Cypress Semiconductor Corporation, 198 Champion Court, San Jose, CA 95134. Tel: (408) 943-2600

PRODUCT CHANGE NOTIFICATION

PCN: PCN201102 **Date:** March 15, 2020

Subject: Qualification of Die Attach Material and Die Thickness Change for 44-Lead TSOP II 2-Die Stack Package Assembled at OSET

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

Change Type: Major

Description of Change:
Cypress announces the qualification of existing die attach material (Hitachi HR5104) and 3 mils die thickness change for 44-Lead TSOP II 2-Die Stack Pb Free package assembled at OSE (OSET, 12-2 Nel Huan South Rd. N.E.P.Z. Kaohsiung, Taiwan 811, R.O.C.)

This existing die attach material and 3 mils die thickness is compatible with industry standard reflow conditions for applicable package volume, thickness and lead finish. There is no change in the moisture sensitivity level, product performance or ordering part numbers.

The 44-Lead TSOP II 2-Die Stack (die part 7C14104/NVSRAM), 400 Mils, Pb-Free package is assembled at OSET using the following Bill of Materials:

Material	New OSET BOM	Current OSET BOM
Mold Compound	Hitachi CEL 9200HF-U	Hitachi CEL 9200HF-U
Leadframe	Cu Lead Frame	Cu Lead Frame
Die Attach	Nitto EM760 or Hitachi HR5104	Nitto EM760
Bond Wire	1.0mil Au wire	1.0mil Au wire
Die thickness	3 mils	3 mils

The 44-Lead TSOP II 2-Die Stack (for die part 7C1041/Async), 400 Mils, Pb-Free package is assembled at OSET using the following Bill of Materials:

Material	New OSET BOM	Current OSET BOM
Mold Compound	Hitachi CEL 9200HF-U	Hitachi CEL 9200HF-U
Leadframe	Cu Lead Frame	Cu Lead Frame
Die Attach	Nitto EM760 or Hitachi HR5104	Hitachi HR5104
Bond Wire	1.0mil Au wire	1.0mil Au wire
Die thickness	3 mils	4 mils

Benefit of Change:
The qualification of the die attach material (Nitto EM760 / Hitachi HR5104) and die thickness allows for an improvement in product/material supply flexibility.

Part Numbers Affected: 26
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 below. 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.

QTP	Qualification	Process Coverage
194505	Qualification of Die Thickness Change for 44-Lead TSOP II 2-Die Stack Packages Assembled at OSE-Taiwan (T)	Hitachi HR5104 & 3 mils die thickness for die part 7C14104
194506	Qualification of Die Thickness Change for 44-Lead TSOP II 2-Die Stack Packages Assembled at OSE-Taiwan (T)	Hitachi HR5104 & 3 mils die thickness for die part 7C1041

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 OSE-Taiwan 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 the 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 OSE-Taiwan or other approved assembly sites.

Anticipated Impact:
Products assembled with the Nitto EM760 / Hitachi HR5104 die attach film and new die thickness 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