

Errata

- Wrong Clearing of XTRF in MCUSR
- Reset During EEPROM Write
- Verifying EEPROM in System
- Serial Programming at Voltages below 3.0 Volts
- High I_{CC} in Power Down with External Clock Running
- Wrong Latching of RCEN fuse

6. Wrong Clearing of XTRF in MCUSR

The XTRF flag in MCUSR will be cleared when clearing the PORF-flag. The flag does not get cleared by writing a "0" to it.

Problem Fix/Workaround

Finish the test of both flags before clearing any of them. Clear both flags simultaneously by writing 0 to both PORF and XTRF in MCUCR.

5. Reset During EEPROM Write

If reset is activated during EEPROM write the result is not what should be expected. The EEPROM write cycle completes as normal, but the address registers are reset to 0. The result is that both the address written and address 0 in the EEPROM can be corrupted.

Problem Fix/Workaround

Avoid using address 0 for storage, unless you can guarantee that you will not get a reset during EEPROM write.

4. Verifying EEPROM in System

EEPROM verify in In-System Programming mode cannot operate with maximum clock frequency. This is independent of the SPI clock frequency.

Problem Fix/Workaround

Reduce the clock speed, or avoid using the EEPROM verify feature.

3. Serial Programming at Voltages below 3.0 Volts

At voltages below 3.0 Volts, serial programming might fail.

Problem Fix/Workaround

Keep VCC at 3.0 Volts or higher during In-System Programming.

2. High ICC in Power Down with External Clock Running

When the external clock is running while the device is in power down, the power consumption will be higher than specified.

Problem Fix/Workaround

Stop the external clock while the device is in power down.

1. Wrong Latching of RCEN fuse

If V_{CC} goes below GND and then up to the operating voltage, the RCEN fuse can be read as unprogrammed even if it is programmed. The result of this is that the device starts looking for a clock signal on the external clock input instead of from the internal RC oscillator, making it look as if it "hangs".

Problem Fix/Workaround

Avoid that V_{CC} goes below GND.

If the device has started with the RCEN fuse read wrong, it can be restarted in the correct mode by taking V_{CC} up to the operating range, then below 0.5 volts and then up again.



8-Bit **AVR**[®]
Microcontroller
with 2K bytes of
In-System
Programmable
Flash

AT90S/LS2343
Rev. F
Errata Sheet

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Atmel Headquarters

Corporate Headquarters

2325 Orchard Parkway
San Jose, CA 95131
TEL (408) 441-0311
FAX (408) 487-2600

Europe

Atmel U.K., Ltd.
Coliseum Business Centre
Riverside Way
Camberley, Surrey GU15 3YL
England
TEL (44) 1276-686677
FAX (44) 1276-686697

Asia

Atmel Asia, Ltd.
Room 1219
Chinachem Golden Plaza
77 Mody Road
Tsimshatsui East
Kowloon, Hong Kong
TEL (852) 27219778
FAX (852) 27221369

Japan

Atmel Japan K.K.
Tonetsu Shinkawa Bldg., 9F
1-24-8 Shinkawa
Chuo-ku, Tokyo 104-0033
Japan
TEL (81) 3-3523-3551
FAX (81) 3-3523-7581

Atmel Operations

Atmel Colorado Springs

1150 E. Cheyenne Mtn. Blvd.
Colorado Springs, CO 80906
TEL (719) 576-3300
FAX (719) 540-1759

Atmel Rousset

Zone Industrielle
13106 Rousset Cedex, France
TEL (33) 4 42 53 60 00
FAX (33) 4 42 53 60 01

Fax-on-Demand

North America:
1-(800) 292-8635
International:
1-(408) 441-0732

e-mail

literature@atmel.com

Web Site

<http://www.atmel.com>

BBS

1-(408) 436-4309

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