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

PRODUCT CHANGE NOTIFICATION

PCN: PCN162401A **Date:** February 02, 2017

Subject: Addendum to PCN162401: 4Mb / 2Mb FAST and 4Mb Micropower (MoBL®) Automotive Asynchronous SRAM Products: Technology Transition to 65-nanometer Technology

To: JAMIE PEDERSON
DIGIKEY
digiKey.supplierInfo@digikey.com

Change Type: Major

Description of Change:
The purpose of this addendum is to remove below listed 26 MPNs in the 'Affected Part List' file. The 26 removed MPNs will be obsoleted through a Product Termination Notice (PTN) notice. The LTB and LTS dates remain the same for all MPNs. Please refer to the attached 'Affected Parts List' file for the corrected list of MPNs.

Marketing Part Number	Marketing Part Number
CY62147EV30LL-45B2XA	CY7C1049CV33-10VXAT
CY62147EV30LL-45B2XAT	CY7C1049CV33-12ZSXA
CY62148ELL-45ZSXA	CY7C1049CV33-12ZSXAT
CY62148ELL-45ZSXAT	CY7C1049CV33-15VXE
CY62148ELL-55SXA	CY7C1049CV33-15VXET
CY62148ELL-55SXAT	CY7C1049CV33-15ZSXE
CY62148ESL-55ZAXA	CY7C1049CV33-15ZSXET
CY62148ESL-55ZAXAT	CG8233AA
CY62148EV30LL-45ZSXA	CG8233AAT
CY62148EV30LL-45ZSXAT	CG8305AA
CY62148EV30LL-55ZSXE	CG8305AAT
CY62148EV30LL-55ZSXET	CG8322AA
CY7C1049CV33-10VXA	CG8322AAT

Cypress is pleased to announce the transition of 4Mb / 2Mb FAST® and 4Mb Micropower (MoBL®) automotive Asynchronous SRAMs from the 150-nanometer and 90-nanometer technology nodes to the 65-nanometer technology node at our partner fab United Micro Electronics Corporation (UMC) in Tainan, Taiwan. This change is consistent with Cypress's history of line-width reduction.

Cypress will be discontinuing the 4Mb / 2Mb FAST® and 4Mb Micropower (MoBL®) automotive Asynchronous SRAM 150-nanometer and 90-nanometer products. The new 65-nanometer products are drop-in replacement parts and form, fit and function compatible with the older technology products. The list of affected part numbers, replacement part numbers, next best alternatives, Last Time Buy (LTB) and Last Time Ship (LTS) dates are provided in the attached "Affected Parts List" file. However, we urge adoption of the new part numbers as early as possible, in order to benefit from the much higher levels of reliability for automotive applications.

Datasheets and models for both the old and the new part numbers can be downloaded from the Cypress Website (www.cypress.com).

Benefit of Change:
65-nanometer 4Mb / 2Mb FAST® and 4Mb Micropower (MoBL®) automotive Asynchronous SRAM devices use 38- and 32-bit Hamming Codes for single-bit error detection and correction. A hardware ECC block performs all ECC-related functions in line, without user intervention and without affecting access-time performance. The single-bit error detection and correction capability is supplemented by an 8-bit interleaving scheme to prevent the occurrence of multi-bit errors. Together, these features provide very significant improvement in Soft Error Rate (SER) performance, resulting in FIT rates less than 0.1 FIT/Mbit, as well as protection against hard single-bit errors as well.

Migration to the 65-nanometer technology will result in very much improved product reliability.

Affected Part Numbers: 55
Affected Parts: Please refer to attached 'Affected Parts List' file.

Qualification Status:
The 65-nanometer products have been qualified through a series of tests identified in Qualification Test Plan (QTP) Report 150408. The QTP report can be found as an attachment to this notification or by visiting 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 refer to the attached 'Affected Parts List' file for the list of older technology parts and their corresponding 65-nanometer replacement parts. If you require qualification samples, please contact your sales representative as soon as possible, but within 30 days of the date of this PCN.

Approximate Implementation Date:
4Mb / 2Mb FAST® 150-nanometer parts and 4Mb Micropower (MoBL®) 90-nanometer parts listed in the attached 'Affected Parts List' file are subject to End of Life (EOL) with Last Time Buy (LTB) and Last Time Ship (LTS) dates. Please refer to the attached file for the LTB/LTS dates.

Anticipated Impact:
The 65-nanometer products are completely compatible with existing products from a functional, parametric, quality and reliability performance perspective, however the customer will need to update their ordering process for the 65-nanometer ordering part numbers as found in the attached 'Affected Parts List' file.

Cypress also recommends that customers take this opportunity to review the product datasheet and any applicable application notes against their system design and environment conditions to assess any impact to their application.

Method of Identification:
The letter “G” affixed after the base part number designates the 65-nanometer technology with ECC functionality. For example, the 150-nanometer 4Mb FAST® Asynchronous SRAM part CY7C1041CV33-10ZSXA will be replaced by the following 65-nanometer part: CY7C1041G30-10ZSXA

Cypress maintains traceability of product to wafer level, including wafer fabrication location, through the lot number marked on the package. Please refer to www.cypress.com/products for datasheets and a complete listing of the 65-nanometer Asynchronous SRAM Products.

Response Required: No Response is required. The LTB and LTS dates remain the same for all MPNs. Please refer to the attached ‘Affected Parts List’ file for the corrected list of MPNs.

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	Product Family	Last Time Buy Date	Last Time Ship Date	Replacement Part Number (65nm)	Next Best Alternative (65nm)
1	CY62146ELL-45ZSXA	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62146G-45ZSXA	
2	CY62146ELL-45ZSXAT	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62146G-45ZSXAT	
3	CY62146EV30LL-45ZSXA	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62146G30-45ZSXA	
4	CY62146EV30LL-45ZSXAT	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62146G30-45ZSXAT	
5	CY621472E30LL-45ZSXA	MPWR-4Mb	5-Jul-17	2-Jul-18	CY621472G30-45ZSXA	
6	CY621472E30LL-45ZSXAT	MPWR-4Mb	5-Jul-17	2-Jul-18	CY621472G30-45ZSXAT	
7	CY62147EV30LL-45BVXA	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62147G30-45BVXA	
8	CY62147EV30LL-45BVXAT	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62147G30-45BVXAT	
9	CY62147EV30LL-45ZSXA	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62147G30-45ZSXA	
10	CY62147EV30LL-45ZSXAT	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62147G30-45ZSXAT	
11	CY62147EV30LL-55ZSXE	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62147G30-55ZSXE	
12	CY62147EV30LL-55ZSXET	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62147G30-55ZSXET	
13	CY7C1011CV33-10BAJXE	FAST-2Mb	5-Jul-17	2-Jul-18	CY7C1011G30-10BAJXE	
14	CY7C1011CV33-10BAJXET	FAST-2Mb	5-Jul-17	2-Jul-18	CY7C1011G30-10BAJXET	
15	CY7C1011CV33-10ZSXA	FAST-2Mb	5-Jul-17	2-Jul-18	CY7C1011G30-10ZSXA	
16	CY7C1011CV33-10ZSXAT	FAST-2Mb	5-Jul-17	2-Jul-18	CY7C1011G30-10ZSXAT	
17	CY7C1011CV33-12ZSXE	FAST-2Mb	5-Jul-17	2-Jul-18	CY7C1011G30-12ZSXE	
18	CY7C1011CV33-12ZSXET	FAST-2Mb	5-Jul-17	2-Jul-18	CY7C1011G30-12ZSXET	
19	CY7C1041CV33-10BAJXE	FAST-4Mb	5-Jul-17	2-Jul-18	CY7C1041G30-10BAJXE	
20	CY7C1041CV33-10BAJXET	FAST-4Mb	5-Jul-17	2-Jul-18	CY7C1041G30-10BAJXET	
21	CY7C1041CV33-10BAXA	FAST-4Mb	5-Jul-17	2-Jul-18	Not Available	CY7C1041G30-10BAJXE
22	CY7C1041CV33-10BAXAT	FAST-4Mb	5-Jul-17	2-Jul-18	Not Available	CY7C1041G30-10BAJXET
23	CY7C1041CV33-10BAXE	FAST-4Mb	5-Jul-17	2-Jul-18	Not Available	CY7C1041G30-10BAJXE
24	CY7C1041CV33-10BAXET	FAST-4Mb	5-Jul-17	2-Jul-18	Not Available	CY7C1041G30-10BAJXET
25	CY7C1041CV33-10ZSXA	FAST-4Mb	5-Jul-17	2-Jul-18	CY7C1041G30-10ZSXA	
26	CY7C1041CV33-10ZSXAT	FAST-4Mb	5-Jul-17	2-Jul-18	CY7C1041G30-10ZSXAT	
27	CY7C1041CV33-12BAXE	FAST-4Mb	5-Jul-17	2-Jul-18	Not Available	CY7C1041G30-10BAJXE
28	CY7C1041CV33-12BAXET	FAST-4Mb	5-Jul-17	2-Jul-18	Not Available	CY7C1041G30-10BAJXET
29	CY7C1041CV33-12ZSXE	FAST-4Mb	5-Jul-17	2-Jul-18	Not Available	CY7C1041G30-10ZSXE
30	CY7C1041CV33-12ZSXET	FAST-4Mb	5-Jul-17	2-Jul-18	Not Available	CY7C1041G30-10ZSXET
31	CY7C1041CV33-20VXE	FAST-4Mb	5-Jul-17	2-Jul-18	Not Available	CY7C1041G30-10ZSXE
32	CY7C1041CV33-20VXET	FAST-4Mb	5-Jul-17	2-Jul-18	Not Available	CY7C1041G30-10ZSXET
33	CY7C1041CV33-20ZSXA	FAST-4Mb	5-Jul-17	2-Jul-18	Not Available	CY7C1041G30-10ZSXA
34	CY7C1041CV33-20ZSXAT	FAST-4Mb	5-Jul-17	2-Jul-18	Not Available	CY7C1041G30-10ZSXAT
35	CY7C1041CV33-20ZSXE	FAST-4Mb	5-Jul-17	2-Jul-18	Not Available	CY7C1041G30-10ZSXE
36	CY7C1041CV33-20ZSXET	FAST-4Mb	5-Jul-17	2-Jul-18	Not Available	CY7C1041G30-10ZSXET
37	CG7913AT	FAST-2Mb	5-Jul-17	2-Jul-18	Not Available	CY7C1011G30-12ZSXE
38	CG8223AA	FAST-4Mb	5-Jul-17	2-Jul-18	CY7C1041G30-10ZSXA	
39	CG8223AAT	FAST-4Mb	5-Jul-17	2-Jul-18	CY7C1041G30-10ZSXAT	
40	CG8231AA	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62146G30-45ZSXA	
41	CG8231AAT	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62146G30-45ZSXAT	
42	CG8232AA	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62147G30-45ZSXA	
43	CG8232AAT	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62147G30-45ZSXAT	
44	CG8289AA	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62147G30-45BVXA	
45	CG8289AAT	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62147G30-45BVXAT	
46	CG8294AA	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62147G30-45ZSXA	
47	CG8294AAT	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62147G30-45ZSXAT	
48	CG8295AA	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62146G30-45ZSXA	
49	CG8295AAT	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62146G30-45ZSXAT	
50	CG8296AA	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62147G30-55ZSXE	
51	CG8296AAT	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62147G30-55ZSXET	
52	CG8309AA	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62146G-45ZSXA	
53	CG8309AAT	MPWR-4Mb	5-Jul-17	2-Jul-18	CY62146G-45ZSXAT	
54	CG8359AA	FAST-4Mb	5-Jul-17	2-Jul-18	CY7C1041G30-10ZSXA	
55	CG8359AAT	FAST-4Mb	5-Jul-17	2-Jul-18	CY7C1041G30-10ZSXAT	