

PRODUCT CHANGE NOTIFICATION

PCN: PCN205101

Date: December 18, 2020

Subject: Qualification of Greatek Electronics Inc.as an Alternate Assembly Site for Select 44-Lead TSOP II Package

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 products offered in 44-Lead TSOP II package.

These products are currently processed at Jiangsu Changjiang Electronics Technology Co., Ltd (JCET) of Cypress' subcontractor in China; Orient Semiconductor Electronics (OSET) of Cypress subcontractor in Taiwan and IFX Cypress Manufacturing Limited (CML) in Philippines. The transfer of assembly operations to Greatek is motivated by JCET's phasing out (i.e., End-Of-Life) of TSOP manufacturing operations, as previously announced in advance PCN - APCN 201001/ 201002 and also as alternative assembly site.

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 44-Lead TSOP II package will be assembled at Greatek using an industry standard set of Bill of Materials (BOM). Please see table below for a comparison of BOM among the assembly sites.

The 44-Lead TSOP II package is assembled at Greatek using the following Bill of Materials (BOM):

For Automotive product:

Material	Greatek BOM	JCET BOM	OSET BOM
Leadframe	Cu Leadframe	PPF Leadframe	Cu Leadframe
Leadfinish	Pure Sn	NiPdAu	Pure Sn
Die Attach Material	Showa Denko EN-4900GC	Henkel QMI-509	Sumitomo CRM-1076W
Wire type	0.9 mil Au wire	0.9mil Au wire	0.8mil Au wire
Mold Compound	Sumitomo EME-G700SLA	Kyocera KE-G6000DA- CY	Sumitomo EME-G631SH

For Non-Automotive product:

Material	Greatek BOM	JCET BOM	OSET BOM	IFX CML BOM
Leadframe	Cu Leadframe	PPF/ Cu Leadframe	Cu Leadframe	PPF/ Cu Leadframe
Leadfinish	Pure Sn	NiPdAu/ Pure Sn	Pure Sn	NiPdAu
Die Attach Material	Showa Denko EN- 4900GC	Henkel QMI-509	Henkel 8340/ Sumitomo CRM1076/ Nitto EM-760L2	Henkel QMI-509
Wire type	0.8mil CuPdAu wire	0.8/ 0.9mil Au wire/ 0.8mil CuPd wire	1.0mil Au wire/ 0.8mil Cu wire/ 0.8mil CuPd wire	0.9mil Au wire/ 0.8mil CuPd wire
Mold Compound	Sumitomo EME- G700SLA	Kyocera KE- G6000DA-CY/ Sumitomo EME- G620B / Sumitomo EME-G631SH-Q	Showa Denko CEL 9200HF/ Showa Denko CEL 9200HF-U/ Sumitomo EME- G631	Kyocera KE- G6000DA

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: 232

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 Plan 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	
203206 TSOP II 44L Automotive Package Qual at Greatek Taiwan		
203207	TSOP II 44L 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.

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 pcn_adm@cypress.com.

Sincerely,

Cypress PCN Administration

Item Marketing Part Number

- 1 A2C01848400
- 2 CY14B101KA-ZS25XI
- 3 CY14B101KA-ZS25XIT
- 4 CY14B101KA-ZS45XI
- 5 CY14B101KA-ZS45XIT
- 6 CY14B101LA-ZS20XI
- 7 CY14B101LA-ZS20XIT
- 8 CY14B101LA-ZS25XI
- 9 CY14B101LA-ZS25XIT
- 10 CY14B101LA-ZS45XI
- 11 CY14B101LA-ZS45XIT
- 12 CY14B101NA-ZS25XI
- 13 CY14B101NA-ZS25XIT
- 14 CY14B101NA-ZS45XI
- 15 CY14B101NA-ZS45XIT
- 16 CY14B104K-ZS25XI
- 17 CY14B104K-ZS25XIT
- 18 CY14B104K-ZS45XI
- 19 CY14B104K-ZS45XIT
- 20 CY14B104LA-ZS20XI
- 21 CY14B104LA-ZS20XIT
- 22 CY14B104LA-ZS25XI
- 23 CY14B104LA-ZS25XIT
- 24 CY14B104LA-ZS45XI
- 25 CY14B104LA-ZS45XIT
- 26 CY14B104NA-ZS20XI
- 27 CY14B104NA-ZS20XIT
- 28 CY14B104NA-ZS25XE
- 29 CY14B104NA-ZS25XET
- 30 CY14B104NA-ZS25XI
- 31 CY14B104NA-ZS25XIT
- 32 CY14B104NA-ZS45XE
- 33 CY14B104NA-ZS45XET
- 34 CY14B104NA-ZS45XI
- 35 CY14B104NA-ZS45XIT
- 36 CY14B256LA-ZS25XI
- 37 CY14B256LA-ZS25XIT
- 38 CY62126EV30LL-45ZSXI
- 39 CY62126EV30LL-45ZSXIT
- 40 CY62136ESL-45ZSXI
- 41 CY62136ESL-45ZSXIT
- 42 CY62136EV30LL-45ZSXI
- 43 CY62136EV30LL-45ZSXIT
- 44 CY62136FV30LL-45ZSXI
- 45 CY62136FV30LL-45ZSXIT

- 46 CY62137EV30LL-45ZSXI 47 CY62137EV30LL-45ZSXIT 48 CY62137FV30LL-45ZSXI 49 CY62137FV30LL-45ZSXIT 50 CY62146ELL-45ZSXI 51 CY62146ELL-45ZSXIT 52 CY62146ESL-45ZSXI 53 CY62146ESL-45ZSXIT 54 CY62146EV30LL-45ZSXI 55 CY62146EV30LL-45ZSXIT 56 CY62146G30-45ZSXI 57 CY62146G30-45ZSXIT 58 CY62146G-45ZSXI 59 CY62146G-45ZSXIT 60 CY62146GE30-45ZSXI 61 CY62146GE30-45ZSXIT 62 CY62146GE-45ZSXI 63 CY62146GE-45ZSXIT 64 CY62146GN30-45ZSXI 65 CY62146GN30-45ZSXIT 66 CY62146GN-45ZSXI 67 CY62146GN-45ZSXIT 68 CY621472E30LL-45ZSXI 69 CY621472E30LL-45ZSXIT 70 CY621472G30-45ZSXI 71 CY621472G30-45ZSXIT 72 CY621472GN30-45ZSXI 73 CY621472GN30-45ZSXIT 74 CY62147EV30LL-45ZSXI 75 CY62147EV30LL-45ZSXIT 76 CY62147G18-55ZSXI 77 CY62147G18-55ZSXIT 78 CY62147G30-45ZSXI 79 CY62147G30-45ZSXIT 80 CY62147G-45ZSXI 81 CY62147G-45ZSXIT 82 CY62147GE18-55ZSXI 83 CY62147GE18-55ZSXIT 84 CY62147GE30-45ZSXI 85 CY62147GE30-45ZSXIT 86 CY62147GE-45ZSXI 87 CY62147GE-45ZSXIT 88 CY62147GN30-45ZSXI 89 CY62147GN30-45ZSXIT 90 CY62157ELL-45ZSXI
- 91 CY62157ELL-45ZSXIT

92 CY62157ESL-45ZSXI 93 CY62157ESL-45ZSXIT 94 CY62157EV30LL-45ZSXI 95 CY62157EV30LL-45ZSXIT 96 CY62157G30-45ZSXI 97 CY62157G30-45ZSXIT 98 CY62158ELL-45ZSXI 99 CY62158ELL-45ZSXIT 100 CY62158EV30LL-45ZSXI 101 CY62158EV30LL-45ZSXIT 102 CY62158G30-45ZSXI 103 CY62158G30-45ZSXIT 104 CY62158H-45ZSXI 105 CY62158H-45ZSXIT 106 CY7C1010DV33-10ZSXI 107 CY7C1010DV33-10ZSXIT 108 CY7C1011DV33-10ZSXI 109 CY7C1011DV33-10ZSXIT 110 CY7C1020D-10ZSXI 111 CY7C1020D-10ZSXIT 112 CY7C1020DV33-10ZSXI 113 CY7C1020DV33-10ZSXIT 114 CY7C1021D-10ZSXI 115 CY7C1021D-10ZSXIT 116 CY7C1021DV33-10ZSXI 117 CY7C1021DV33-10ZSXIT 118 CY7C1041G-10ZSXI 119 CY7C1041G-10ZSXIT 120 CY7C1041G18-15ZSXI 121 CY7C1041G18-15ZSXIT 122 CY7C1041G30-10ZSXI 123 CY7C1041G30-10ZSXIT 124 CY7C1041GE-10ZSXI 125 CY7C1041GE-10ZSXIT 126 CY7C1041GE30-10ZSXI 127 CY7C1041GE30-10ZSXIT 128 CY7C1041GN-10ZSXI 129 CY7C1041GN-10ZSXIT 130 CY7C1041GN30-10ZSXI 131 CY7C1041GN30-10ZSXIT 132 CY7C1049G-10ZSXI 133 CY7C1049G-10ZSXIT 134 CY7C1049G18-15ZSXI 135 CY7C1049G18-15ZSXIT 136 CY7C1049G30-10ZSXI 137 CY7C1049G30-10ZSXIT

138 CY7C1049GE30-10ZSXI 139 CY7C1049GE30-10ZSXIT 140 CY7C1049GN30-10ZSXI 141 CY7C1049GN30-10ZSXIT 142 CY7C1051H30-10ZSXI 143 CY7C1051H30-10ZSXIT 144 CY7S1041G-10ZSXI 145 CY7S1041G-10ZSXIT 146 CY7S1041G30-10ZSXI 147 CY7S1041G30-10ZSXIT 148 CG10055AF 149 CG10055AFT 150 CG10081AF 151 CG10081AFT 152 CG10105AF 153 CG10105AFT 154 CG7285AT 155 CG7647AA 156 CG7647AAT 157 CG7689AA 158 CG7689AAT 159 CG7690AA 160 CG7690AAT 161 CG7691AA 162 CG7691AAT 163 CG7740AA 164 CG7740AAT 165 CG7794AA 166 CG7794AAT 167 CG7797AA 168 CG7797AAT 169 CG7818AA 170 CG7818AAT 171 CG7832AA 172 CG7832AAT 173 CG7945AA 174 CG7945AAT 175 CG7947AA 176 CG7947AAT 177 CG8187AA 178 CG8187AAT 179 CG8264AA 180 CG8395AT 181 CG8395ATT 182 CG8556AA

183 CG8556AAT

184 CG8557AA 185 CG8557AAT 186 CG8605AA 187 CG8605AAT 188 CG8630AA 189 CG8630AAT 190 CG8830AM 191 CG8830AMT 192 CG8831AM 193 CG8832AM 194 CG8832AMT 195 CG8835AM 196 CG8835AMT 197 CG8876AM 198 CG8876AMT 199 CG8877AM 200 CG8877AMT 201 CG8888AM 202 CG8888AMT 203 CG8985AM 204 CG8985AMT 205 CG8986AM 206 CG8986AMT 207 CG8991AA 208 CG8991AAT 209 CG9066AM 210 CG9066AMT 211 CG9071AM 212 CG9071AMT 213 CG9075AM 214 CG9075AMT 215 CG9079AA 216 CG9079AAT 217 CG9081AA 218 CG9081AAT 219 CG9159AT 220 CG9159ATT 221 CG9187AA 222 CG9187AAT 223 CG9229AA 224 CG9229AAT 225 CG9231AF 226 CG9231AFT 227 FM22L16-55-TG 228 FM22L16-55-TGTR 229 FM28V102A-TG

230 FM28V102A-TGTR231 FM28V202A-TG232 FM28V202A-TGTR