

PRODUCT CHANGE NOTIFICATION

PCN: PCN203103

Date: July 28, 2020

Subject: Transfer of Assembly Operations to Greatek Electronics Inc. for Select SOIC, SSOP and SOJ Packages

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

Change Type: Major

Description of Change:

Cypress announces the qualification of Greatek Electronics Inc., Taiwan located at No. 136, Gong-Yi Rd., Zhunan Township, Miaoli County 350, Taiwan, as an alternate assembly site for select Memory and USB products offered in 32-Lead SOIC (450mil), 56-Lead SSOP (300mil) and 44-Lead SOJ (400mil), 36-Lead SOJ (400mil), 32-Lead SOJ (400mil), 32-Lead SOJ (300mil), 28-Lead SOJ (300mil) packages.

These products are currently processed at Jiangsu Changjiang Electronics Technology Co., Ltd (JCET), Cypress' subcontractor in China. The transfer of assembly operations to Greatek is motivated by JCET's phasing out (i.e., End-Of-Life) of SOIC, SSOP and SOJ manufacturing operations, as previously announced in advance PCN (APCN 201001 and APCN 201002).

Given the imminent phase out of operations at JCET, and the dynamically changing market conditions, Cypress is pleased to offer supply of changed material (i.e., Greatek assembled product) ahead of the implementation date. Customers are strongly encouraged to avail of this option, where production volumes of Greatek assembled product can be secured and shipped against current orders. Please contact your Cypress Sales Representative for more information on availing this option.

Greatek is certified by international quality and safety standards, namely, ISO 9001, IATF 16949, ISO 14001, and ISO 26262. These certificates, along with their Sony Green Partnership certificate, can be viewed on their corporate web site: <u>http://www.greatek.com.tw/</u>

BOM Comparison:

The SOIC, SSOP and SOJ packages will be assembled at Greatek using an industry standard set of Bill of Materials (BOM). Please see table below for a comparison of BOM between Greatek and JCET.

a) The 32-Lead SOIC package is assembled at Greatek using the following Bill of Materials (BOM):

For Automotive product:

Material	Greatek BOM	JCET BOM
Leadframe Type	Cu Leadframe	PPF Leadframe
Leadfinish	Pure Sn	NiPdAu
Die Attach Material	Hitachi EN-4900GC	Henkel QMI-509
Wire type	1.0 mil Au wire	1.0 mil Au wire
Mold Compound	Sumitomo EME-G700SLA	Kyocera KE-G6000DA-CY

For Non-Automotive product:

Material	Greatek BOM	JCET BOM
Leadframe Type	Cu Leadframe	PPF/ Cu Leadframe
Leadfinish	Pure Sn	NiPdAu/Pure Sn
Die Attach Material	Hitachi EN-4900GC	Henkel QMI-509
Wire type	0.8 mil CuPdAu wire	1.0mil Au wire/ 0.8mil CuPd wire
Mold Compound	Sumitomo EME-G700SLA	Kyocera KE-G6000DA-CY

b) The 56-Lead SSOP package is assembled at Greatek using the following Bill of Materials (BOM):

Material	Greatek Taiwan BOM	JCET China BOM
Leadframe Type	Cu Leadframe	Cu Leadframe
Leadfinish	Pure Sn	Pure Sn
Die Attach Material	Hitachi EN-4900GC	Henkel QMI-509
Wire type	0.8 mil CuPdAu wire	0.9mil Au wire/ 0.8mil CuPd wire
Mold Compound	Sumitomo EME-G700H	Kyocera KE-G3000DA-CY/
		Sumitomo EME G620B

c) The SOJ packages are assembled at Greatek using the following Bill of Materials (BOM):

Material	Greatek BOM	JCET BOM
Leadframe Type	Cu Leadframe	Cu Leadframe
Leadfinish	Pure Sn	Pure Sn
Die Attach Material	Hitachi EN-4900GC	Henkel QMI-509
Wire type	0.8 mil CuPdAu wire	0.9mil Au wire/ 0.8mil CuPd wire
Mold Compound	Sumitomo EME-G700SLA	Sumitomo EME-G620B/ Sumitomo
		EME-G631SH-Q/ Kyocera KE-
		G6000DA-CY

Benefit of Change:

Qualification of alternative manufacturing sites provides the means for Cypress to ensure business continuity on the stated products, and thereby meet long-term market demand and delivery commitments to customers after the phase out of operations at JCET.

Part Numbers Affected: 69

See the attached 'Affected Parts List' file for a list of all part numbers affected by this change. Note that any new parts introduced after the publication of this PCN will be assembled at Greatek.

Qualification Status:

Greatek has been qualified through a series of tests documented in the Qualification Test Plans summarized in the table below. These qualification reports can be found as attachments to this PCN or by visiting <u>www.cypress.com</u> and typing the QTP number in the keyword search window.

QTP Number	Qualification Purpose
201304	SOIC 32L Package Qual at Greatek Taiwan
201104	SOIC 32L Package Qual at Greatek Taiwan
200404	SSOP 56L Package Qual at Greatek Taiwan
201301	SOJ Package Qual at Greatek Taiwan

Sample Status:

Samples are available now, unless there is an indication that the sample ordering part numbers are subject to lead times. 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 Greatek sample ordering part numbers.

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 notification.

Approximate Implementation Date:

Effective immediately upon customer approval, or 90 days from the date of this notification, whichever comes first, shipments on part numbers in the attached file will be primarily sourced from Greatek. Customers should expect to receive JCET assembled product for a transitionary period, until inventory is depleted. For Automotive PPAP part numbers this change will be effective upon customer approval.

Anticipated Impact:

Products assembled at Greatek 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 this change against current application notes, system design considerations and customer environment conditions to assess impact (if any) to their application.

Method of Identification:

Cypress also 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 <u>pcn_adm@cypress.com</u>.

Sincerely,

Cypress PCN Administration