



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

PRODUCT CHANGE NOTIFICATION

PCN: PCN191201A

Date: April 04, 2019

Subject: Addendum to PCN191201 – Qualification of PTI-SG as an Additional Backend Process and Finish Site and an Alternate Source for Packaging Materials for Select Plated Bump WLCSP Products

Change Type: Major

Description of Change:

The purpose of this addendum is to correct the cover tape width from 13.3 mm to 9.3 mm and from 13.3 mm to 9.2/9.3 mm communicated in the initial PCN191201.

Cypress announced the qualification of Powertech Technology Inc. Singapore (PTI-SG – 12 Ang Mo Kio Street 65, Singapore 569060) as an additional backend process and finish site for select plated bump WLCSP products. This is part of the ongoing flexible manufacturing initiative announced by Cypress.

PTI-SG is the only 300mm wafer bumping facility in Singapore. This qualification will allow Cypress to leverage PTI-SG's manufacturing expertise and quality focus. This in turn also provides the means for Cypress to continue to meet its customers' needs as well as delivery commitments in dynamic, changing market conditions. PTI-SG is certified on several international quality standards: ISO 9001, ISO14001 and OHSAS18001.

Cypress also announces the qualification of an alternate source for carrier tape and cover tape for 395-Ball WLCSP (4.87X7.67X0.33 mm), 316-Ball WLCSP (4.907x5.848x0.33 mm), 125-Ball WLCSP (2.518X2.770X0.42 mm) and 208-Ball WLCSP (4.08X4.48X0.41 mm).

- No changes in carrier tape dimensions and materials for all the affected packages except a minor improvement on pocket depth for 208-Ball WLCSP (4.08X4.48X0.41 mm). Refer to attachment for 208-Ball WLCSP (4.08X4.48X0.41 mm) drawing.
- Cover tape type changed from pressure seal to heat seal.

The alternate source carrier tape and cover tape have the following details.

Carrier Tape and Cover Tape details:

Items	395-Ball WLCSP		316-Ball WLCSP		125-Ball WLCSP		208-Ball WLCSP	
	4.87X7.67X0.33 mm		4.907x5.848x0.33 mm		2.518X2.770X0.42 mm		4.08X4.48X0.41 mm	
	Existing Carrier Tape	Alternative Carrier Tape	Existing Carrier Tape	Alternative Carrier Tape	Existing Carrier Tape	Alternative Carrier Tape	Existing Carrier Tape	Alternative Carrier Tape
Carrier Tape Supplier	3M	Advantek Shinpoly	3M	Advantek Shinpoly	3M	Advantek Shinpoly	3M	Advantek Shinpoly
Carrier Tape Material Type	Poly carbonate	Poly carbonate	Poly carbonate	Poly carbonate	Poly carbonate	Poly carbonate	Poly carbonate	Poly carbonate
Carrier Tape Unit Orientation	Quadrant 1	Quadrant 1	Quadrant 1	Quadrant 1	Quadrant 1	Quadrant 1	Quadrant 1	Quadrant 1
W: Tape Width (mm)	16.00+0.30/-0.10	16.00+0.30/-0.10	16.00+0.30/-0.10	16.00+0.30/-0.10	12.00+0.30/-0.10	12.00+0.30/-0.10	12.00+0.30/-0.10	12.00+0.30/-0.10
P1: Pocket Pitch (mm)	8.00 ± 0.10	8.00 ± 0.10	8.00 ± 0.10	8.00 ± 0.10	8.00 ± 0.10	8.00 ± 0.10	8.00 ± 0.10	8.00 ± 0.10
Ao: Pocket Length (mm)	5.01 ± 0.05	5.01 ± 0.05	5.08 ± 0.05	5.08 ± 0.05	2.69 ± 0.05	2.69 ± 0.05	4.28 ± 0.05	4.28 ± 0.05
Bo: Pocket Width (mm)	7.81 ± 0.05	7.81 ± 0.05	6.02 ± 0.05	6.02 ± 0.05	2.94 ± 0.05	2.94 ± 0.05	4.68 ± 0.05	4.68 ± 0.05
Ko: Pocket Height (mm)	0.43 ± 0.05	0.43 ± 0.05	0.46 ± 0.05	0.46 ± 0.05	0.55 ± 0.05	0.55 ± 0.05	0.68 ± 0.05	*0.55± 0.05
Cover Tape Supplier	3M	Advantek Shinpoly	3M	Advantek Shinpoly	3M	Advantek Shinpoly	3M	Advantek Shinpoly
Cover Tape Material Type	Polyester Film	Polyester Film	Polyester Film	Polyester Film	Polyester Film	Polyester Film	Polyester Film	Polyester Film
Cover Type	Pressure	Heat	Pressure	Heat	Pressure	Heat	Pressure	Heat
Cover Tape Width (mm)	13.3	13.3	13.3	13.3	9.3	9.2/9.3	9.3	9.2/9.3
Cover Tape Color	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear

Note *: A minor improvement on pocket depth

Benefit of Change:

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

Part Numbers Affected: 7

Please refer to 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 in this PCN.

Qualification Status:

These packages have been qualified through a series of tests documented in the Qualification Test Plan (QTP) reports in the table 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 Report Number	Qualification
184601	Qualification of PTI-SG as an additional Backend Site for Plated Bump WLCSP Products
184309	Qualification of Advantek Carrier Tape, Cover Tape and Reel for 125, 208, 316 and 395 Ball Wafer Level Chip Scale Package (WLCSP) at PTI Singapore
184405	Qualification of ShinPoly Carrier Tape, Cover Tape and Reel for 125, 208, 316 and 395 Ball Wafer Level Chip Scale Package (WLCSP) at PTI Singapore

Approximate Implementation Date:

Effective 90 days from the date of this notification or upon customer approval, whichever comes first, all shipments in the attached file will be backend processed and finished at PTI-SG or other approved sites. The affected part numbers will be supplied with either the current packaging materials or new packaging materials.

Anticipated Impact:

Products backend processed and finished at the new site are completely compatible with existing products from form, fit, functional, parametric and quality performance perspectives. Also, there is no anticipated impact on the use of the new cover tape and carrier tape on the affected devices.

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

Item	Marketing Part Number	Sample Order Part Number
1	CYW20707VA1PKWBGT	CYW20707VA1PKWBGXT
2	CYW20707VA2PKWBGT	CYW20707VA2PKWBGXT
3	CYW4334XKWBGT	CYW4334XKWBGXT
4	CYW4354KKWBGT	CYW4354KKWBGXT
5	CYW4356XKWBGT	CYW4356XKWBGXT
6	CYW43907KWBGT	CYW43907KWBGXT
7	CG8882AMT	CG8882AMXT