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## PRODUCT INFORMATION NOTIFICATION

**PIN:** PIN135228

**Date:** August 30, 2013

**Subject:** Changes to F-RAM Marking to Align with Cypress Standards

**To**

DIGIKEY  
digiKey.supplierInfo@digikey.com

**Change Type:** Minor

### **Description of Change:**

Cypress Semiconductor has completed the integration of Ramtron products into Cypress systems. The purpose of the PIN is to communicate changes to the F-RAM package top markings. There are no changes to the ordering part numbers or the color of the markings.

- 1) All F-RAM package markings have been modified for Cypress assembly lot tracking.
- 2) Several F-RAM packages have font size changes.
- 3) When applicable the Ramtron logo has been replaced by the Cypress logo and the RIC ("Ramtron IC") letters have been replaced by CYP ("Cypress") letters.

The full detail of each package change is shown in the attached "F-RAM Marking Changes" document.

In the earlier Cypress PIN number 135208 (dated April 2, 2013), 30 F-RAM part numbers were affected by an earlier marking change. This PIN expands the affected parts list from the 30 part numbers to all 162 part numbers shown in the attached Affected Parts list. The earlier 30 part numbers are now covered by this PIN.

**Product Information:** The "F-RAM Marking Changes" document attached shows the package marking changes for all F-RAM packages available from Cypress.

**Affected Parts:** 162

See attached list of affected parts.

**Qualification Status:**

Not Applicable

**Approximate Implementation Date:**

These changes will be fully implemented for all packages by date code WW1343. For some part numbers Cypress has existing inventory that uses the earlier top marks. Until this inventory is depleted, products with the old top marking with date codes earlier than WW1343 will continue to ship. In some cases, products with both old top mark and new top mark may be shipped together.

**Anticipated Impact:**

There have been no changes to manufacturing processes or sites for F-RAM products. Cypress recommends that customers take this opportunity to review these changes against current application notes, system design considerations, logistics and customer environment conditions to assess impact (if any) to their application.

**Method of Identification:** Please see the attachments.

**Response Required:**

This is an information only announcement. 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](mailto:pcn_adm@cypress.com).

Sincerely,

Cypress PCN Administration

Item	Affected Marketing Parts	
1	CG7738AT	
2	CG7738ATT	
3	CG7767AA	
4	CG7767AAT	
5	CG7846AA	
6	CG7846AAT	
7	CG7847AA	
8	CG7847AAT	
9	FM1608B-PG	Note 1
10	FM1608B-SG	
11	FM1608B-SGTR	
12	FM16W08-PG	
13	FM16W08-SG	
14	FM16W08-SGTR	
15	FM1808B-PG	
16	FM1808B-SG	
17	FM1808B-SGTR	
18	FM18W08-PG	Note 1
19	FM18W08-SG	
20	FM18W08-SGTR	
21	FM21L16-60-TG	
22	FM21L16-60-TGTR	
23	FM21LD16-60-BG	
24	FM21LD16-60-BGTR	
25	FM22L16-55-TG	
26	FM22L16-55-TGTR	
27	FM22LD16-55-BG	
28	FM22LD16-55-BGTR	
29	FM23MLD16-60-BG	
30	FM23MLD16-60-BGTR	
31	FM24C04B-G	
32	FM24C04B-G2	
33	FM24C04B-G2TR	
34	FM24C04B-GTR	
35	FM24C16B-G	
36	FM24C16B-G1	Note 1
37	FM24C16B-G1TR	Note 1
38	FM24C16B-GTR	
39	FM24C64B-G	
40	FM24C64B-GTR	
41	FM24CL04B-G	
42	FM24CL04B-GTR	
43	FM24CL16B-DG	
44	FM24CL16B-DGTR	
45	FM24CL16B-G	
46	FM24CL16B-GTR	


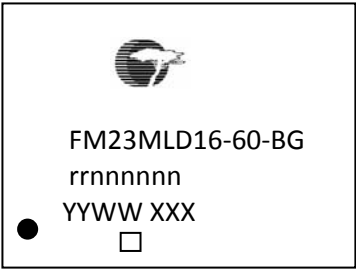
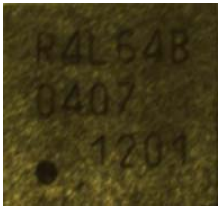
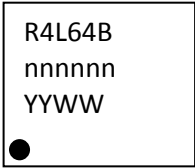

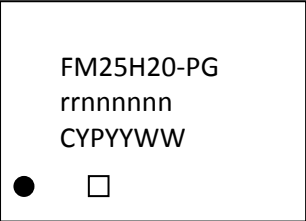
Item	Affected Marketing Parts	
81	FM25C160B-G5	
82	FM25C160B-G5TR	
83	FM25C160B-GA	
84	FM25C160B-GA1	Note 1
85	FM25C160B-GA1TR	Note 1
86	FM25C160B-GATR	
87	FM25C160B-GTR	
88	FM25CL64B-DG	
89	FM25CL64B-DGTR	
90	FM25CL64B-G	Note 1
91	FM25CL64B-G2	
92	FM25CL64B-G5	
93	FM25CL64B-G5TR	
94	FM25CL64B-GA	Note 1
95	FM25CL64B-GATR	Note 1
96	FM25CL64B-GTR	Note 1
97	FM25H20-DG	
98	FM25H20-DGTR	
99	FM25H20-G	
100	FM25H20-GTR	
101	FM25H20-PG	Note 1
102	FM25L04B-DG	
103	FM25L04B-DGTR	
104	FM25L04B-G	
105	FM25L04B-GA	Note 1
106	FM25L04B-GA4	
107	FM25L04B-GA4TR	
108	FM25L04B-GATR	Note 1
109	FM25L04B-GTR	
110	FM25L16B-DG	
111	FM25L16B-DGTR	
112	FM25L16B-G	
113	FM25L16B-G3	Note 1
114	FM25L16B-G3TR	Note 1
115	FM25L16B-GTR	
116	FM25V01-G	Note 1
117	FM25V01-GTR	Note 1
118	FM25V02-DG	
119	FM25V02-DGTR	
120	FM25V02-G	
121	FM25V02-G1TR	
122	FM25V02-GTR	
123	FM25V02-PG	
124	FM25V05-G	
125	FM25V05-GTR	
126	FM25V05-PGC	





47	FM24CL64B-DG	
48	FM24CL64B-DGTR	
49	FM24CL64B-G	
50	FM24CL64B-GA	Note 1
51	FM24CL64B-GATR	Note 1
52	FM24CL64B-GTR	
53	FM24V01-G	Note 1
54	FM24V01-GTR	Note 1
55	FM24V02-G	
56	FM24V02-GTR	
57	FM24V02-PG	
58	FM24V05-G	Note 1
59	FM24V05-GTR	Note 1
60	FM24V10-G	
61	FM24V10-GTR	
62	FM24VN10-G	
63	FM24VN10-GTR	
64	FM24W256-EG	
65	FM24W256-EGTR	
66	FM24W256-G	Note 1
67	FM24W256-GTR	Note 1
68	FM25040B-G	
69	FM25040B-GA	
70	FM25040B-GA1	Note 1
71	FM25040B-GA1TR	Note 1
72	FM25040B-GATR	
73	FM25040B-GTR	
74	FM25640B-G	
75	FM25640B-G2	Note 1
76	FM25640B-G2TR	Note 1
77	FM25640B-GA	
78	FM25640B-GATR	
79	FM25640B-GTR	
80	FM25C160B-G	


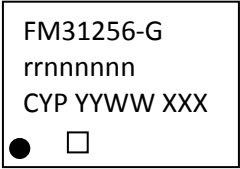

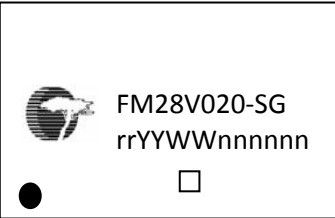

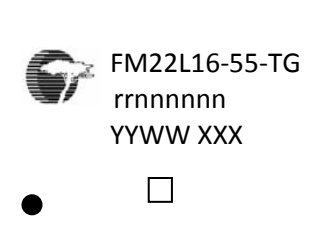
127	FM25V10-G	
128	FM25V10-GTR	
129	FM25V20-DG	
130	FM25V20-DGTR	
131	FM25V20-G	
132	FM25V20-GTR	
133	FM25V20-PG	Note 1
134	FM25VN10-G	
135	FM25VN10-GTR	
136	FM25W256-G	
137	FM25W256-GTR	
138	FM28V020-SG	
139	FM28V020-SGTR	
140	FM28V020-T28G	
141	FM28V020-TG	
142	FM28V020-TGTR	
143	FM28V100-TG	
144	FM28V100-TGTR	
145	FM28V202-TG	
146	FM28V202-TGTR	
147	FM31256-G	
148	FM31256-G1	
149	FM31256-G1TR	
150	FM31256-GTR	
151	FM31276-G	
152	FM31276-GTR	
153	FM31278-G	
154	FM31278-GTR	
155	FM3164-G	
156	FM3164-GTR	
157	FM31L276-G	
158	FM31L276-GTR	
159	FM31L278-G	
160	FM31L278-GTR	
161	FM33256B-G	
162	FM33256B-GTR	





Note 1: These part numbers were first listed in Cypress PIN135208. They are included again here to provide a complete list of affected parts.

## Marking Changes for Cypress F-RAM Products

Package Code (part of MPN)	Package	RAMTRON OLD MARKING	CYPRESS NEW MARKING	Definition of New Marking
BG	48-FBGA			<p><u>Top:</u> Change RAMTRON logo to Cypress logo</p> <p><u>Row1:</u> Marketing PN - no change</p> <p><u>Row2:</u> <b>rrnnnnn</b> where <b>rr</b>-BE Part rev Code (can be 1 or 2 characters), <b>nnnnnn</b> - Cy assembly lot#</p> <p><u>Row3:</u> <b>YYWW</b> - Date Code, <b>XXX</b> – Country of origin</p> <p><b>Square Mark</b> - Lead free designator</p>
DG	8-DFN			<p><u>Row1:</u> Truncated Marketing PN - No change</p> <p><u>Row2:</u> <b>nnnnnn</b> - Cy assembly lot#</p> <p><u>Row3:</u> <b>YYWW</b> - Date Code</p> <p>➤ 3x3mm 8 lead TDFN will NOT have square mark</p>
PG	8-PDIP			<p>No Ramtron Logo</p> <p><u>Row1:</u> Marketing PN - no change</p> <p><u>Row2:</u> <b>rrnnnnnn</b> where : <b>rr</b> - BE Part Rev Code (can be 1 or 2 characters), <b>nnnnnn</b> - Cy assembly lot#</p> <p><u>Row3:</u> <b>CYPYYWW</b> – where <b>CYP</b> - Cypress, <b>YYWW</b>- Date Code</p> <p><b>Square Mark</b> - Lead free designator</p>

Package Code (part of MPN)	Package	RAMTRON OLD MARKING	CYPRESS NEW MARKING	Definition of New Marking
PG	28-PDIP		 <p data-bbox="915 363 1108 423">FM1608B-PG rrYYWWnnnnnn</p> <p data-bbox="821 440 1003 472">● □</p>	<p data-bbox="1178 269 1646 297">Change RAMTRON logo to Cypress logo</p> <p data-bbox="1178 305 1566 332"><u>Row1:</u> Marketing PN - no change</p> <p data-bbox="1178 341 1963 401"><u>Row2:</u> rrYYWWnnnnnn where: rr - BE Part Rev Code (can be 1 or 2 characters) , YYWW - Date Code, nnnnnn - Cy assembly lot#</p> <p data-bbox="1178 409 1598 436"><b>Square mark</b> - Lead free designator</p>
EG	8-EIAJ		<p data-bbox="877 659 1020 756">FM24V01-G rrnnnnnn CYPYYWW</p> <p data-bbox="852 773 940 805">● □</p>	<p data-bbox="1178 602 1566 630"><u>Row1:</u> Marketing PN - no change</p> <p data-bbox="1178 638 1871 698"><u>Row2:</u> rrnnnnnn where; rr-BE Part rev Code (can be 1 or 2 characters), nnnnnn - Cy assembly lot#</p> <p data-bbox="1178 706 1902 734"><u>Row3:</u> CYPYYWW – where CYP - Cypress, YYWW - Date Code</p> <p data-bbox="1178 742 1598 769"><b>Square mark</b> - Lead free designator</p>
G	8-SOIC		<p data-bbox="863 899 1010 997">FM24V01-G rrnnnnnn CYPYYWW</p> <p data-bbox="852 1013 926 1045">● □</p>	<p data-bbox="1178 889 1566 917"><u>Row1:</u> Marketing PN - no change</p> <p data-bbox="1178 925 1896 985"><u>Row2:</u> rrnnnnnn where: rr - BE Part Rev Code (can be 1 or 2 characters), nnnnnn- Cy assembly lot# n</p> <p data-bbox="1178 993 1896 1021"><u>Row3:</u> CYPYYWW – where CYP - Cypress, YYWW- Date Code</p> <p data-bbox="1178 1029 1598 1057"><b>Square Mark</b> - Lead free designator</p>

Package Code (part of MPN)	Package	RAMTRON OLD MARKING	CYPRESS NEW MARKING	Definition of New Marking
G	14-SOIC			<p>Row1: Marketing PN - no change  Row2: <b>rrnnnnnn</b> where : <b>rr</b> - BE Part Rev Code (can be 1 or 2 characters), <b>nnnnnn</b>- Cy assembly lot#  Row3: <b>CYP</b> - Cypress, <b>YYWW</b>- Date Code , <b>XXX</b>– Country of origin  <b>Square Mark</b> - Lead free designator</p>
SG	28-SOIC			<p>Change RAMTRON logo to Cypress logo  Row1: Marketing PN - no change  Row2: <b>rrYYWWnnnnnn</b> where : <b>rr</b> - BE Part Rev Code (can be 1 or 2 characters), <b>YYWW</b> - Date Code, <b>nnnnnn</b>- Cy assembly lot#  <b>Square Mark</b> - Lead free designator</p>
TG	44-TSOPII			<p>Change RAMTRON logo to Cypress logo  Row1: Marketing PN - no change (new font height = 0.6mm)*  Row2: <b>rrnnnnnn</b> where <b>rr</b>-BE Part rev Code (can be 1 or 2 characters), <b>nnnnnn</b> - Cy assembly lot (new font height = 0.6mm)*  Row3: <b>YYWW</b> - Date Code, <b>XXX</b>-Country of origin (new font height = 0.6mm)*  <b>Square Mark</b> - Lead free designator</p>

Package Code (part of MPN)	Package	RAMTRON OLD MARKING	CYPRESS NEW MARKING	Definition of New Marking
T28G	28-TSOP I	 <p>RAMTRON FM28V020-T28G A1423852T28G1 1125 TAIWAN</p>	 <p>FM28V020-T28G rrnnnnnn YYWW XXX □</p>	<p>Change RAMTRON logo to Cypress logo  <u>Row1:</u> Marketing PN same - no change  <u>Row2:</u> <b>rrnnnnnn</b> where <b>rr</b>-BE Part rev Code (can be 1 or 2 characters), <b>nnnnnn</b> - Cy assembly lot#  <u>Row2:</u> <b>YYWW</b> - Date Code, <b>XXX</b>-Country of origin  <b>Square Mark</b> - Lead free designator</p>
TG	32-TSOP I	 <p>RAMTRON FM28V020-TG A1423852TG1 1125 TAIWAN</p>	 <p>FM28V020-TG rrnnnnnn YYWW XXX □</p>	<p>Change RAMTRON logo to Cypress logo  <u>Row1:</u> Marketing PN same - no change (new font height = 0.6mm)  <u>Row2:</u> <b>rrnnnnnn</b> where <b>rr</b>-BE Part rev Code (can be 1 or 2 characters), <b>nnnnnn</b> - Cy assembly lot (new font height = 0.6mm)  <u>Row3:</u> <b>YYWW</b> - Date Code, <b>XXX</b>-Country of origin (new font height = 0.6mm)*  <b>Square Mark</b> - Lead free designator</p>

\* The new font height change mentioned is now implemented on 32L TSOP I and 44L TSOP II.