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## PRODUCT CHANGE NOTIFICATION

**PCN:** PCN173801

**Date:** September 19, 2017

**Subject:** Qualification of Fab 25 with the Copper (Cu) BEOL Process and HHGrace as an Additional Fab Site for the EZ-PD™ CCG2 USB Type-C PD Controller Product Family

**Change Type:** Major

### **Description of Change:**

Cypress announces the qualification of Fab 25 in Austin, Texas with the Copper (Cu) Backend of Line (BEOL) process and HHGrace, Taiwan, as an additional wafer fab site for the EZ-PD™ CCG2 USB Type-C Power Delivery (PD) Controller product family. Cypress already announced the qualification of Fab 25 in Austin, Texas with the Aluminum (Al) Backend of Line (BEOL) process in December 2016.

The Aluminum (Al) BEOL process uses Tungsten (W) plugs and Ti/TiN/Al metallization with subtractive patterning to create the metal interconnect layers. The Cu BEOL process converts the underlying metal interconnect layers from W plugs to Cu plugs and from Ti/TiN/Al metallization with subtractive patterning to Cu damascene with Ta/TaN barriers.

These qualifications are part of the flexible manufacturing initiatives which allow Cypress to meet its delivery commitments in dynamic and changing market conditions.

### **Benefit of Change:**

Cypress will have the added capability to meet upside market demand, ensure consistent and reliable delivery to customers.

### **Part Numbers Affected:** 86

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:**

The Cu BEOL process and wafer fab site have been qualified through a series of tests documented in the Qualification Test Plan (QTP) report 164802 and (QTP) report 164010. Qualification reports can be found as attachments to this notification or by visiting [www.cypress.com](http://www.cypress.com) and typing the QTP number in the keyword search window.

**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 samples built ahead of time 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 from any of the qualified manufacturing sites.

**Anticipated Impact:**

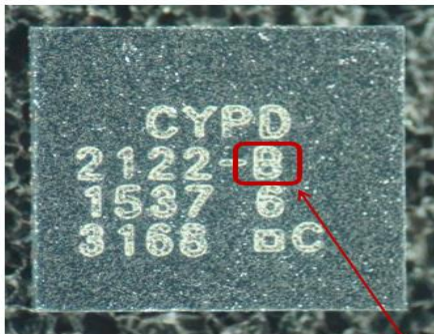
Products manufactured at Cypress Fab 25 with the Cu BEOL process and at HHGrace are completely compatible with existing products from a functional, parametric, and quality performance perspective.

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.

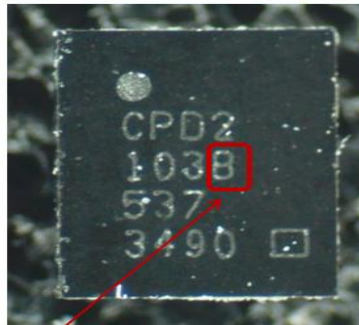
**Method of Identification:**

There will be no changes to the part number. See below diagram for identifying fab location on CCG2 devices.

LQ24 Marking



FN20 Marking



Mark Die Revision

Mark Die Revision	Silicon Revision	Fab Location
A	A	CMI/Skywater
B	B	CMI/Skywater
C	B	Fab 25 AI
E	B	Fab 25 Cu
D	B	HHGrace

Cypress maintains traceability of product to wafer level, including wafer fabrication location and assembly location through the lot number marked on the package. There will be no changes to the ordering codes or marking on production material after the change implementation date.

**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](mailto:pcn_adm@cypress.com).

Sincerely,

Cypress PCN Administration

Item	Marketing Part Number	Item	Marketing Part Number
1	CYPD2103-14LHXIT	44	CP8479ATT
2	CYPD2103-20FNXIT	45	CP8479BTT
3	CYPD2104-20FNXIT	46	CP8479CTT
4	CYPD2105-20FNXIT	47	CP8479DTT
5	CYPD2119-24LQXI	48	CP8479ETT
6	CYPD2119-24LQXIT	49	CP8479FTT
7	CYPD2120-24LQXI	50	CP8479GTT
8	CYPD2120-24LQXIT	51	CP8483AT
9	CYPD2121-24LQXI	52	CP8483ATT
10	CYPD2121-24LQXIT	53	CP8483BT
11	CYPD2122-20FNXIT	54	CP8483BTT
12	CYPD2122-24LQXI	55	CP8483CT
13	CYPD2122-24LQXIT	56	CP8483CTT
14	CYPD2125-24LQXI	57	CP8483DT
15	CYPD2125-24LQXIT	58	CP8483DTT
16	CYPD2134-16SXI	59	CP8551AT
17	CYPD2134-16SXIT	60	CP8551ATT
18	CYPD2134-24LQXI	61	CP8617AT
19	CYPD2134-24LQXIT	62	CP8617ATT
20	CYPD2134-24LQXQ	63	CP8618ATT
21	CYPD2134-24LQXQT	64	CP8627AT
22	CG8476AAT	65	CP8627ATT
23	CG8477AA	66	CP8627BT
24	CG8477AAT	67	CP8627BTT
25	CG8559AMT	68	CP8628AT
26	CG8560AMT	69	CP8628ATT
27	CG8584AA	70	CP8628BT
28	CG8584AAT	71	CP8628BTT
29	CG8586AM	72	CP8628CT
30	CG8586AMT	73	CP8628CTT
31	CG8646AA	74	CP8642AT
32	CG8646AAT	75	CP8642ATT
33	CG8682AF	76	CP8654AT
34	CG8682AFT	77	CP8654ATT
35	CG8683AFT	78	CP8654BT
36	CG8740AAT	79	CP8654BTT
37	CG8751AF	80	CP8654CT
38	CG8751AFT	81	CP8654CTT
39	CG8764AFT	82	CP8659AT
40	CG8765AF	83	CP8659ATT
41	CG8765AFT	84	CP8685AT
42	CP8456AT	85	CP8685ATT
43	CP8456ATT	86	CP8694ATT