Introduction

The ATmega8A devices you have received conform functionally to the current device data sheet (http://www.microchip.com/DS40001974), except for the anomalies described in this document. The errata described in this document will likely be addressed in future revisions of the ATmega8A devices.

Note:

- This document summarizes all the silicon errata issues from all revisions of silicon, previous as well as current
### Silicon Issue Summary

**Legend**

- Erratum is not applicable.
- X Erratum is applicable.
- * This silicon revision was never released to production.

<table>
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<tr>
<th>Peripheral</th>
<th>Short Description</th>
<th>Valid for Silicon Revision</th>
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<tbody>
<tr>
<td>AC</td>
<td>Analog Comparator Initial Operation May Be Slow</td>
<td>*</td>
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<tr>
<td>TC2</td>
<td>Interrupts May Be Lost When Writing the Timer Registers in the Asynchronous Timer</td>
<td>*</td>
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<tr>
<td>Device</td>
<td>Signature May Be Erased in Serial Programming Mode</td>
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<td></td>
<td>Reading EEPROM by Using ST or STS to Set EERE Bit Triggers an Unexpected Interrupt Request</td>
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</table>
2. Silicon Errata Issues

2.1 Errata Details

- Erratum is not applicable.
- X Erratum is applicable.
* This silicon revision was never released to production.

2.2 AC - Analog Comparator

2.2.1 Analog Comparator Initial Operation May Be Slow
If the device is powered by a slow rising \( V_{CC} \), the Analog Comparator initial operation may be slower than expected on some devices.

Work around
When the device has been powered or reset, disable and then enable the Analog Comparator before the first operation.

Affected Silicon Revisions

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2.3 TC2 - Timer/Counter2

2.3.1 Interrupts May Be Lost When Writing the Timer Registers in the Asynchronous Timer
The interrupts will be lost if a timer register that is a synchronous timer clock is written when the asynchronous Timer/Counter register (TCNTx) is \( 0x00 \).

Work around
Always check that the asynchronous Timer/Counter register neither has the value \( 0xFF \) nor \( 0x00 \) before writing to the asynchronous Timer Control Register (TCCRx), asynchronous Timer Counter Register (TCNTx), or asynchronous Output Compare Register (OCRx).

Affected Silicon Revisions

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2.4 Device

2.4.1 Signature May Be Erased in Serial Programming Mode
If the signature bytes are read before a chip erase command is completed, the signature may be erased, causing the device ID and calibration bytes to disappear. This is critical, especially if the part is running on an internal RC oscillator.

Work around
Ensure that the chiperase command has exceeded before applying the next command.

### Affected Silicon Revisions

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#### 2.4.2 Reading EEPROM by Using ST or STS to Set EERE Bit Triggers an Unexpected Interrupt Request

Reading EEPROM by using the ST or STS command to set the EERE bit in the EECR register triggers an unexpected EEPROM interrupt request.

**Work around**

Always use OUT or SBI to set EERE in EECR.

### Affected Silicon Revisions

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3. Data Sheet Clarifications

The following typographic corrections and clarifications are to be noted for the latest version of the device data sheet (http://microchip.com/DS40001974).

**Note:** Corrections are shown in **bold**. Where possible, the original bold text formatting has been removed for clarity.

3.1 None

There are no known data sheet clarifications as of this publication date.
4. Document Revision History

Note: The data sheet clarification document revision is independent of the die revision and the device variant (last letter of the ordering number).

4.1 Revision History

<table>
<thead>
<tr>
<th>Doc Rev.</th>
<th>Date</th>
<th>Comments</th>
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| A        | 03/2020 | Initial release of this document.  
  • Content moved from the data sheet and restructured to the new document template  
  • Updated the die revision list to reflect die revisions in production |
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