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Microsemi SmartFusion2 MSS Peripheral DMA Configuration **User Manual**

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SmartFusion2 MSS

Peripheral DMA (PDMA) Configuration



Configuration Options

The Peripheral DMA (PDMA) engine offloads the ARM® CortexTM-M3 processor from data movement tasks. The PDMA allows data transfer from various MSS peripherals to memory, memory to various peripherals, and memory to memory. The data transfers can also be targeted to user logic/RAM in the FPGA fabric. For complete details please refer to the Microsemi SmartFusion2 User's Guide.

Configuration Options

Use Fabric to MSS DMAREADY_FIC_0 and/or DMAREADY_FIC_1 – The DMAREADY_FIC_0 and DMAREADY_FIC_1 signals correspond to the ready signals from a soft peripheral in the FPGA fabric accessed respectively through the Fabric Interface Controller (FIC) 0 and 1. If the channel is configured for peripheral DMA and the direction is from the soft peripheral to memory, this signal indicates that data is available within the soft peripheral to be read out.

If the channel is configured for peripheral DMA and the direction is from memory to the soft peripheral, this signal indicates that there is space within the soft peripheral for data to be written to it. Refer to the Microsemi SmartFusion2 User's Guide for more details.

You can enable the DMAREADY_FIC_0 and DMAREADY_FIC_1 signals in this configurator. The signals are then available to be used in the design (Figure 1).

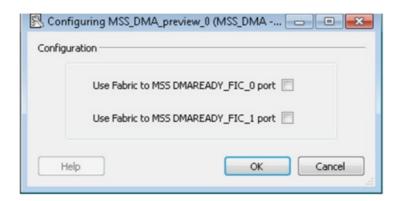


Figure 1 · MSS PDMA Configurator

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 (<u>www.microsemi.com/soc/support/search/default.aspx</u>) 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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Documents / Resources



<u>Microsemi SmartFusion2 MSS Peripheral DMA Configuration</u> [pdf] User Manual SmartFusion2 MSS Peripheral DMA Configuration, SmartFusion2 MSS, Peripheral DMA Configuration, DMA Configuration, Configuration

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