

*MCF528x and  
MCF5214/6  
RAM Test Inadequacy  
Alert*

# RAM Test Inadequacy

- Freescale has discovered a test inadequacy in the SRAM, CACHE, and CACHE TAG for MPN MCF528x and MCF5214/6 (complete parts list below):

MCF5280CVF66	MCF5280CVM66
MCF5280CVF80	MCF5280CVM80
MCF5281CVF66	MCF5281CVM66
MCF5281CVF80	MCF5281CVM80
MCF5282CVF66	MCF5282CVM66
MCF5282CVF80	MCF5282CVM80
MCF5214CVF66	MCF5214CVM66
MCF5216CVF66	MCF5216CVM66

- This could result in delivered product exhibiting RAM failures at a maximum failure rate estimated at 2%, based on fallout from test of devices in inventory.
- We do not expect the performance or reliability of affected units to degrade with time.

# Identifying and Handling RAM Failures

- All units not assembled in an application may be shipped backed to Freescale for rescreening and/or replacement. Pre-programmed flash content will not be conserved under normal circumstances as product will be replaced with rescreened or new product on a first in/first out basis.
  - Use Freescale's RMR process through the distributor who supplied the parts for all returns
  - Direct customers should contact Freescale Customer Service Advocate to use RMR process directly
  - Customer may also choose to compare test code on the web with their own in-line testing to decide if they need to have the devices rescreened. If a customer is sufficiently testing the RAM in their own test procedure, it is likely that they may have pre-screened any potential RAM failure
- Units that are assembled in an application can be tested using the test code located on all MCF5214, MCF5216, and MCF528x web pages:
  - MCF5282:  
[http://www.freescale.com/webapp/sps/site/prod\\_summary.jsp?code=MCF5282&nodeId=018rH3YTLC00M9](http://www.freescale.com/webapp/sps/site/prod_summary.jsp?code=MCF5282&nodeId=018rH3YTLC00M9)
  - MCF5281:  
[http://www.freescale.com/webapp/sps/site/prod\\_summary.jsp?code=MCF5281&nodeId=018rH3YTLC00M9](http://www.freescale.com/webapp/sps/site/prod_summary.jsp?code=MCF5281&nodeId=018rH3YTLC00M9)
  - MCF5280:  
[http://www.freescale.com/webapp/sps/site/prod\\_summary.jsp?code=MCF5280&nodeId=018rH3YTLC00M9](http://www.freescale.com/webapp/sps/site/prod_summary.jsp?code=MCF5280&nodeId=018rH3YTLC00M9)
  - MCF5216:  
[http://www.freescale.com/webapp/sps/site/prod\\_summary.jsp?code=MCF5216&nodeId=018rH3YTLC00M9](http://www.freescale.com/webapp/sps/site/prod_summary.jsp?code=MCF5216&nodeId=018rH3YTLC00M9)
  - MCF5214:  
[http://www.freescale.com/webapp/sps/site/prod\\_summary.jsp?code=MCF5214&nodeId=018rH3YTLC00M9](http://www.freescale.com/webapp/sps/site/prod_summary.jsp?code=MCF5214&nodeId=018rH3YTLC00M9)

# Rescreened Product Details

- Re-screened product is available today shipping according to orders on the book
- Any product with a date code prior to 0513 is affected.
- All product with date code of 0513 or higher will be tested with the new program and will not need to be rescreened.
- Re-screened product will be identified with a “T” in the part marking in addition to a green dot on the bag and box.
  - Marking:

(F)  
COLD FIRE  
MCF5282CVF66  
MMMM  
FAWLYYWWZ  
T

- The “YYWW” letters above indicate the date code to note.
- The 'T' on the bottom will indicate that the part has been re-screened.

# Using the SRAM and Cache Test Code

To locate SRAM and Cache Test code, go to MCF528x, MCF514/16 web page  
Under: Design Tools -> Software -> Application Software -> Code Examples

## IBIS

ID and Description	Vendor ID	Format	Size K	Rev #	Order Availability
<a href="#">MCF5282IBIS</a> MCF5282 IBIS Models	FREESCALE	ibs	277	0	-

## Software

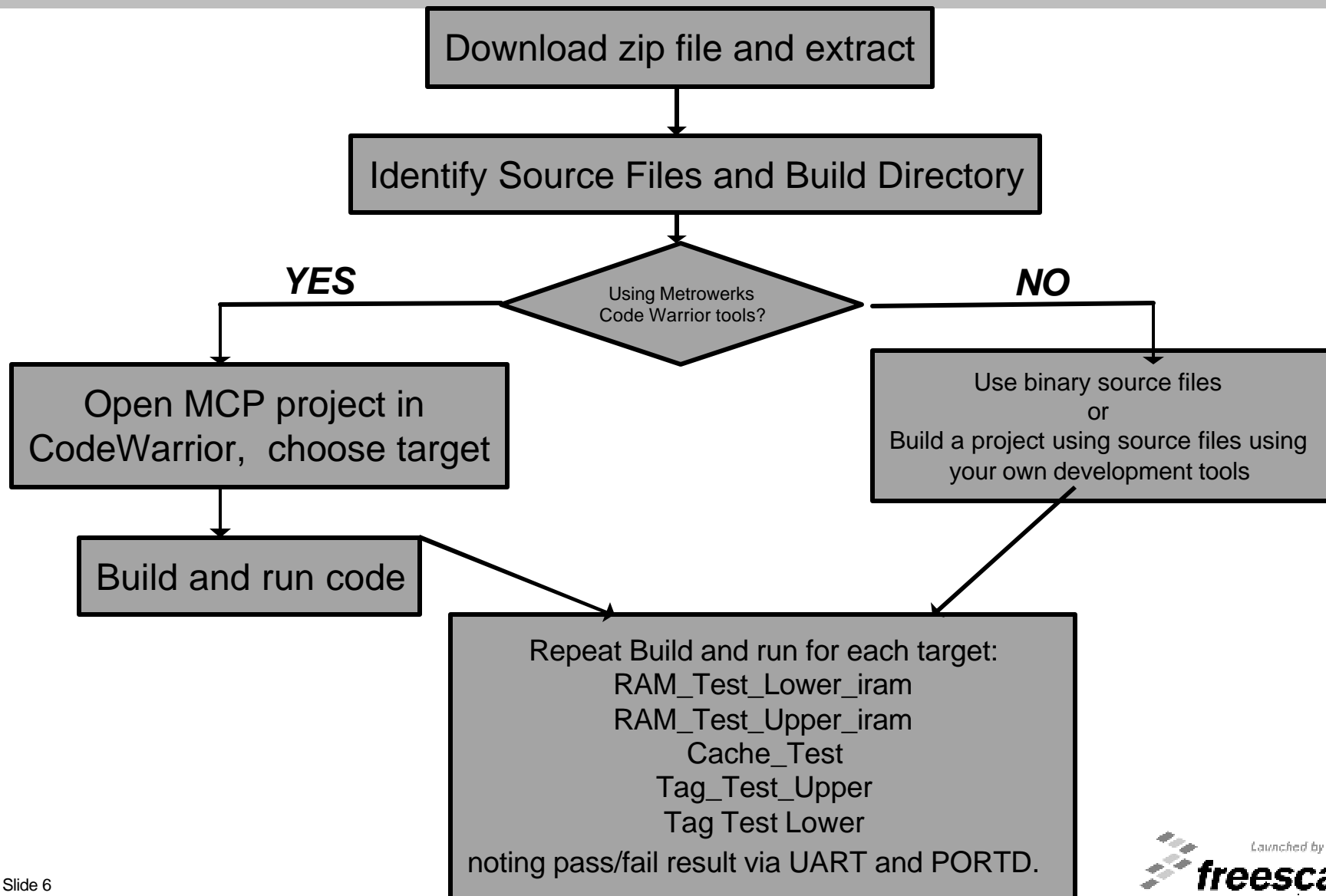
### Application Software Code Examples

ID and Description	Vendor ID	Format	Size K	Rev #	Order Availability
<a href="#">M5282EVBDDEBUG</a> M5282EVBD dBUG source files	FREESCALE	zip	606	v3a.1a.1b	-
<a href="#">MCF5282I2C</a> MCF5282 I2C example code	FREESCALE	zip	126	2.0	-
<a href="#">MCF5282SC</a> MCF5282/MCF5280 processor initialization template, header files, and software examples updated revision to include I2C example and CodeWarrior projects for internal flash	FREESCALE	zip	100	1c	-
<a href="#">RAM CACHE TEST <b>NEW</b></a> MCF528x and MCF5216/14 SRAM and cache test code	FREESCALE	zip	230	1.0	-

### Board Support Packages

ID and Description	Vendor ID	Format	Size K	Rev #	Order Availability
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# Detailed Instructions for Test Code



# Additional Questions or Assistance

**Freescale understands the serious nature of this alert.  
If you have problems or questions running this code,  
please contact your regional marketing support for  
further assistance.**

**We will provide additional applications assistance  
where necessary.**



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