
SmartFusion2 MSS

Cache Controller Configuration



Table of Contents

Configuration Options	3
Configuration Options	3
A Product Support	4
Customer Service	4
Customer Technical Support Center	4
Technical Support	4
Website	4
Contacting the Customer Technical Support Center	4
ITAR Technical Support	5

Configuration Options

The cache controller in the SmartFusion2 device caches the program instructions only. Data are not cached to avoid coherency concerns. The cache controller can treat eSRAM, eNVM, external DDR memory and FPGA fabric (via the DDR bridge) as cachable memory.

The values entered in the configurator will be exported into the programming files for programming of the flash bits that control this functionality. The flash bits are loaded in the system registers at power up (or when the DEVRST_N external pad is asserted/de-asserted).

For complete details please refer to the Microsemi SmartFusion2 User's Guide.

Configuration Options

Enable Cache - Use this option to enable the cache. If you do not want to enable the cache as part of the device boot phase, consider enabling the cache as part of the Cortex-M3 user boot phase. If you intend to protect the CC_CONFIG System Register permanently from write access (see the MSS Security Configurator), you should enable the cache controller in this configurator as you will not be able to enable it through firmware later on.

Cache Region Size - Defines the cache size (Figure 1).

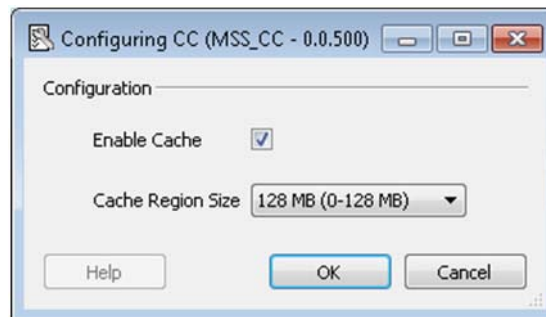


Figure 1 • MSS Cache Controller Configuration

A – 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, 408.643.6913

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 issues, 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 Customer Support website (www.microsemi.com/soc/support/search/default.aspx) for more information and support. Many answers available on the searchable web resource include diagrams, illustrations, and links to other resources on the website.

Website

You can browse a variety of technical and non-technical information on the SoC home page, at 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](#) web page.



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