



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

PRODUCT CHANGE NOTIFICATION

PCN: PCN194202

Date: October 16, 2019

Subject: Qualification of New Bill of Materials for QFN Pb-Free Packages Assembled at Cypress Philippines

Change Type: Major

Description of Change:

Cypress announces the qualification of new bill of materials (BOM) for QFN Pb-Free packages assembled at Cypress Philippines (CML, Gateway Business Park, SEPZA, Javalera, Gen. Trias Cavite, Philippines).

These changes have been done to simplify the process flow or control resulting in better product quality, field reliability and continuity of supply. This in turn provides the means for Cypress to continue to meet our customers' requirements and meet our delivery commitments in dynamic market conditions. These products are ROHS compliant.

The QFN Pb-Free packages are assembled at Cypress Philippines using the following Bill of Materials:

Material	New BOM (CML-Phil)	Current BOM (CML-Phil)
Mold Compound	Kyocera KEG3000NA-S	Hitachi CEL9220-HF13 Hitachi GE7470LA Sumitomo G700Y
Leadfinish	NiPdAu: Pd thickness: 0.2 μ inch	NiPdAu: Pd thickness: 0.5 ~ 0.8 μ inch
Die Attach Material	Sumitomo CRM1577E (non-conductive)	Henkel QMI519 (conductive)
Die Thickness	5 mils I	7 mils and 11 mils
Bond Wire	0.8 mil and 0.9 mil CuPdAu wire	0.8 mil Copper (Cu) wire 0.8 and 0.9 mil CuPd wire

Benefit of Change:

The qualification of the new bill of materials on existing qualified packages allows to simplify the process flow or control by improving the product cycle time. The bill of material conversion will keep Cypress in alignment with the overall industry trend towards Copper Palladium Gold (CuPdAu) wire bonds.

Part Numbers Affected: 518

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:

These changes have 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 www.cypress.com and typing the QTP number in the keyword search window.

QTP Number	Qualification
190704	QFN Thin Packages Qual Report
190705	QFN Thick Packages Qual Report

Sample Status:

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 I sample ordering part numbers. Sample ordering part numbers are all subject to lead times. 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 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 Commercial, Industrial and Automotive non-PPAP part numbers in the attached file will be assembled at Cypress Philippines or other approved assembly sites.

Anticipated Impact:

Products assembled with the new bill of Material 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 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 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 shipped 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.

Sincerely,

Cypress PCN Administration

Item	Marketing Part Number	Item	Marketing Part Number	Item	Marketing Part Number
1	CY7C63803-LQXC	45	CY7C65621-56LTXI	89	CY8C20437-24LQXIT
2	CY7C63833-LTXC	46	CY7C65621-56LTXIT	90	CY8C20446A-24LQXI
3	CY7C63833-LTXCT	47	CY7C65630-56LTXC	91	CY8C20446A-24LQXIT
4	CY7C64215-56LTXC	48	CY7C65630-56LTXCT	92	CY8C20447S-24LQXI
5	CY7C64215-56LTXCT	49	CY7C65630-56LTXI	93	CY8C20447S-24LQXIT
6	CY7C64215-56LTXI	50	CY7C65630-56LTXIT	94	CY8C20466A-24LQXI
7	CY7C64215-56LTXIT	51	CY7C65631-56LTXC	95	CY8C20466A-24LQXIT
8	CY7C64343-32LQXC	52	CY7C65631-56LTXCT	96	CY8C21434-24LQXI
9	CY7C64343-32LQXCT	53	CY7C65631-56LTXI	97	CY8C21434-24LQXIT
10	CY7C64345-32LQXC	54	CY7C65631-56LTXIT	98	CY8C21434-24LTXI
11	CY7C64345-32LQXCT	55	CY7C68013A-56LTXC	99	CY8C21434-24LTXIT
12	CY7C64346-32LQXC	56	CY7C68013A-56LTXCT	100	CY8C21434B-24LTXI
13	CY7C64346-32LQXCT	57	CY7C68013A-56LTXI	101	CY8C23533-24LQXI
14	CY7C64713-56LTXC	58	CY7C68013A-56LTXIT	102	CY8C23533-24LQXIT
15	CY7C65210-24LTXI	59	CY7C68014A-56LTXC	103	CY8C24193-24LQXI
16	CY7C65210-24LTXIT	60	CY7C68015A-56LTXC	104	CY8C24423A-24LTXI
17	CY7C65210A-24LTXI	61	CY7C68016A-56LTXC	105	CY8C24423A-24LTXIT
18	CY7C65210A-24LTXIT	62	CY7C68016A-56LTXCT	106	CY8C24794-24LTXI
19	CY7C65211-24LTXI	63	CY7C68023-56LTXC	107	CY8C24794-24LTXIT
20	CY7C65211-24LTXIT	64	CY7C68023-56LTXCT	108	CY8C24894-24LTXI
21	CY7C65211A-24LTXI	65	CY7C68033-56LTXC	109	CY8C24894-24LTXIT
22	CY7C65211A-24LTXIT	66	CY7C68034-56LTXI	110	CY8C24994-24LTXI
23	CY7C65213-32LTXI	67	CY7C68300C-56LTXC	111	CY8C24994-24LTXIT
24	CY7C65213-32LTXIT	68	CY8C20324-12LQXI	112	CY8C3244LTI-130
25	CY7C65213A-32LTXI	69	CY8C20324-12LQXIT	113	CY8C3244LTI-130T
26	CY7C65213A-32LTXIT	70	CY8C20334-12LQXI	114	CY8C3245LTI-163
27	CY7C65215-32LTXI	71	CY8C20334-12LQXIT	115	CY8C3245LTI-163T
28	CY7C65215-32LTXIT	72	CY8C20336A-24LQXI	116	CY8C3246LTI-128
29	CY7C65215A-32LTXI	73	CY8C20336A-24LQXIT	117	CY8C3246LTI-128T
30	CY7C65215A-32LTXIT	74	CY8C20337-24LQXI	118	CY8C3246LTI-149
31	CY7C65217-24LTXI	75	CY8C20337-24LQXIT	119	CY8C3246LTI-149T
32	CY7C65217-24LTXIT	76	CY8C20346A-24LQXI	120	CY8C3445LTI-079
33	CY7C65217A-24LTXI	77	CY8C20346A-24LQXIT	121	CY8C3445LTI-079T
34	CY7C65217A-24LTXIT	78	CY8C20347S-24LQXI	122	CY8C3446LTI-085
35	CY7C65219-40LQXI	79	CY8C20347S-24LQXIT	123	CY8C3446LTI-085T
36	CY7C65219-40LQXIT	80	CY8C20396A-24LQXI	124	CY8C3665LTI-044
37	CY7C65221-24LTXI	81	CY8C20396A-24LQXIT	125	CY8C3665LTI-044T
38	CY7C65221-24LTXIT	82	CY8C20424-12LQXI	126	CY8C3666LTI-027
39	CY7C65620-56LTXC	83	CY8C20424-12LQXIT	127	CY8C3666LTI-027T
40	CY7C65620-56LTXCT	84	CY8C20434-12LQXI	128	CY8C3666LTI-201
41	CY7C65620-56LTXI	85	CY8C20434-12LQXIT	129	CY8C3666LTI-201T
42	CY7C65620-56LTXIT	86	CY8C20436A-24LQXI	130	CY8C3666LTI-203
43	CY7C65621-56LTXC	87	CY8C20436A-24LQXIT	131	CY8C3666LTI-203T
44	CY7C65621-56LTXCT	88	CY8C20437-24LQXI	132	CY8C3865LTI-014
Item	Marketing Part Number	Item	Marketing Part Number	Item	Marketing Part Number
133	CY8C3865LTI-014T	177	CY8C4125LQI-483	221	CY8C4146LQI-S432T
134	CY8C3866LTI-030	178	CY8C4125LQI-483T	222	CY8C4146LQI-S433

135	CY8C3866LTI-030T	179	CY8C4125LQI-S412	223	CY8C4146LQI-S433T
136	CY8C3866LTI-207	180	CY8C4125LQI-S412T	224	CY8C4244LQI-443
137	CY8C3866LTI-207T	181	CY8C4125LQI-S413	225	CY8C4244LQQ-443
138	CY8C4014LQI-412	182	CY8C4125LQI-S413T	226	CY8C4245LQQ-483
139	CY8C4014LQI-412T	183	CY8C4125LQI-S422	227	CY8C4245LTI-DM405
140	CY8C4014LQI-422	184	CY8C4125LQI-S422T	228	CY8C4245LTI-DM405T
141	CY8C4014LQI-422T	185	CY8C4125LQI-S423	229	CY8C4245LTI-M445
142	CY8C4024LQI-S401	186	CY8C4125LQI-S423T	230	CY8C4246LTI-DM405
143	CY8C4024LQI-S401T	187	CY8C4125LQI-S432	231	CY8C4246LTI-L445
144	CY8C4024LQI-S402	188	CY8C4125LQI-S432T	232	CY8C4246LTI-M445
145	CY8C4024LQI-S402T	189	CY8C4125LQI-S433	233	CY8C4246LTI-M475
146	CY8C4024LQI-S403	190	CY8C4125LQI-S433T	234	CY8C4247LQI-BL453
147	CY8C4024LQI-S403T	191	CY8C4125LQQ-483	235	CY8C4247LQI-BL453T
148	CY8C4024LQI-S411	192	CY8C4125LTI-M445	236	CY8C4247LQI-BL463
149	CY8C4024LQI-S411T	193	CY8C4126LTI-M445	237	CY8C4247LQI-BL463T
150	CY8C4024LQI-S412	194	CY8C4126LTI-M475	238	CY8C4247LQI-BL473
151	CY8C4024LQI-S412T	195	CY8C4127LQI-BL453	239	CY8C4247LQI-BL473T
152	CY8C4024LQI-S413	196	CY8C4127LQI-BL453T	240	CY8C4247LQI-BL483
153	CY8C4024LQI-S413T	197	CY8C4127LQI-BL473	241	CY8C4247LQI-BL483T
154	CY8C4025LQI-S401	198	CY8C4127LQI-BL473T	242	CY8C4247LQI-BL493
155	CY8C4025LQI-S401T	199	CY8C4127LQI-BL483	243	CY8C4247LQI-BL493T
156	CY8C4025LQI-S402	200	CY8C4127LQI-BL483T	244	CY8C4247LQQ-BL483
157	CY8C4025LQI-S402T	201	CY8C4127LQI-BL493	245	CY8C4247LQQ-BL483T
158	CY8C4025LQI-S411	202	CY8C4127LQI-BL493T	246	CY8C4247LTI-L445
159	CY8C4025LQI-S411T	203	CY8C4127LTI-M475	247	CY8C4247LTI-L475
160	CY8C4025LQI-S412	204	CY8C4128LQI-BL543	248	CY8C4247LTI-L485
161	CY8C4025LQI-S412T	205	CY8C4128LQI-BL543T	249	CY8C4247LTI-M475
162	CY8C4045LQI-S411	206	CY8C4128LQI-BL553	250	CY8C4247LTQ-L485
163	CY8C4045LQI-S411T	207	CY8C4128LQI-BL553T	251	CY8C4247LTQ-M475
164	CY8C4045LQI-S412	208	CY8C4128LQI-BL563	252	CY8C4248LQI-BL543
165	CY8C4045LQI-S412T	209	CY8C4128LQI-BL563T	253	CY8C4248LQI-BL543T
166	CY8C4124LQI-443	210	CY8C4128LQI-BL573	254	CY8C4248LQI-BL553
167	CY8C4124LQI-443T	211	CY8C4128LQI-BL573T	255	CY8C4248LQI-BL553T
168	CY8C4124LQI-S412	212	CY8C4128LQI-BL583	256	CY8C4248LQI-BL563
169	CY8C4124LQI-S412T	213	CY8C4128LQI-BL583T	257	CY8C4248LQI-BL563T
170	CY8C4124LQI-S413	214	CY8C4128LQI-BL593	258	CY8C4248LQI-BL573
171	CY8C4124LQI-S413T	215	CY8C4128LQI-BL593T	259	CY8C4248LQI-BL573T
172	CY8C4124LQI-S432	216	CY8C4146LQI-S422	260	CY8C4248LQI-BL583
173	CY8C4124LQI-S432T	217	CY8C4146LQI-S422T	261	CY8C4248LQI-BL583T
174	CY8C4124LQI-S433	218	CY8C4146LQI-S423	262	CY8C4248LQI-BL593
175	CY8C4124LQI-S433T	219	CY8C4146LQI-S423T	263	CY8C4248LQI-BL593T
176	CY8C4124LQQ-443	220	CY8C4146LQI-S432	264	CY8C4248LQQ-BL583
Item	Marketing Part Number	Item	Marketing Part Number	Item	Marketing Part Number
265	CY8C4248LQQ-BL583T	309	CYPD3121-40LQXIT	353	CYUSB2302-68LTXIT
266	CY8C4248LTI-L475	310	CYPD3122-40LQXI	354	CYUSB2304-68LTXI
267	CY8C4248LTI-L485	311	CYPD3122-40LQXIT	355	CYUSB2304-68LTXIT
268	CY8C4248LTQ-L485	312	CYPD3123-40LQXI	356	CYUSB3302-68LTXC
269	CY8C4724LQI-S401	313	CYPD3123-40LQXIT	357	CYUSB3302-68LTXCT

270	CY8C4725LQI-S401	314	CYPD3125-40LQXI	358	CYUSB3302-68LTXI
271	CY8C4744LQI-S401	315	CYPD3125-40LQXIT	359	CYUSB3302-68LTXIT
272	CY8C4745LQI-S401	316	CYPD3135-32LQXQ	360	CYUSB3304-68LTXC
273	CY8C4745LQI-S411	317	CYPD3135-32LQXQT	361	CYUSB3304-68LTXCT
274	CY8C5267LTI-LP089	318	CYPD3135-40LQXI	362	CYUSB3304-68LTXI
275	CY8C5268LTI-LP030	319	CYPD3135-40LQXIT	363	CYUSB3304-68LTXIT
276	CY8C5288LTI-LP090	320	CYPD3135-40LQXQ	364	CG6897DS
277	CY8C5467LTI-LP003	321	CYPD3135-40LQXQT	365	CG6897DST
278	CY8C5468LTI-LP026	322	CYPD3171-24LQXQ	366	CG7153AM
279	CY8C5666LTI-LP005	323	CYPD3171-24LQXQT	367	CG7153AMT
280	CY8C5667LTI-LP009	324	CYPD3174-24LQXQ	368	CG7158DM
281	CY8C5667LTI-LP041	325	CYPD3174-24LQXQT	369	CG7158DMT
282	CY8C5668LTI-LP014	326	CYPD3175-24LQXQ	370	CG7243AMT
283	CY8C5688LTI-LP086	327	CYPD3175-24LQXQT	371	CG7297AM
284	CY8C5866LTI-LP022	328	CYPD3177-24LQXQ	372	CG7297AMT
285	CY8C5867LTI-LP025	329	CYPD3177-24LQXQT	373	CG7392AM
286	CY8C5867LTI-LP028	330	CYPD4125-40LQXI	374	CG7392AMT
287	CY8C5868LTI-LP038	331	CYPD4125-40LQXIT	375	CG7496AA
288	CY8C5868LTI-LP039	332	CYPD4126-24LQXI	376	CG7496AAT
289	CY8C5888LTI-LP097	333	CYPD4126-24LQXIT	377	CG7558AA
290	CY8C5888LTQ-LP097	334	CYPD4126-40LQXI	378	CG7558AAT
291	CY8CMBR2110-24LQXI	335	CYPD4126-40LQXIT	379	CG7606AA
292	CY8CMBR2110-24LQXIT	336	CYPD4136-24LQXI	380	CG7606AAT
293	CY8CMBR3106S-LQXI	337	CYPD4136-24LQXIT	381	CG7680AA
294	CY8CMBR3106S-LQXIT	338	CYPD4225-40LQXI	382	CG7680AAT
295	CY8CMBR3116-LQXI	339	CYPD4225-40LQXIT	383	CG7753AA
296	CY8CMBR3116-LQXIT	340	CYPD4226-40LQXI	384	CG7786AA
297	CYPD1122-40LQXI	341	CYPD4226-40LQXIT	385	CG7786AAT
298	CYPD2119-24LQXI	342	CYPD4236-40LQXI	386	CG7788AA
299	CYPD2119-24LQXIT	343	CYPD4236-40LQXIT	387	CG7788AAT
300	CYPD2120-24LQXI	344	CYPD5125-40LQXI	388	CG7973AA
301	CYPD2122-24LQXI	345	CYPD5125-40LQXIT	389	CG7973AAT
302	CYPD2122-24LQXIT	346	CYSHM35925I-M068LTI	390	CG8080AM
303	CYPD2134-24LQXI	347	CYSHM35925I-M068LTIT	391	CG8349AT
304	CYPD2134-24LQXIT	348	CYSHM35926P-L068LTI	392	CG8349ATT
305	CYPD2134-24LQXQT	349	CYSHM35926P-L068LTIT	393	CG8352AF
306	CYPD3120-40LQXI	350	CYTR21100-44LQI28	394	CG8352AFT
307	CYPD3120-40LQXIT	351	CYTR21100-44LQI28T	395	CG8360AM
308	CYPD3121-40LQXI	352	CYUSB2302-68LTXI	396	CG8360AMT
Item	Marketing Part Number	Item	Marketing Part Number	Item	Marketing Part Number
397	CG8382BF	441	CP8568ATT	485	CP8913ATT
398	CG8382BFT	442	CP8570AT	486	CP8923AT
399	CG8454AM	443	CP8570ATT	487	CP8923ATT
400	CG8454AMT	444	CP8627BT	488	CP8924AT
401	CG8576AA	445	CP8627BTT	489	CP8924ATT
402	CG8577AA	446	CP8628CT	490	CP8928AT
403	CG8581AA	447	CP8628CTT	491	CP8928ATT
404	CG8581AAT	448	CP8642AT	492	CP8935AT

405	CG8671AA	449	CP8642ATT	493	CP8935ATT
406	CG8671AAT	450	CP8654BT	494	CP8937AT
407	CG8672AA	451	CP8654BTT	495	CP8937ATT
408	CG8672AAT	452	CP8654CT	496	CP8940AT
409	CG8751AF	453	CP8654CTT	497	CP8940ATT
410	CG8751AFT	454	CP8658AT	498	CS6651DA
411	CG8765AF	455	CP8658ATT	499	CS6651DAT
412	CG8851AF	456	CP8666AT	500	CS6651JA
413	CG8871AF	457	CP8666ATT	501	CS6651JAT
414	CG8925AF	458	CP8666BT	502	CS7223AA
415	CG8925AFT	459	CP8666BTT	503	CS7224AA
416	CG8972AF	460	CP8688AT	504	CS7224AAT
417	CG8972AFT	461	CP8688ATT	505	CS7275AA
418	CG8973AF	462	CP8688BT	506	CS7453ATT
419	CG8973AFT	463	CP8688BTT	507	CS8537AA
420	CG8974AF	464	CP8691AT	508	CS8537AAT
421	CG8974AFT	465	CP8691ATT	509	CS8572AA
422	CG8989AF	466	CP8742AT	510	CS8572AAT
423	CG8989AFT	467	CP8742ATT	511	CS8590AM
424	CG9022AM	468	CP8787AT	512	CS8590AMT
425	CG9022AMT	469	CP8788AT	513	CS8750AM
426	CP7349AT	470	CP8788ATT	514	CS8750AMT
427	CP7349ATT	471	CP8814AT	515	CS8807AM
428	CP7949AT	472	CP8814ATT	516	CS8807AMT
429	CP7949ATT	473	CP8815AT	517	CS8808AM
430	CP7950AT	474	CP8815ATT	518	CS8808AMT
431	CP7950ATT	475	CP8820AT		
432	CP8151AT	476	CP8820ATT		
433	CP8151ATT	477	CP8849AT		
434	CP8363AT	478	CP8849ATT		
435	CP8363ATT	479	CP8864AT		
436	CP8380AT	480	CP8900AT		
437	CP8380ATT	481	CP8900ATT		
438	CP8483DT	482	CP8900BT		
439	CP8483DTT	483	CP8900BTT		
440	CP8568AT	484	CP8913AT		