Standardized Information for Process/Product Change Notification (PCN)

| | | 1. PCN b | pasic data | |
|-------------------------------------|----------------------|--|---|--|
| 1.1 Company | TAIWAN SEMICONDUCTOR | 1 | | |
| 1.2 PCN No. | | PCN17023 | | |
| 1.3 Title of P | CN | Change of 13" Reel attac | hment method for SMD series | |
| 1.4 Product (| Category | Active Components - Discrete | • | |
| 1.5 Issue dat | te | 2017/09/29 | | |
| 1.6 PCN revision history (optional) | | 1.7 Issue date of previous revision (optional) | 1.8 Delta to previous revision (optional) | |
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| | 2. PCN Team | | | |
|------------------------------|---------------------------|--------------------------|--|--|
| 2.1 Contact supplier | | | | |
| 2.1.1 Name | Sunnie Lin | | | |
| 2.1.2 Phone | +886-2-8913-1588 Ext:2205 | | | |
| 2.1.3 Email | Sunnie@mail.ts.com.tw | | | |
| 2.2 Team supplier (optional) | | | | |
| 2.2.1 Name (optional) | 2.2.2 Phone (optional) | 2.2.3 Email (optional) | | |
| Henry Chi | 886-2-8913-1588 Ext.2130 | Henry_Chi@mail.ts.com.tw | | |
| Dino Ho | 886-2-8913-1588 Ext.2123 | Dino@mail.ts.com.tw | | |
| Joanne Liu | 886-2-8913-1588 Ext.2115 | Joanne@mail.ts.com.tw | | |
| | | | | |

| | 3. Changes | | | | | |
|-----|------------|------------------|--------------------------------|--|--|--|
| No. | 3.0 Ident | 3.1 Category | 3.2 Type of change | | | |
| #1 | SEM-PS-03 | PACKING/SHIPPING | Change of carrier (tray, reel) | | | |
| #2 | | | | | | |
| #3 | | | | | | |
| #4 | | | | | | |
| #5 | | | | | | |

| | 4. Description of change | |
|---|---|--|
| | Old | New |
| Change #1 | 13" reel attachment through card buckle linkage method. | 13" reel attachment through ultrasonic welding method. |
| | Affected package: Sub SMA / SMA / SMB / SMC / MBS | Affected package: Sub SMA / SMA / SMB / SMC / MBS. |
| Change #2 | | |
| Change #3 | | |
| Change #4 | | |
| Change #5 | | |
| 4.6 Anticipated impact on form, fit, function, reliability or processability? | No impact the form, fit, function, reliability or process | ssability |
| 4.7 Reference parts with customer number (optional) | | |

| | 5. Reason / motivation for change |
|---------------------------------------|--|
| 5.1 Motivation | To improve the 13" reel design to avoid cracking by changing the attachment method from card buckle linkage to ultrasonic welding. |
| 5.2 Additional explanation (optional) | |

| 6. Marking of parts / traceability of change | |
|--|---------------------------|
| 6.1 Description | Use date code to control. |

| 7. Timing / schedule | | | | |
|--------------------------------------|-------------------------|------------------------------------|--|--|
| 7.1 Date of qualification results | | Not applicable | | |
| 7.2 Last order date (optional) | 2017/12/29 | | | |
| 7.3 Last delivery date (optional) | 2018/12/29 | | | |
| 7.4 Intended start of delivery | 2017/12/29 | | | |
| 7.5 Qualification samples available? | When get customer order | and after 2 weeks can be submitted | | |
| | | | | |
| 7.6 Customer feedback required until | 2017/10/29 | | | |

| 8. Qualification / validation | | | | |
|---|-----------------------|--|--|--|
| 8.1 Description (e.g. qual. plan/report, AEC-Q) | According to AEC-Q101 | | | |
| 8.2 Qualification report and qualification results | not applicable | | | |

9. Input to customer for risk assessment process

Human Resource : Low Risk
Equipment : Low Risk
Technique-Wafer : Low Risk
Technique-Assembly : Low Risk
Sample submit time : within 30 days
Form/ Fit / Function : Low Risk
Reliability : Low Risk

10. Attachments (e.g. new datasheet, additional documentation, pictures, process flow, sample plan, ...)

Refer to official announcement mail for the details.

| | | | | 11. Affect | ed parts | | | | |
|--------------------------------|---------------------------------|--|---------------------------|---|---|---------------------------------|--|---------------------------|---|
| | 11.1 Current | | | | 11.2 New (if applicable) | | | | |
| 11.1.1 Customer Part No. | 11.1.2 Supplier Part Name | 11.1.3 Supplier Part No. (optional) | 11.1.4 Package Name | 11.1.5 Part Description (optional) | 11.1.6 Additional Part Information | 11.2.2 Supplier Part Name | 11.2.3 Supplier Part No. (optional) | 11.2.4 Package Name | 11.2.6 Additional Part Information |
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Customer Feedback/Approval Form

| | Tit | tle of PCN: | | | | |
|--------|--|------------------|------------------|--------------------------|--|--|
| | Change of 13 reel atta | achment metho | d for SMD seri | es PCN17023 | | |
| Custo | Customer PCN No. PCN17023 | | | | | |
| Please | e check the appropriate box below: | | | | | |
| | 1. Feedback | date: | | | | |
| | We agree with this proposed change for Approval letter will be sent in written for | r the parts as I | isted in chapt | er '11. Affected parts'. | | |
| | We agree with this proposed change so letter will be sent in written form after e | | ll start with th | e PCN process. Approval | | |
| | We disapprove because: | | | | | |
| | Remark: | | | | | |
| | 2. Feedback | date: | | | | |
| | We acknowledge qualification / validation | on as assigned | l in chapter 8 | of the PCN. | | |
| | We need more information: | | | | | |
| | We need the following samples: | | | | | |
| | | | | | | |
| | Estimated closing date for PCN: | | | | | |
| | Final Feedback/Approval | date: | | | | |
| | | Sender: | | | | |
| Comp | anv: | Jenuel. | | | | |

| Name: | |
|-------------------|--|
| Address/Location: | |
| Signature: | |
| Date: | |
| | |
| | Please return to: [your Sales partner] |
| Name: | |
| Address/Location: | |
| Phone: | |
| Fax: | |
| Email: | |