Cypress Semiconductor Corporation – An Infineon Technologies Company
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PRODUCT CHANGE NOTIFICATION

PCN: PCN210503 **Date:** March 22, 2021

Subject: Qualification of Copper Palladium Gold Wire (CuPdAu) and Shinetsu KMC3580LVA Mold Compound for FBGA Packages Assembled at Cypress Bangkok

To: TOKYO ELECTRON DEVICE
TELDEVICE
cy-inside@teldevice.co.jp

Change Type: Major

Description of Change:
Cypress announces the qualification of Copper Palladium Gold (CuPdAu) wire and Shinetsu KMC3580LVA mold compound for FBGA packages assembled at Cypress Bangkok.

This new bond wire type is consistent with industry standards per AEC-Q006 requirements. This mold compound is consistent with Cypress' drive to Green and Pb-free RoHS compliant packages. In addition, this Green and Pb-free (Shinetsu KMC3580LVA) mold compound is compatible with industry standard reflow temperatures for applicable package volume, thickness and lead finish.

The FBGA packages are assembled at Cypress Bangkok using the following Bill of Materials:

Material	**Cypress Bangkok BOM (New)**	**Cypress Bangkok BOM (Current)**
Mold Compound	Shinetsu KMC3580LVA	Hitachi CEL9200ZHF10FAU 6.0G
Substrate	Cu/Ni/Au	Cu/Ni/Au
Solder Ball	Sn96.5%Ag3%Cu0.5% (SAC305)	Sn96.5%Ag3%Cu0.5% (SAC305)
Die Attach Material	Henkel QMI546/ Hitachi EN4310	Henkel QMI546/Hitachi EN4310
Bond Wire	0.8mil CuPdAu wire	0.8 mil/0.9 mil/1.0 mil Au wire

Benefit of Change:
The conversion to CuPdAu wire bond will keep Cypress in alignment with the overall industry trend towards copper wire bond. The qualification of the Shinetsu KMC3580LVA allows for an improvement in product reliability and/or product cycle time.

Part Numbers Affected: 91
See the attached 'Affected Parts List' file for a list of all part numbers affected by this change. Note that any new parts that are introduced after the publication of this PCN will include all changes outlined in this PCN.

Qualification Status:
This change has been qualified through a series of tests documented in the Qualification Test Plans QTP#191504 and QTP#194111. These qualification reports can be found as attachments to this PCN or by visiting www.cypress.com and typing the QTP number in the keyword search window.

Sample Status:
Qualification samples may not be built ahead of time for all part numbers affected by this change. Please review the attached 'Affected Parts List' file for a list of affected part numbers with their associated Cypress Bangkok sample ordering part numbers. Samples are available now unless there is an indication that the sample ordering part numbers are subject to lead times. If you require qualification samples, please contact your local Cypress sales representative as soon as possible, preferably within 30 days of the date of this PCN, to place any sample orders.

Approximate Implementation Date:
Effective 90 days from the date of this notification or upon customer approval, whichever comes first, all shipments of Commercial, Industrial and Automotive non-PPAP part numbers in the attached file will be assembled at Cypress Bangkok or other approved assembly sites.

Anticipated Impact:
Products assembled with the CuPdAu wire and Shinetsu KMC3580LVA mold compound are completely compatible with existing products from form, fit, functional, parametric and quality performance perspectives.

Cypress also recommends that customers take this opportunity to review these changes against current application notes, system design considerations and customer environment conditions to assess impact (if any) to their application.

Method of Identification:
Cypress maintains traceability of product to wafer level, including wafer fabrication location, through the lot number marked on the package.

Response Required:
No response is required.

For additional information regarding this change, contact your local sales representative or contact the PCN Administrator at pcn_adm@cypress.com.

Sincerely,

Cypress PCN Administration