

56F8002*Preliminary Chip Errata***56F8002 Digital Signal Controller**

This document reports errata information on chip revision A. Errata numbers are in the form n.m, where n is the number of the errata item and m identifies the document revision number. This document is a pre-publication draft.

Chip Revision A Errata Information:

The following errata items apply only to Revision A 56F8002 devices. These parts are marked with 1M53M.

| Errata Number | Description | Impact and Workaround |
|----------------------|--|--|
| 1.0 | If the Watch Dog Timer (WDT) is used to wake the device from the Partial Power Down (PPD) mode, the WDT may count down too quickly. | Impact: The device may not wake from the PPD mode reliably. Workaround: Use the RTC timer to wake from the PPD mode to the Run mode, rather than the WDT or use a timeout longer than 100 ms for the Watch Dog Timer to wake the device from Partial Power Down mode. |
| 2.0 | The internal relaxation oscillator does not meet the specifications for frequency. | Impact: Peripherals may operate with unexpected timing. Workaround: If stricter timing is required, use an external crystal, resonator, or oscillator module of the required frequency specification. |
| 3.0 | The ADC Conversion Complete interrupt is asserted and then removed if sample_select ping-pongs to other ADC register-set prior to the CPU servicing the interrupt request. | Impact: The ADC interrupt signal may not interrupt the core. Workaround: Make the ADC a higher priority interrupt or poll the ADC in a timer or PWM interrupt handler rather than use the ADC interrupts. |
| 4.0 | A hardware trigger generated through a PGA to an ADC may upset the use of Software triggers with the PGA. | Impact: Incorrect triggering of the ADC by the PGA may result in wrong data from the ADC. Workaround: Avoid the use of the software trigger mode of the PGA. |

Chip Revision A Errata Information:

The following errata items apply only to Revision A 56F8002 devices. These parts are marked with 1M53M.

| Errata Number | Description | Impact and Workaround |
|---------------|--|--|
| 5.0 | The VBA register reset value suggests the interrupt vector table should be placed at program address word 0x1000 instead of 0x800. | Impact: When the VBA is not correct the device may vector to an undetermined address. Workaround: Initialize the VBA register in the startup code, rather than utilize the reset value. |

Errata Sheet History

| Previously Documented in Past Errata Sheets | Correction |
|---|------------|
| | |

THIS PAGE IS INTENTIONALLY BLANK

How to Reach Us:

Home Page:

www.freescale.com

Web Support:

<http://www.freescale.com/support>

USA/Europe or Locations Not Listed:

Freescale Semiconductor, Inc.
Technical Information Center, EL516
2100 East Elliot Road
Tempe, Arizona 85284
+1-800-521-6274 or +1-480-768-2130
www.freescale.com/support

Europe, Middle East, and Africa:

Freescale Halbleiter Deutschland GmbH
Technical Information Center
Schatzbogen 7
81829 Muenchen, Germany
+44 1296 380 456 (English)
+46 8 52200080 (English)
+49 89 92103 559 (German)
+33 1 69 35 48 48 (French)
www.freescale.com/support

Japan:

Freescale Semiconductor Japan Ltd.
Headquarters
ARCO Tower 15F
1-8-1, Shimo-Meguro, Meguro-ku,
Tokyo 153-0064
Japan
0120 191014 or +81 3 5437 9125
support.japan@freescale.com

Asia/Pacific:

Freescale Semiconductor Hong Kong Ltd.
Technical Information Center
2 Dai King Street
Tai Po Industrial Estate
Tai Po, N.T., Hong Kong
+800 2666 8080
support.asia@freescale.com

For Literature Requests Only:

Freescale Semiconductor Literature Distribution Center
P.O. Box 5405
Denver, Colorado 80217
1-800-441-2447 or 303-675-2140
Fax: 303-675-2150
LDCForFreescaleSemiconductor@hibbertgroup.com

Information in this document is provided solely to enable system and software implementers to use Freescale Semiconductor products. There are no express or implied copyright licenses granted hereunder to design or fabricate any integrated circuits or integrated circuits based on the information in this document.

Freescale Semiconductor reserves the right to make changes without further notice to any products herein. Freescale Semiconductor makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Freescale Semiconductor assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation consequential or incidental damages. "Typical" parameters that may be provided in Freescale Semiconductor data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals", must be validated for each customer application by customer's technical experts. Freescale Semiconductor does not convey any license under its patent rights nor the rights of others. Freescale Semiconductor products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other applications intended to support or sustain life, or for any other application in which the failure of the Freescale Semiconductor product could create a situation where personal injury or death may occur. Should Buyer purchase or use Freescale Semiconductor products for any such unintended or unauthorized application, Buyer shall indemnify and hold Freescale Semiconductor and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that Freescale Semiconductor was negligent regarding the design or manufacture of the part.

RoHS-compliant and/or Pb-free versions of Freescale products have the functionality and electrical characteristics as their non-RoHS-compliant and/or non-Pb-free counterparts. For further information, see <http://www.freescale.com> or contact your Freescale sales representative.

For information on Freescale's Environmental Products program, go to <http://www.freescale.com/epp>.

Freescale™ and the Freescale logo are trademarks of Freescale Semiconductor, Inc. All other product or service names are the property of their respective owners.

© Freescale Semiconductor, Inc. 2009. All rights reserved.



Freescale™ and the Freescale logo are trademarks of Freescale Semiconductor, Inc. All other product or service names are the property of their respective owners. This product incorporates SuperFlash® technology licensed from SST.

© Freescale Semiconductor, Inc. 2009