IGLOO2 M2GL150ES and M2GL090ES FPGA Device, Errata

v1.0 July 2014

This Errata sheet contains information about known Errata specific to the IGLOO®2 M2GL150ES and M2GL090ES FPGA device family and provides available fixes and solutions.

Table of Contents

Table 1: **Revision History**

Date	Version	Changes
July 2014	1.0	First revision

Table 2: **Revisions Released per Device**

Silicon Device	Revision	Device Status
M2GL150	ES Devices	Advanced
M2GL090	ES Devices	Advanced

Errata for the IGLOO2 M2GL150ES and M2GL090ES Devices

Engineering sample (ES) devices are not intended to be used for volume production. Table 3 lists the specific device Errata and the affected M2GL150ES and M2GL090ES devices.

Table 3: **Summary of IGLOO2 M2GL150ES and M2GL090ES Device Errata**

No.	Errata	Affected Devices/ Software/ Revisions	Fixed in Device/Software/ Revisions
1.	IAP Programming is not supported	M2GL150ES	Updated information will be available in a future version of the Errata.
2.	ECC Point-Multiplication Service and ECC Point-Addition System Service are not supported	M2GL150ES M2GL090ES	Updated information will be available in a future version of the Errata.
3.	Programming Recovery/Auto-update is not supported in the M2GL150ES and M2GL090ES devices	M2GL150ES M2GL090ES	Updated information will be available in a future version of the Errata.
4.	Programming of the eNVM should only occur as part of a bitstream also containing the FPGA fabric	M2GL150ES M2GL090ES	Updated information will be available in a future version of the Errata.
5.	Updating eNVM from the FPGA fabric requires changes of FREQRNG register	M2GL150ES M2GL090ES	Updated information will be available in a future version of the Errata.
6.	SYSCTRL_RESET_STATUS macro is not supported	M2GL150ES M2GL090ES	Updated information will be available in a future version of the Errata.
7.	Zeroization is not supported at this time	M2GL150ES M2GL090ES	Updated information will be available in a future version of the Errata.

Errata Descriptions and Solutions

1. IAP Programming is not supported

IAP programming is not supported in M2GL150ES Silicon.

2. ECC Point-Multiplication Service and ECC Point-Addition System Service are not supported

Updated information will be available in a future version of the Errata.

3. Programming Recovery/Auto-update is not supported in the M2GL150ES and M2GL090ES devices

Updated information will be available in a future version of the Errata.

4. Programming of the eNVM should only occur as part of a bitstream also containing the FPGA fabric

The Bitstream Configuration Dialog Box in the Libero® SoC allows the user to program eNVM and the FPGA fabric separately. However, for the current production of IGLOO2 FPGAs, the user needs to program the eNVM along with the FPGA fabric. The fabric can be programmed separately if needed.

For users who need to program the eNVM separately, contact tech support.

5. Updating eNVM from the FPGA fabric requires changes of FREQRNG register

When updating the eNVM from the FPGA fabric, NV_FREQRNG register must be changed from the default value 0x07 to 0x0F. The eNVM reads are not affected.

6. SYSCTRL_RESET_STATUS macro is not supported

Updated information will be available in a future version of the Errata.

7. Zeroization is not supported at this time

Updated information will be available in a future version of the Errata.

Usage Guidelines for IGLOO2 M2GL150ES and M2GL090ES Devices

Microsemi® recommends the following conditions for IGLOO2 FPGA device usage:

1. Use application image that fits inside eNVM0

If the application image spans across eNVM0 and eNVM1, the IGLOO2 MSS may go into reset. This is a Libero SoC tool issue and will be addressed in a future release. Use an application image that fits inside eNVM0.

2. Programming support

There may be package dependencies that may not expose certain programming interfaces. Refer to the product briefs for device/package specific features.

Table 4: **Device Programming Support**

Programming Mode	JTAG	SPI Slave	Auto Programming	Auto Update	2-Step IAP	Programming Recovery
Programming Interface	JTAG	SPI_SC	SPI_0	SPI_0	SPI_0	SPI_0
M2GL090ES	Yes	Yes	No	No	No	No
M2GL150ES	Yes	Yes	No	No	No	No

Product Support

Microsemi SoC Products Group backs its products with various support services, including Customer Service, Customer Technical Support Center, a website, electronic mail, and worldwide sales offices. This appendix contains information about contacting Microsemi SoC Products Group and using these support services.

Customer Service

Contact Customer Service for non-technical product support, such as product pricing, product upgrades, update information, order status, and authorization.

From North America, call **800.262.1060**
From the rest of the world, call **650.318.4460**
Fax, from anywhere in the world **650.318.8044**

Customer Technical Support Center

Microsemi SoC Products Group staffs its Customer Technical Support Center with highly skilled engineers who can help answer your hardware, software, and design questions about Microsemi SoC Products. The Customer Technical Support Center spends a great deal of time creating application notes, answers to common design cycle questions, documentation of known Erratas and various FAQs. So, before you contact us, please visit our online resources. It is very likely we have already answered your questions.

Technical Support

Visit the Microsemi SoC Products Group Customer Support website for more information and support (*http://www.microsemi.com/soc/support/search/default.aspx*). Many answers available on the searchable web resource include diagrams, illustrations, and links to other resources on website.

Website

You can browse a variety of technical and non-technical information on the Microsemi SoC Products Group home page, at *http://www.microsemi.com/soc/*.

Contacting the Customer Technical Support Center

Highly skilled engineers staff the Technical Support Center. The Technical Support Center can be contacted by email or through the Microsemi SoC Products Group website.

Email

You can communicate your technical questions to our email address and receive answers back by email, fax, or phone. Also, if you have design problems, you can email your design files to receive assistance. We constantly monitor the email account throughout the day. When sending your request to us, please be sure to include your full name, company name, and your contact information for efficient processing of your request.

The technical support email address is *soc_tech@microsemi.com*.

My Cases

Microsemi SoC Products Group customers may submit and track technical cases online by going to *My Cases.*

Outside the U.S.

Customers needing assistance outside the US time zones can either contact technical support via email (*soc_tech@microsemi.com*) or contact a local sales office. Sales office listings can be found at *www.microsemi.com/soc/company/contact/default.aspx*.

ITAR Technical Support

For technical support on RH and RT FPGAs that are regulated by International Traffic in Arms Regulations (ITAR), contact us via *soc_tech_itar@microsemi.com*. Alternatively, within *My Cases* select **Yes** in the ITAR drop-down list. For a complete list of ITAR-regulated Microsemi FPGAs, visit the *ITAR webpage*.

Microsemi Corporate Headquarters

One Enterprise, Aliso Viejo, CA 92656 USA. Within the USA: +1 (949) 380-6100
Sales: +1 (949) 380-6136
Fax: +1 (949) 215-4996
Sales.Support@Microsemi.com

Microsemi Corporation (Nasdaq: MSCC) offers a comprehensive portfolio of semiconductor and system solutions for communications, defense and security, aerospace, and industrial markets. Products include high-performance and radiation-hardened analog mixed-signal integrated circuits, FPGAs, SoCs, and ASICs; power management products; timing and synchronization devices and precise time solutions, setting the world's standard for time; voice processing devices; RF solutions; discrete components; security technologies and scalable anti-tamper products; Power-over-Ethernet ICs and midspans; as well as custom design capabilities and services. Microsemi is headquartered in Aliso Viejo, Calif. and has approximately 3,400 employees globally. Learn more at **www.microsemi.com**.

55900184-1/07.14