



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

PRODUCT CHANGE NOTIFICATION

PCN: PCN145319

Date: June 17, 2014

Subject: Qualification of Manufacturing Changes for PSoC 4A Products

To: PCN ADMIN
CYPRESS
pcn_adm@cypress.com

Change Type: Major

Description of Changes: Cypress announces the following qualifications for PSoC 4A products;

- 1) United Microelectronics Corporation (UMC), Taiwan as an additional wafer fab location.
- 2) Bond wire change from Copper to Copper-Palladium for 40-lead QFN package at Cypress (CY) Philippines and 44-lead TQFP package at ASE Kaohsiung Taiwan (ASE-KH).
- 3) Minor mask changes at Cypress Minnesota fab (CMI) to improve device performance.

The table below shows the current and updated fab locations and assembly sites with Copper-Palladium wire bonds for PSoC 4A products. Effective 90 days from the date of this notification or upon receipt of customer acceptance, whichever comes first, shipments will come from the locations shaded in gray. There will be no changes to product datasheets and part numbers.

	Current	Updated
Wafer Fab Site	Cypress Minnesota (CMI)	CMI&UMC

40-Lead QFN Package		
Assembly Site	CY Philippines	CY Philippines
Mold Compound	Nitto 7470	Nitto 7470
Die Attach Epoxy	Henkel QMI-519	Henkel QMI-519
Bond Wire	0.8mil Cu	0.8mil CuPd
Lead Finish	NiPdAu	NiPdAu

44-Lead TQFP Package		
Assembly Site	ASE-KH	ASE-KH
Mold Compound	Sumitomo EME-G631	Sumitomo EME-G631
Die Attach	Hitachi DAF FH-900	Hitachi DAF FH-900
Bond Wire	0.8mil Cu	0.8mil CuPd
Lead Finish	Pure Sn	Pure Sn

Benefit of Change:

Qualification of alternate manufacturing sites is part of the ongoing flexible manufacturing initiative by Cypress. The conversion to Copper Palladium wire bonds will keep Cypress in alignment with the overall industry trend towards Copper Palladium wire bonds. This also provides the means for Cypress to continue to meet customers' varied packaging needs as well as delivery commitments in dynamic, changing market conditions.

The minor mask changes are to improve the performance of device parameters listed below. None of these changes impact product datasheets but there will be margin improvement to datasheet limits.

- 1) Reduced IDDA when VDDA is above 4V
- 2) Reduced deep-sleep current
- 3) Improved SAR ADC linearity
- 4) Reduced Op Amp IDD current in low-power mode

Affected Part Numbers: 22

Affected Parts: See the attached 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:

The changes listed in this PCN have been qualified through a series of tests documented in the Qualification Test Plan (QTP) reports indicated in the table below. Qualification reports can be found as attachments to this notification or by visiting www.cypress.com, typing the QTP number in the keyword search window. All QTP reports will be available upon PCN notice.

Change	QTP Number
UMC Wafer Fab Site	134904
40-lead QFN CY Philippines – CuPd Wire	141702
44-lead TQFP ASE-KH – CuPd Wire	141404
Minor Mask Changes	134903

Sample Status:

Qualification samples are not built ahead of time for all part numbers affected by this change. Please review the attached file for a list of affected part numbers with their associated sample ordering part numbers. Sample requests for products without sample order part numbers will be built to order and subject to standard lead times. Please contact your sales representative as soon as possible, but 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 the affected part numbers in the attached file will be supplied with Copper Palladium wire bonds from any of the qualified manufacturing sites.

Anticipated Impact:

Products manufactured at any new fabrication or assembly site or with Copper Palladium wire bonds are completely compatible with existing product from a functional, parametric, and quality performance perspective.

Cypress 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:

There will be no changes to the part number. 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

Item	Marketing Part Number	Sample Order Part Number
1	CY8C4124AXI-443	CY8C4125AXI8-483
2	CY8C4124LQI-443	CY8C4125LQI8-483
3	CY8C4124PVI-442	CY8C4125PVI8-482
4	CY8C4124PVI-442T	CY8C4125PVI8-482
5	CY8C4125AXI-483	CY8C4125AXI8-483
6	CY8C4125LQI-483	CY8C4125LQI8-483
7	CY8C4125LQI-483T	CY8C4125LQI8-483
8	CY8C4125PVI-482	CY8C4125PVI8-482
9	CY8C4125PVI-482T	CY8C4125PVI8-482
10	CY8C4244LQI-443	CY8C4245LQI8-483
11	CY8C4244PVI-442	CY8C4245PVI8-482
12	CY8C4245AXI-483	CY8C4245AXI8-483
13	CY8C4245LQI-483	CY8C4245LQI8-483
14	CY8C4245LQI-483T	CY8C4245LQI8-483
15	CY8C4245PVI-482	CY8C4245PVI8-482
16	CY8CEBIKEAXI-111	Available to order; subject to leadtime
17	CG7999AA	Available to order; subject to leadtime
18	CG8000AA	Available to order; subject to leadtime
19	CG8001AA	Available to order; subject to leadtime
20	CG8078AM	Available to order; subject to leadtime
21	CG8079AM	Available to order; subject to leadtime
22	CG8080AM	Available to order; subject to leadtime

Package
44-lead TQFP
40-lead QFN
28-lead SSOP
28-lead SSOP
44-lead TQFP
40-lead QFN
40-lead QFN
28-lead SSOP
28-lead SSOP
40-lead QFN
28-lead SSOP
44-lead TQFP
40-lead QFN
40-lead QFN
28-lead SSOP
44-lead TQFP
40-lead QFN
44-lead TQFP
28-lead SSOP
44-lead TQFP
40-lead QFN
40-lead QFN