



Blue Gecko *Bluetooth*® Low Energy SoC

Blue Gecko SoC (EFR32BG14) Errata



This document contains information on the errata of Blue Gecko SoC (EFR32BG14). The latest available revision of this device is revision B.

For errata on older revisions, please refer to the errata history section for the device. The revision information is typically specified in or near the trace code on the device. Refer to the package marking information in the data sheet for more information.

Errata effective date: August, 2018.

1. Active Errata Summary

These tables list all known errata for the Blue Gecko SoC (EFR32BG14) and all unresolved errata in revision B of the Blue Gecko SoC (EFR32BG14).

Table 1.1. Errata History Overview

Designator	Title/Problem	Exists on Re- vision:
		B
ADC_E213	ADC KEEPINSLOWACC Mode	X
DBG_E204	Debug Recovery with JTAG Does Not Work	X
EMU_E214	Device Erase Cannot Occur if Voltage Scaling Level is Too Low	X
I2C_E206	Slave Holds SCL Low After Losing Arbitration	X
RMU_E202	External Debug Access Not Available After Watchdog or Lockup Full Reset	X

Table 1.2. Active Errata Status Summary

Errata #	Designator	Title/Problem	Workaround	Affected	Resolution
			Exists	Revision	
1	ADC_E213	ADC KEEPINSLOWACC Mode	No	B	—
2	DBG_E204	Debug Recovery with JTAG Does Not Work	Yes	B	—
3	EMU_E214	Device Erase Cannot Occur if Voltage Scaling Level is Too Low	Yes	B	—
4	I2C_E206	Slave Holds SCL Low After Losing Arbitration	Yes	B	—
5	RMU_E202	External Debug Access Not Available After Watchdog or Lockup Full Reset	Yes	B	—

2. Detailed Errata Descriptions

2.1 ADC_E213 – ADC KEEPINSLOWACC Mode

Description of Errata
When WARMUP-MODE in ADCn_CTRL is set to KEEPINSLOWACC, the ADC does not track the input voltage. Also, the ADC keeps the input muxes closed even during channel switching, making it not recommended to operate the ADC in KEEPINSLOWACC mode.
Affected Conditions / Impacts
KEEPINSLOWACC warmup mode does not function properly.
Workaround
There is currently no workaround for this issue.
Resolution
There is currently no resolution for this issue.

2.2 DBG_E204 – Debug Recovery with JTAG Does Not Work

Description of Errata
The debug recovery algorithm of holding down pin reset, issuing a System Bus Stall AAP instruction, and releasing the reset pin does not work when using the JTAG debug interface. When using the JTAG debug interface, the core will continue to execute code as soon as the reset pin is released.
Affected Conditions / Impacts
The debug recovery sequence will not work when using the JTAG debug interface.
Workaround
Use the Serial Wire debug interface to implement the debug recovery sequence.
Resolution
There is currently no resolution for this issue.

2.3 EMU_E214 – Device Erase Cannot Occur if Voltage Scaling Level is Too Low

Description of Errata
The device erase logic does not check the Voltage Scale Level prior to attempting a device erase. If using Voltage Scale Level 0 (1 V), the device may not be able to erase the flash. This results in a potentially ununlockable device if operating at Voltage Scale Level 0 (1 V).
Affected Conditions / Impacts
It is possible that the flash is only partially erased when performing the operation at Voltage Scale Level 0 (1 V). If this results in the debug lock bit not clearing, a locked part doesn't unlock after the partial erasure (which it is intended to do), and the part remains locked. If subsequent erasures continue to fail, the part would remain locked.
Workaround
The voltage should be set to Voltage Scale Level 2 (1.2 V) before executing the device erase. For systems that don't lock the debug interface, the user can follow the debug recovery procedure to halt the CPU before it has a chance to execute code in software to avoid the code scaling the voltage. The device erase can then be executed at Voltage Scale Level 2 (1.2 V) (the power-on default voltage of the device). For systems that do lock the debug interface, firmware can implement a mechanism whereby it can voltage scale or unlock debug access if its defined authentication method is passed.
Resolution
There is currently no resolution for this issue.

2.4 I2C_E206 – Slave Holds SCL Low After Losing Arbitration

Description of Errata
If, while transmitting data as a slave, arbitration is lost, SCL is unintentionally held low for an indefinite period of time.
Affected Conditions / Impacts
The winner of arbitration cannot use the bus because SCL is never released.
Workaround
If the I ² C arbitration lost flag is asserted (I2C_IF_ARBLOST = 1) in slave mode (I2C_STATE_MASTER = 0), application software needs to wait for at least one SCL high time and then issue the transmission abort command (set I2C_CMD_ABORT = 1), thus releasing SCL.
Resolution
There is currently no resolution for this issue.

2.5 RMU_E202 – External Debug Access Not Available After Watchdog or Lockup Full Reset

Description of Errata
When a reset is triggered in full-reset mode, a debugger will not be able to read AHB-AP or ARM core registers.
Affected Conditions / Impacts
Systems using the full reset mode for watchdog or lockup resets will see limited debugging capability after one of these resets triggers.
Workaround
There are three possible workarounds: <ul style="list-style-type: none">• Software should configure peripherals to either LIMITED or EXTENDED mode if full debugger functionality is needed after a watchdog or lockup reset.• When using FULL reset mode, appending at least 9 idle clock cycles to the last debug command will allow the transaction to complete.• A power cycle or hard pin reset will restore normal operation.
Resolution
There is currently no resolution for this issue.

3. Errata History

This section contains the errata history for Blue Gecko SoC (EFR32BG14) devices.

For errata on latest revision, please refer to the beginning of this document. The device data sheet explains how to identify chip revision, either from package marking or electronically.

3.1 Errata History Summary

This table lists all resolved errata for the Blue Gecko SoC (EFR32BG14).

Table 3.1. Errata History Status Summary

Errata #	Designator	Title/Problem	Workaround Exists	Affected Revision	Resolution
There are no errata in the errata history for this device.					

4. Revision History

Revision 0.4

August, 2018

- Added [EMU_E214](#) and [I2C_E206](#).
- Removed TRNG_E202.

Revision 0.3

May, 2018

- Added TRNG_E202.

Revision 0.2

March, 2018

- Updated the workaround in [RMU_E202](#).

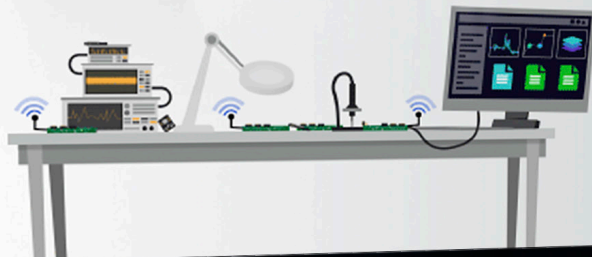
Revision 0.1

October, 2017

- Initial release.

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