

## MCF52259 Chip Errata

Silicon Revision: All

This document identifies implementation differences between the MCF5225x and the MCF5226x processors and the description contained in the *MCF52259 ColdFire® Reference Manual*. Refer to <http://www.freescale.com/coldfire> for the latest updates.

**Table 1. Summary of MCF5225x and MCF5226x Errata**

Errata	Module Affected	Date Errata Added	Revision Affected?
			MCF5225/6x
<a href="#">SECF194</a>	OSC	04/05/11	Yes
<a href="#">SECF195</a>	OSC	04/05/11	Yes

The table below provides a revision history for this document.

**Table 2. Document Revision History**

Rev. No.	Date	Substantive Changes
0	04/2011	Added <a href="#">SECF194</a> and <a href="#">SECF195</a>

**SECF194: OSC: Intermittent operation of crystal oscillator over full temperature range with greater than 25 MHz crystal.**

Errata type: Silicon

**Affects:** Oscillator

**Description:** If a crystal frequency greater than 25 MHz is used, the crystal oscillator voltage may decay to a very low amplitude over a narrow temperature range. The exact temperature range is implementation specific and is dependent upon the crystal, the crystal load capacitors, and the board layout. In some cases the very low oscillator voltage amplitude may cause the device to reset.

**Workaround:** It is recommended that the following action be taken to avoid problems:

Perform negative resistance test on the crystal oscillator circuit to determine level of margin. Margin level is measured resistance at room temperature divided by the series resistance of the crystal. If margin is below 2 make circuit changes as detailed here.

If the margin is below 2, perform one of the following actions:

1. Change the clock source to an external clock and make appropriate mode select changes, or
2. Use a crystal of 25 MHz or less.

**Fix plan:** No plans to fix.

### **SECF195: OSC: Limited input voltage range on EXTAL pin.**

**Errata type:** Silicon

**Affects:** Oscillator

**Description:** The input circuit of the EXTAL pin should be limited to 3.0 V. Failure to keep the voltage below 3.0V may lead to a decrease in lifespan of the device.

**Workaround:** It is recommended that the following action be taken to avoid problems:

- Ensure that the maximum voltage on EXTAL is below 3.0V. Use a resistor divider or other method to keep input voltage on EXTAL pin below 3.0V.

**Fix plan:** No plans to fix.

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Freescale Halbleiter Deutschland GmbH  
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Freescale Semiconductor Japan Ltd.  
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 1-8-1, Shimo-Meguro, Meguro-ku,  
 Tokyo 153-0064  
 Japan  
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[support.japan@freescale.com](mailto:support.japan@freescale.com)

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Freescale Semiconductor China Ltd.  
 Exchange Building 23F  
 No. 118 Jianguo Road  
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