



Product Change Notification

CN-202302017F

Issue date: 19 Dec 2023

Effective date: 15 Apr 2024

Here's your personalized quality information concerning products our customers and partners purchased from Nexperia.

For more details please contact your respective Nexperia CSR/AM.



Release of Cu-wire for ESD protection devices in SOD323 (BSOB)

Change Category

| | | | | | | | |
|-------------------------------------|----------|-------------------------------------|---------|--------------------------|--------------------------|--------------------------|-------------|
| <input checked="" type="checkbox"/> | Wafer | <input checked="" type="checkbox"/> | Assembl | | | | |
| | Fab | | | | | | |
| | Process | y | | | | | |
| <input checked="" type="checkbox"/> | Wafer | <input checked="" type="checkbox"/> | Assembl | <input type="checkbox"/> | Product Marking | <input type="checkbox"/> | Test Design |
| | Fab | | | <input type="checkbox"/> | Mechanical | <input type="checkbox"/> | Location |
| | Material | y | | <input type="checkbox"/> | Specification | <input type="checkbox"/> | Test |
| <input type="checkbox"/> | Wafer | <input type="checkbox"/> | Assembl | <input type="checkbox"/> | Packing/Shipping/Labelin | <input type="checkbox"/> | Test |
| | Fab | | | | g | <input type="checkbox"/> | Equipmen |
| | Location | | | | | <input type="checkbox"/> | t coverage |

Details of this change

- The bond wire material will be changed from gold (Au) to copper (Cu).
- use of 200mm wafer materials. These wafer materials have been announced in CN-202001003F01
- related to use of these 200mm wafer materials, some other changes are introduced for affected products (die thickness, different back metal stack, change of die size and active area size)
- Introduction of EMCs (epoxy mold compounds) GR646CHN and EME-E500HK.

Current products:

- Au-wire
- 6 inch wafer diameter
- die thickness: 200um
- full field lithography
- die size: 380x380µm
- active area: 220x220µm, 280x280µm
- back side metallization: NATAg2
- EMC: CV4112, GR646, 3400FPG and EME-E500HK (for PESD5V0L1BA only)

Changed products:

- 8 inch wafer diameter
- die thickness: 145um
- stepper lithography
- die size: 320x320µm or 340x340µm (for affected products)
- active area: 228x228µm, 280x280µm
- back side metallization: NATAg
- Cu-wire
- EMC: GR646CHN and EME-E500HK

CN-202302017F_FORM-Rev_5_0_2.xlsm:

https://qcm.nexperia.com/Document/DOC-566060/CN-202302017F_FORM-Rev_5_0_2.xlsm

CN-202302017F_SelfQualificationReport.pdf:

https://qcm.nexperia.com/Document/DOC-565541/CN-202302017F_SelfQualificationReport.pdf

CN-202302017F_BG563_PCN-Delta-Qualification-Matrix-ZVEI-5_0_14.xlsm:

https://qcm.nexperia.com/Document/DOC-563655/CN-202302017F_BG563_PCN-Delta-Qualification-Matrix-ZVEI-5_0_14.xlsm

Why do we implement this change?

- Improved supply situation by capacity expansion in the wafer fab.
- Continue to introduce copper wire for SMD packages to enhance mechanical properties and maintain latest wire bonding technology.
- improved volume ramp-up

Identification of affected products

Changed products can be identified by date code after implementation.
The 200mm products can be identified by a marker on the die surface.

Product availability

Production

Planned first shipment: 29 Mar 2024

Existing inventory will be shipped until depleted

Sample information

Samples are available upon request

Impact

No impact to the product's functionality anticipated

Data sheet revision

No impact to existing datasheet

Feedback

Your acknowledgement of this change, conform JEDEC J-STD-046, is expected till 01 Feb 2024. Lack of acknowledgement of the PCN constitutes acceptance of the change.

Additional information

[View Change Notification Online](#)

Contact and support

For all Quality Notification content inquiries, please contact your local Nexperia Sales Support Team.

For specific questions on this notice or the products affected please contact our specialist directly: pcn@nexperia.com

In case of distribution, please contact you distribution partner.

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