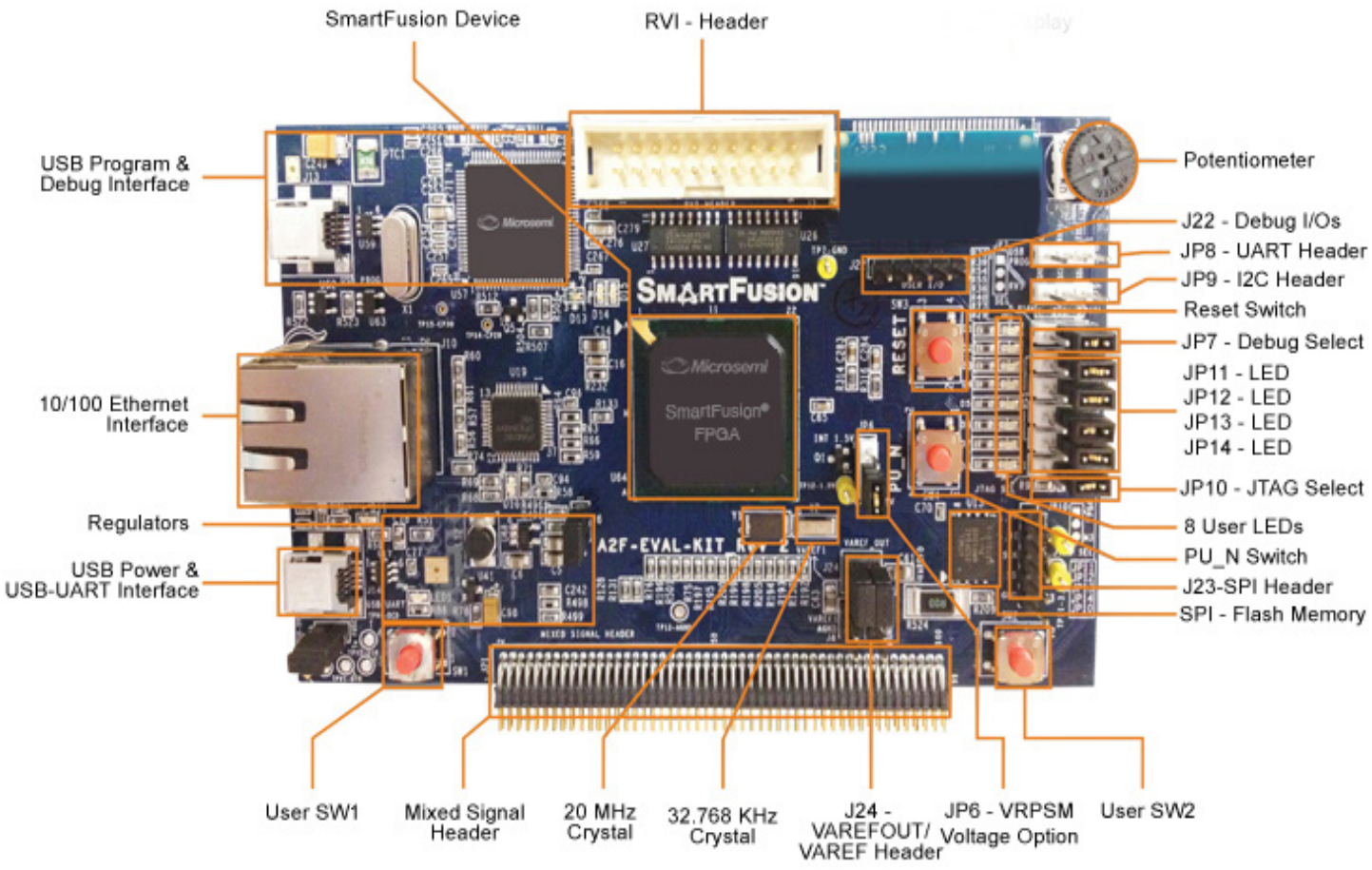
SmartFusion Evaluation Kit Quickstart Card

Kit Contents—A2F-EVAL-KIT-2

Quantity	Description
1	SmartFusion® Evaluation board with A2F200M3F-FGG484
2	USB 2.0 A to mini-B cable
1	Quickstart card

The A2F-EVAL-KIT-2 is RoHS-compliant.



Overview

The Microsemi SmartFusion Evaluation Kit provides designers access to SmartFusion customizable SoC FPGAs, the only devices that integrate an FPGA, an ARM®Cortex®-M3 processor, and programmable analog, offering full customization, IP protection, and ease-of-use.

The device contains on-chip flash and on-chip SRAM memory, as well as additional SPI flash memory on the board.

Pre-Programmed Demo Design

The SmartFusion Evaluation Kit comes with a preloaded Webserver demo design. If the board is not preprogrammed, the programming file and the source files for the demo are provided on the SmartFusion Evaluation Kit page. The source files are posted with the SmartFusion Webserver Demo Using uIP and FreeRTOS document. See the Documentation Resources section for more information.

Running the Hardware Test Design

You can run the hardware test design to verify the device and board connections. The test design files are available from the SmartFusion Evaluation Kit web page. Instructions on how to run the test are available in the SmartFusion Evaluation Kit User's Guide. See the Documentation Resource section for more information.

Jumper Settings

Prior to powering up the SmartFusion Evaluation Kit for the first time, make sure the jumpers are in the following positions.

Jumper	Location	Development Kit Function	Setting
J6	2 pins next to Ethernet jack	3.3 V Regulator	1–2
JP6	Next to PU_N switch	VRPSM voltage option	2–3
JP7	Right side of board	Input selecting option	1–2
JP10	Right side of board	JTAG programming option	1–2
JP11	Right side of board	Access to LED5	1–2
JP12	Right side of board	Access to LED6	1–2
JP13	Right side of board	Access to LED7	1–2
JP14	Right side of board	Access to LED8	1–2
J24	Bottom right side of board	VAREFOUT/ VAREF Header	1–2, 3–4

Programming and Debug

Jumpers JP7 and JP10 control the programming and debug interaction with the SmartFusion device. JP8 is the UART header and JP9 is the I2C header. Jumpers JP11–JP14 control LED access. J23 is the SPI header. The UART and circuitry on the top left of the board replicate the functionality of the Microsemi standalone low-cost programming stick (LCPS) and provide the Microsemi programming and debug interface used with the FlashPro programming software and SoftConsole Integrated Design Environment (IDE) software. The RVI header on the board is used for communication through J-LINK or U-LINK for Keil™ and IAR Systems. The following table indicates how these settings can be used.

Function	Software	Connector	JP7	JP10
Debug Cortex-M3	SoftConsole	J13—USB PROG	1–2 (USB PROG)	2–3 (M3)
Debug Cortex-M3	Keil or IAR	J3—RVI-HEADER	2–3 (RVI)	2–3 (M3)
Debug FPGA	Identity	J13—USB PROG	1–2 (USB PROG)	1–2 (FPGA)
Programming	FlashPro	J13—USB PROG	1–2 (USB PROG)	1–2 (FPGA)

Note: USB to UART for HyperTerminal is connected through the second UART connection and is not affected by these settings. For a full description of all jumpers, refer to the SmartFusion Evaluation Kit User's Guide

Software and Licensing

Libero® SoC Design Suite offers high productivity with its comprehensive, easy-to-learn, easy-to-adopt development tools for designing with Microsemi's low power Flash FPGAs and SoC. The suite integrates industry standard Synopsys Synplify Pro® synthesis and Mentor Graphics ModelSim® simulation with best-in-class constraints management and debug capabilities.

Download the latest Libero SoC release
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Documentation Resources

For more information about the SmartFusion Evaluation Kit, including user's guides, tutorials, and design examples, see the documentation at www.microsemi.com/products/fpga-soc/design-resources/dev-kits/smartfusion/smartfusion-evaluation-kit#documents.

Support

Technical support is available online at www.microsemi.com/soc/support and by email at soc_tech@microsemi.com

Microsemi sales offices, including representatives and distributors, are located worldwide.
To find your local representative, go to http://www.microsemi.com/salescontacts

Microsemi Corporate Headquarters
One Enterprise, Aliso Viejo, CA 92656 USA
Within the USA: +1 (800) 713-4113
Outside the USA: +1 (949) 380-6100
Fax: +1 (949) 215-4996
Email: sales.support@microsemi.com
www.microsemi.com

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