> Site <input type="checkbox"/> Process                                              |
|        | Others                                                                            | <input type="checkbox"/> Packing/Shipping/Labeling <input type="checkbox"/> -                               |
| 変更内容   | HPA/PWR 一部製品 Cu(銅)線ボンディングワイア変更<br>現行 : Au(金)線 ボンディングワイア<br>変更後 : Cu(銅)線 ボンディングワイア |                                                                                                             |
| 対象製品   | 対象製品リスト参照                                                                         |                                                                                                             |
| 変更時期   | 12 月下旬の出荷より予定しています。                                                               |                                                                                                             |
| 品質認定試験 | <input type="checkbox"/> 計画                                                       | <input checked="" type="checkbox"/> 終了                                                                      |
| 製品表示   | <input checked="" type="checkbox"/> 変更無し                                          | <input type="checkbox"/> 変更あり                                                                               |
| 備考     | —                                                                                 |                                                                                                             |

尚、変更時期につきましては、在庫状況により異なりますので、担当営業にお問い合わせ下さい。また、ご不明な点、ご質問等がございましたら、担当営業或いは[pcn\\_tij@list.ti.com](mailto:pcn_tij@list.ti.com)にお問い合わせ下さい。

以上

## 変更内容

内容：弊社 HPA(ハイパフォーマンシアナログ)及びPWR(パワーマネジメント) 一部製品について、ボンディングワイアの機械/電気的特性の向上及び同種製品の組立技術推移に対応する為に、現行 Au(金)線 ボンディングワイアに替わり、Cu(銅)線 ボンディングワイアへの移行を認定しました。現行の製造サイト及びボンディングワイア部材以外の変更はございません。尚、今回の変更で、製品についての互換性(寸法/公差), 外観, 動作特性, 品質, 信頼性への影響はありません。

| 変更内容      | 現行     | 変更後    |
|-----------|--------|--------|
| ボンディングワイア | Au(金)線 | Cu(銅)線 |

理由：機械/電気的特性の向上及び同種製品の組立技術推移に対応する為

## 対象製品リスト

| 対象製品名            |                 |                   |                   |                |
|------------------|-----------------|-------------------|-------------------|----------------|
| HPA00045DRCR     | TLC5928PWPR     | TPS40074RHRLRG4   | TPS51124RGET      | TPS61050DRCT   |
| HPA00096DRCR     | TLC5928PWPRG4   | TPS40075RHRLR     | TPS51124RGETG4    | TPS61050DRCTG4 |
| HPA00096DRCRG4   | TLC5928RGER     | TPS40075RHRLRG4   | TPS51125RGER      | TPS61052DRCR   |
| HPA00183DRPR     | TLC59461PWPR    | TPS40075RHILT     | TPS51125RGERG4    | TPS61052DRCRG4 |
| HPA00349DRCR     | TLC5946PWPR     | TPS40075RHILT G4  | TPS51125RGET      | TPS61054DRCR   |
| HPA00350DRCR     | TLC5946PWPRG4   | TPS40190DRCR      | TPS51125RGETG4    | TPS61054DRCRG4 |
| HPA00351DRCR     | TLC5946RHBR     | TPS40190DRCRG4    | TPS51200DRCR      | TPS61055DRCR   |
| HPA00418PWPR     | TLC5946RHBRG4   | TPS40190DRCT      | TPS51200DRCR/2801 | TPS61055DRCRG4 |
| HPA00458RHBR     | TPA2013D1RGPR   | TPS40190DRCTG4    | TPS51200DRCRG4    | TPS61058DRCR   |
| HPA00479PWPR     | TPA2013D1RGPRG4 | TPS40192DRCR      | TPS51200DRCT      | TPS61058DRCRG4 |
| HPA00486PWPR     | TPA2014D1RGPR   | TPS40192DRCRG4    | TPS51200DRCTG4    | TPS61100RGER   |
| HPA00497RGPR     | TPA2014D1RGPRG4 | TPS40192DRCT      | TPS51610RHBR      | TPS61100RGERG4 |
| HPA00512DRCR     | TPA2014D1RGPT   | TPS40192DRCTG4    | TPS51610RHBRG4    | TPS61120RSAR   |
| HPA00593RHBR     | TPA2014D1RGPTG4 | TPS40193DRCR      | TPS51620RHAR      | TPS61120RSARG4 |
| HPA00639PWPR     | TPA6011A4PWP    | TPS40193DRCRG4    | TPS51620RHARG4    | TPS61130RSAR   |
| HPA00639RHBR     | TPA6011A4PWPG4  | TPS40193DRCT      | TPS51727RHAR      | TPS61130RSARG4 |
| HPA00756D1RGPR   | TPA6011A4PWPR   | TPS40193DRCTG4    | TPS51727RHARG4    | TPS62021DRCR   |
| HPA00775PWPR     | TPA6011A4PWPRG4 | TPS40195RGYR      | TPS61020DRCR      | TPS62021DRCRG4 |
| SN0512022DRBR    | TPA6019A4PWP    | TPS40195RGYRG4    | TPS61020DRCRG4    | TPS62355DRCR   |
| SN0512022DRBRG4  | TPA6019A4PWPG4  | TPS40195RGYT      | TPS61025DRCR      | TPS62355DRCRG4 |
| SN0601103RHRLR   | TPA6019A4PWPR   | TPS40195RGYT G4   | TPS61025DRCRG4    | TPS63700DRCR   |
| SN0601103RHRLRG4 | TPA6019A4PWPRG4 | TPS40197RGYR      | TPS61026DRCR      | TPS63700DRCRG4 |
| SN0604023DRCR    | TPA6132A2RTER   | TPS40222DRPR      | TPS61026DRCRG4    | TPS63700DRCT   |
| SN0604023DRCRG4  | TPA6204A1DRB    | TPS40222DRPRG4    | TPS61027DRCR      | TPS63700DRCTG4 |
| SN0611035DRPR    | TPA6204A1DRBG4  | TPS40222DRPT      | TPS61027DRCRG4    | TPS65100RGER   |
| SN0611035DRPRG4  | TPA6211A1DRB    | TPS40222DRPTG4    | TPS61027DRCRSY    | TPS65100RGERG4 |
| SN0803054DRCR    | TPA6211A1DRBG4  | TPS51117RGYR      | TPS61028DRCR      | TPS65140RGER   |
| SN0803054DRCRG4  | TPA6211A1DRBR   | TPS51117RGYRG4    | TPS61028DRCRG4    | TPS65140RGERG4 |
| SN0805013DRCR    | TPA6211A1DRBRG4 | TPS51120RHBT      | TPS61029DRCR      | TPS65145RGER   |
| SN0805013DRCRG4  | TPS40040DRBR    | TPS51120RHBTG4    | TPS61029DRCRG4    | TPS65145RGERG4 |
| SN0805016DRBR    | TPS40040DRBRG4  | TPS51123RGER      | TPS61029DRCT      | TPS65150RGER   |
| SN0805016DRBRG4  | TPS40041DRBT    | TPS51124RGER      | TPS61029DRCTG4    | TPS65150RGERG4 |
| TLC5928PWP       | TPS40041DRBTG4  | TPS51124RGER/2354 | TPS61050DRCR      |                |
| TLC5928PWPG4     | TPS40074RHRLR   | TPS51124RGERG4    | TPS61050DRCRG4    |                |

## 信頼性試験

## 信頼性試験結果

## 信頼性試験 - 試料構成詳細

|                         |                    |                           |              |
|-------------------------|--------------------|---------------------------|--------------|
| Qual Device:            | TPA6132A2RTE       | Die Size (mm):            | 1.09 x 1.09  |
| Die Protective Coating: | 10KACN             | -                         | -            |
| Assembly Site:          | MLA                | Package/Code/Pins:        | QFN/RTE/16   |
| Mount Compound:         | 4205846-0001       | Mold Compound:            | 4208625-0004 |
| Bond Wire:              | 0.96 Mil Dia. Cu   | Leadframe (Finish, Base): | NiPdAu, Cu   |
| MSL:                    | JEDEC, LEVEL2-260C | -                         | -            |

## 信頼性試験結果

| Reliability Test             | Condition / Duration   | Sample Size/ Fails |          |          |
|------------------------------|------------------------|--------------------|----------|----------|
|                              |                        | Lot#1              | Lot#2    | Lot#3    |
| **Temp Cycle                 | -65/150C, 500cycles    | 77/0               | 77/0     | 77/0     |
| High Temp Storage Bake       | 170C, 420 Hrs.         | 77/0               | 77/0     | 77/0     |
| **Autoclave                  | 121C, 96 Hrs.          | 77/0               | 77/0     | 77/0     |
| **Thermal Shock              | -65/150C, 1000Cycles   | 77/0               | 77/0     | 77/0     |
| Manufacturability (Assembly) | per assembly site spec | Approved           | Approved | Approved |

Note: \*\* Test requires Moisture Preconditioning, JEDEC Level-2/260C

## 信頼性試験結果

## 信頼性試験 - 試料構成詳細

|                         |                    |                           |              |
|-------------------------|--------------------|---------------------------|--------------|
| Qual Device:            | TPS51117RGY        | Die Size (mm):            | 1.48 x 1.45  |
| Die Protective Coating: | 10KACN             | -                         | -            |
| Assembly Site:          | MLA                | Package/Code/Pins:        | QFN/RGY/16   |
| Mount Compound:         | 4205846-0001       | Mold Compound:            | 4208625-0004 |
| Bond Wire:              | 0.96 Mil Dia. Cu   | Leadframe (Finish, Base): | NiPdAu, Cu   |
| MSL:                    | JEDEC, LEVEL2-260C | -                         | -            |

## 信頼性試験結果

| Reliability Test             | Condition / Duration   | Sample Size/ Fails |          |          |
|------------------------------|------------------------|--------------------|----------|----------|
|                              |                        | Lot#1              | Lot#2    | Lot#3    |
| **Temp Cycle                 | -65/150C, 500 cycles   | 77/0               | 77/0     | 77/0     |
| High Temp Storage Bake       | 170C, 420Hrs.          | 77/0               | 77/0     | 77/0     |
| **Autoclave                  | 121C, 96Hrs.           | 77/0               | 77/0     | 77/0     |
| **Thermal Shock              | -65/150C, 1000 Cycles  | 77/0               | 77/0     | 77/0     |
| Manufacturability (Assembly) | per assembly site spec | Approved           | Approved | Approved |

Note: \*\* Test requires Moisture Preconditioning, JEDEC Level-2/260C

## 信頼性試験結果

## 信頼性試験 - 試料構成詳細

|                         |                    |                           |              |
|-------------------------|--------------------|---------------------------|--------------|
| Qual Device:            | TPS51125RGE        | Die Size (mm):            | 2.03 x 2.25  |
| Die Protective Coating: | 10KACN             | -                         | -            |
| Assembly Site:          | MLA                | Package/Code/Pins:        | VQFN/RGE/24  |
| Mount Compound:         | 4205846-0001       | Mold Compound:            | 4208625-0004 |
| Bond Wire:              | 0.96 Mil Dia. Cu   | Leadframe (Finish, Base): | NiPdAu, Cu   |
| MSL:                    | JEDEC, LEVEL2-260C | -                         | -            |

## 信頼性試験結果

| Reliability Test             | Condition / Duration   | Sample Size/ Fails |          |          |
|------------------------------|------------------------|--------------------|----------|----------|
|                              |                        | Lot#1              | Lot#2    | Lot#3    |
| **Temp Cycle                 | -65/150C, 500 cycles   | 77/0               | 77/0     | 77/0     |
| High Temp Storage Bake       | 170C, 420Hrs.          | 77/0               | 77/0     | 77/0     |
| **Autoclave                  | 121C, 96Hrs.           | 77/0               | 77/0     | 77/0     |
| **Thermal Shock              | -65/150C, 1000 Cycles  | 77/0               | 77/0     | 77/0     |
| Manufacturability (Assembly) | per assembly site spec | Approved           | Approved | Approved |

Note: \*\* Test requires Moisture Preconditioning, JEDEC Level-2/260C

| 信頼性試験結果<br>信頼性試験 - 試料構成詳細                                           |                        |                           |              |          |
|---------------------------------------------------------------------|------------------------|---------------------------|--------------|----------|
| Qual Device:                                                        | TPS51200DRC            | Die Size (mm):            | 1.35 x 0.78  |          |
| Die Protective Coating:                                             | 10KACN                 | -                         | -            |          |
| Assembly Site:                                                      | MLA                    | Package/Code/Pins:        | VSON/ DRC/10 |          |
| Mount Compound:                                                     | 4205846-0001           | Mold Compound:            | 4208625-0004 |          |
| Bond Wire:                                                          | 0.96 Mil Dia. Cu       | Leadframe (Finish, Base): | NiPdAu, Cu   |          |
| MSL:                                                                | JEDEC,LEVEL3-260C      | -                         | -            |          |
| 信頼性試験結果                                                             |                        |                           |              |          |
| Reliability Test                                                    | Condition / Duration   | Sample Size/ Fails        |              |          |
|                                                                     |                        | Lot#1                     | Lot#2        | Lot#3    |
| **Temp Cycle                                                        | -65/150C, 500cycles    | 77/0                      | 77/0         | 77/0     |
| High Temp Storage Bake                                              | 170C,420Hrs.           | 77/0                      | 77/0         | 77/0     |
| **Autoclave                                                         | 121C,96Hrs.            | 77/0                      | 77/0         | 77/0     |
| **Thermal Shock                                                     | -65/150C,1000Cycles    | 77/0                      | 77/0         | 77/0     |
| Manufacturability (Assembly)                                        | per assembly site spec | Approved                  | Approved     | Approved |
| Note: ** Test requires Moisture Preconditioning, JEDEC Level-3/260C |                        |                           |              |          |

| 信賴性試驗結果                                                             |                        |                           |              |          |
|---------------------------------------------------------------------|------------------------|---------------------------|--------------|----------|
| 信賴性試驗 - 試料構成詳細                                                      |                        |                           |              |          |
| Qual Device:                                                        | SN0508073PW            | Die Size (mm):            | 1.48 x 1.45  |          |
| Die Protective Coating:                                             | 10KACN                 | -                         | -            |          |
| Assembly Site:                                                      | MLA                    | Package/Code/Pins:        | TSSOP/PW/28  |          |
| Mount Compound:                                                     | 4042500-0011           | Mold Compound:            | 4206193-0003 |          |
| Bond Wire:                                                          | 0.96 Mil Dia. Cu       | Leadframe (Finish, Base): | NiPdAu, Cu   |          |
| MSL:                                                                | JEDEC,LEVEL1-260C      | -                         | -            |          |
| 信賴性試驗結果                                                             |                        |                           |              |          |
| Reliability Test                                                    | Condition / Duration   | Sample Size/ Fails        |              |          |
|                                                                     |                        | Lot#1                     | Lot#2        | Lot#3    |
| **Temp Cycle                                                        | -65/150C, 500cycles    | 77/0                      | 77/0         | 77/0     |
| High Temp Storage Bake                                              | 170C,420Hrs.           | 77/0                      | 77/0         | 77/0     |
| Manufacturability (Assembly)                                        | per assembly site spec | Approved                  | Approved     | Approved |
| Note: ** Test requires Moisture Preconditioning, JEDEC Level-1/260C |                        |                           |              |          |

| 信頼性試験結果<br>信頼性試験 - 試料構成詳細                                           |                        |                           |              |          |
|---------------------------------------------------------------------|------------------------|---------------------------|--------------|----------|
| Qual Device:                                                        | TPA6011A4PWP           | Die Size (mm):            | 1.12 x 2.19  |          |
| Die Protective Coating:                                             | 8KAOX/9KACN            | -                         | -            |          |
| Assembly Site:                                                      | MLA                    | Package/Code/Pins:        | TSSOP/PWP/28 |          |
| Mount Compound:                                                     | 4042504-0007           | Mold Compound:            | 4205443-0002 |          |
| Bond Wire:                                                          | 0.96 Mil Dia. Cu       | Leadframe (Finish, Base): | NiPdAu, Cu   |          |
| MSL:                                                                | JEDEC,LEVEL2-260C      | -                         | -            |          |
| 信頼性試験結果                                                             |                        |                           |              |          |
| Reliability Test                                                    | Condition / Duration   | Sample Size/ Fails        |              |          |
|                                                                     |                        | Lot#1                     | Lot#2        | Lot#3    |
| **Temp Cycle                                                        | -65/150C, 500cycles    | 77/0                      | 77/0         | 77/0     |
| High Temp Storage Bake                                              | 170C,420Hrs.           | 77/0                      | 77/0         | 77/0     |
| Manufacturability (Assembly)                                        | per assembly site spec | Approved                  | Approved     | Approved |
| Note: ** Test requires Moisture Preconditioning, JEDEC Level-2/260C |                        |                           |              |          |

| 信頼性試験結果<br>信頼性試験 - 試料構成詳細                                           |                        |                           |              |          |
|---------------------------------------------------------------------|------------------------|---------------------------|--------------|----------|
| Qual Device:                                                        | TPS51117PW             | Die Size (mm):            | 1.48 x 1.45  |          |
| Die Protective Coating:                                             | 10KACN                 | -                         | -            |          |
| Assembly Site:                                                      | MLA                    | Package/Code/Pins:        | TSSOP/PW/14  |          |
| Mount Compound:                                                     | 4042500-0011           | Mold Compound:            | 4206193-0003 |          |
| Bond Wire:                                                          | 0.96 Mil Dia. Cu       | Leadframe (Finish, Base): | NiPdAu, Cu   |          |
| MSL:                                                                | JEDEC, LEVEL1-260C     | -                         | -            |          |
| 信頼性試験結果                                                             |                        |                           |              |          |
| Reliability Test                                                    | Condition / Duration   | Sample Size/ Fails        |              |          |
|                                                                     |                        | Lot#1                     | Lot#2        | Lot#3    |
| **Temp Cycle                                                        | -65/150C, 500cycles    | 77/0                      | 77/0         | 77/0     |
| High Temp Storage Bake                                              | 170C,420Hrs.           | 77/0                      | 77/0         | 77/0     |
| **Autoclave                                                         | 121C,96Hrs.            | 77/0                      | 77/0         | 77/0     |
| **Thermal Shock                                                     | -65/150C, 1000Cycles   | 77/0                      | 77/0         | 77/0     |
| Manufacturability (Assembly)                                        | per assembly site spec | Approved                  | Approved     | Approved |
| Note: ** Test requires Moisture Preconditioning, JEDEC Level-1/260C |                        |                           |              |          |

| 信頼性試験結果<br>信頼性試験 - 試料構成詳細                                           |                        |                           |               |          |
|---------------------------------------------------------------------|------------------------|---------------------------|---------------|----------|
| Qual Device:                                                        | TPA3007D1PW            | Die Size (mm):            | 2.082 x 4.184 |          |
| Die Protective Coating:                                             | 10KACN                 | -                         | -             |          |
| Assembly Site:                                                      | TAI / TITL             | Package/Code/Pins:        | TSSOP/ PW/24  |          |
| Mount Compound:                                                     | 4042500-0007           | Mold Compound:            | 4206193-0001  |          |
| Bond Wire:                                                          | 0.96 Mil Dia. Cu       | Leadframe (Finish, Base): | NiPdAu, Cu    |          |
| MSL:                                                                | JEDEC,LEVEL2-260C      | -                         | -             |          |
| 信頼性試験結果                                                             |                        |                           |               |          |
| Reliability Test                                                    | Condition / Duration   | Sample Size/ Fails        |               |          |
|                                                                     |                        | Lot#1                     | Lot#2         | Lot#3    |
| **Temp Cycle                                                        | -65/150C, 500cycles    | 77/0                      | 77/0          | 77/0     |
| High Temp Storage Bake                                              | 170C,420Hrs.           | 77/0                      | 77/0          | 77/0     |
| **Autoclave                                                         | 121C, 96Hrs.           | 77/0                      | 77/0          | 77/0     |
| **Thermal Shock                                                     | -65/150C,1000Cycles    | 77/0                      | 77/0          | 77/0     |
| Moisture Sensitivity                                                | JEDEC Level-2/260C     | 12/0                      | 12/0          | 12/0     |
| Manufacturability (Assembly)                                        | per assembly site spec | Approved                  | Approved      | Approved |
| Note: ** Test requires Moisture Preconditioning, JEDEC Level-2/260C |                        |                           |               |          |

| 信頼性試験結果<br>信頼性試験 - 試料構成詳細                                           |                        |                           |               |          |
|---------------------------------------------------------------------|------------------------|---------------------------|---------------|----------|
| Qual Device:                                                        | TPA6030A4PWP           | Die Size (mm):            | 1.914 x 3.762 |          |
| Die Protective Coating:                                             | 10KACN                 | -                         | -             |          |
| Assembly Site:                                                      | TAI / TITL             | Package/Code/Pins:        | HTSSOP/PWP/28 |          |
| Mount Compound:                                                     | 4206201-0001           | Mold Compound:            | 4205443-0009  |          |
| Bond Wire:                                                          | 0.96 Mil Dia. Cu       | Leadframe (Finish, Base): | NiPdAu, Cu    |          |
| MSL:                                                                | JEDEC,LEVEL4-260C      | -                         | -             |          |
| 信頼性試験結果                                                             |                        |                           |               |          |
| Reliability Test                                                    | Condition / Duration   | Sample Size/ Fails        |               |          |
|                                                                     |                        | Lot#1                     | Lot#2         | Lot#3    |
| **Temp Cycle                                                        | -65/150C, 500cycles    | 77/0                      | 77/0          | 77/0     |
| High Temp Storage Bake                                              | 170C,420Hrs.           | 77/0                      | 77/0          | 77/0     |
| **Autoclave                                                         | 121C,96Hrs.            | 77/0                      | 77/0          | 77/0     |
| **Thermal Shock                                                     | -65/150C, 1000Cycles   | 77/0                      | 77/0          | 77/0     |
| Moisture Sensitivity                                                | JEDEC Level-2/260C     | 12/0                      | 12/0          | 12/0     |
| Manufacturability (Assembly)                                        | per assembly site spec | Approved                  | Approved      | Approved |
| Note: ** Test requires Moisture Preconditioning, JEDEC Level-4/260C |                        |                           |               |          |

| 信頼性試験結果                                                              |                        |                          |              |       |
|----------------------------------------------------------------------|------------------------|--------------------------|--------------|-------|
| 信頼性試験 - 試料構成詳細                                                       |                        |                          |              |       |
| Qual Device:                                                         | TPA6203A1GQV           | Die Size (mm):           | 0.98 x 0.98  |       |
| Die Protective Coating:                                              | 12KACN                 | -                        | -            |       |
| Assembly Site:                                                       | TAI / TITL             | Package/Code/Pins:       | BGA/GQV/8    |       |
| Mount Compound:                                                      | 4111062-1005           | Mold Compound:           | 4200591-0002 |       |
| Bond Wire:                                                           | 0.96 Mil Dia. Cu       | Solder ball Composition: | SnPb         |       |
| MSL:                                                                 | JEDEC,LEVEL2A-235C     | -                        | -            |       |
| 信頼性試験結果                                                              |                        |                          |              |       |
| Reliability Test                                                     | Condition / Duration   | Sample Size/ Fails       |              |       |
|                                                                      |                        | Lot#1                    | Lot#2        | Lot#3 |
| High Temp Storage Bake                                               | 150C, 1000Hrs.         | 77/0                     | -            | -     |
| **Unbiased HAST                                                      | 130C/85%RH,96Hrs       | 77/0                     | -            | -     |
| **Temp Cycle                                                         | -55/125C,1000cycles    | 77/0                     | -            | -     |
| Bond Strength                                                        | Min 3 Units            | 76/0                     | -            | -     |
| Moisture Sensitivity                                                 | JEDEC Level-2/235C     | 12/0                     | -            | -     |
| Manufacturability (Assembly)                                         | per assembly site spec | Approved                 | -            | -     |
| Note: ** Test requires Moisture Preconditioning, JEDEC Level-2A/235C |                        |                          |              |       |

| 信頼性試験結果<br>信頼性試験 - 試料構成詳細                                           |                         |                          |              |       |
|---------------------------------------------------------------------|-------------------------|--------------------------|--------------|-------|
| Qual Device:                                                        | TPA6205A1ZQV            | Die Size (mm):           | 0.98 x 0.98  |       |
| Die Protective Coating:                                             | 12KACN                  | -                        | -            |       |
| Assembly Site:                                                      | TAI / TITL              | Package/Code/Pins:       | BGA/ ZQV/8   |       |
| Mount Compound:                                                     | 4111062-1005            | Mold Compound:           | 4200591-0001 |       |
| Bond Wire:                                                          | 0.96 Mil Dia. Cu        | Solder ball Composition: | SnAgCu       |       |
| MSL:                                                                | JEDEC,LEVEL3-250C       | -                        | -            |       |
| 信頼性試験結果                                                             |                         |                          |              |       |
| Reliability Test                                                    | Condition / Duration    | Sample Size/ Fails       |              |       |
|                                                                     |                         | Lot#1                    | Lot#2        | Lot#3 |
| High Temp Storage Bake                                              | 150C, 1000 Hrs.         | 77/0                     | -            | -     |
| High Temp Operating Life                                            | 125C, 1000 Hrs, VCC Max | 77/0                     | -            | -     |
| **Unbiased HAST                                                     | 130C/85%RH,96 Hrs       | 77/0                     | -            | -     |
| **Temp Cycle                                                        | -55/125C, 1000cycles    | 77/0                     | -            | -     |
| Bond Strength                                                       | Min 3 Units             | 76/0                     | -            | -     |
| Moisture Sensitivity                                                | JEDEC Level-2/235C      | 12/0                     | -            | -     |
| Manufacturability (Assembly)                                        | per assembly site spec  | Approved                 | -            | -     |
| Note: ** Test requires Moisture Preconditioning, JEDEC Level-3/250C |                         |                          |              |       |

| 信頼性試験結果<br>信頼性試験 - 試料構成詳細                                           |                        |                          |              |       |
|---------------------------------------------------------------------|------------------------|--------------------------|--------------|-------|
| Qual Device:                                                        | TPS65850ZQZ            | Die Size (mm):           | 4.67 x 5.47  |       |
| Die Protective Coating:                                             | 8KAOXYN\10KACN         | -                        | -            |       |
| Assembly Site:                                                      | TAI / TITL             | Package/Code/Pins:       | BGA/ZQZ/120  |       |
| Mount Compound:                                                     | 4111062-1010           | Mold Compound:           | 4205867-0001 |       |
| Bond Wire:                                                          | 0.96 Mil Dia. Cu       | Solder ball Composition: | SnAgCu       |       |
| MSL:                                                                | JEDEC,LEVEL3-260C      | -                        | -            |       |
| 信頼性試験結果                                                             |                        |                          |              |       |
| Reliability Test                                                    | Condition / Duration   | Sample Size/ Fails       |              |       |
|                                                                     |                        | Lot#1                    | Lot#2        | Lot#3 |
| High Temp Storage Bake                                              | 150C,1000Hrs.          | 77/0                     | -            | -     |
| High Temp Operating Life                                            | 125C,1000Hrs, VCC Max  | 77/0                     | -            | -     |
| **Unbiased HAST                                                     | 130C/85%RH,96Hrs       | 77/0                     | -            | -     |
| **Temp Cycle                                                        | -55/125C, 1000cycles   | 77/0                     | -            | -     |
| Bond Strength                                                       | Min 3 Units            | 76/0                     | -            | -     |
| Moisture Sensitivity                                                | JEDEC Level-2/235C     | 12/0                     | -            | -     |
| Manufacturability (Assembly)                                        | per assembly site spec | Approved                 | -            | -     |
| Note: ** Test requires Moisture Preconditioning, JEDEC Level-3/260C |                        |                          |              |       |