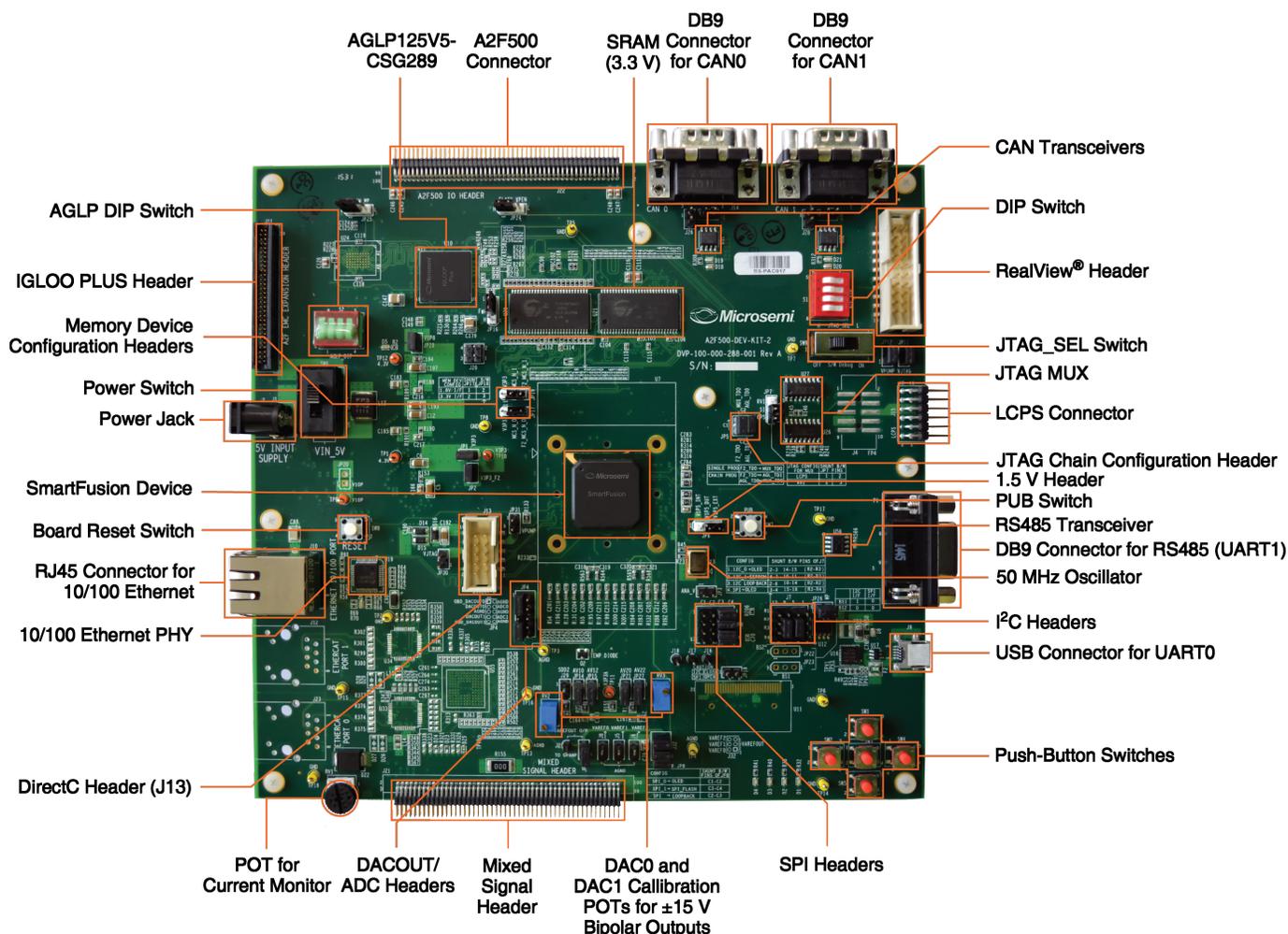


# SmartFusion Development Kit Quickstart Card

## Kit Contents—A2F500-DEV-KIT-2

Quantity	Description
1	SmartFusion Development Board with A2F500M3G-FGG484
1	Low-cost programming stick (LCPS)
2	USB 2.0 A to mini-B cable
1	5 V power supply with international adapters
1	Quickstart card

Note: this kit is ROHS-compliant.



## Overview

The SmartFusion Development Kit offers a full-featured development board for SmartFusion customizable system-on-chip (cSoC) devices. These are the only devices that integrate an FPGA, ARM Cortex-M3 microcontroller, and programmable analog, offering full customization, IP protection, and ease-of-use.

The device contains on-chip SRAM and flash memory, as well as additional off-chip memory on the board. The board also contains LEDs, switches, and various features for analog experimentation, including voltage rail monitoring, current potentiometer (POT), temperature diodes, and voltage sweeping using active bipolar prescalers (ABPS). Networking interfaces include Ethernet PHY, CAN, UART, and RS485.

## Jumper and Switch Settings

Jumpers and switches are set during the manufacturing and test of the development board. To confirm settings, review [Running the Manufacturing Test](#), page 3. SW9 must be in off position for the Libero software and SoftConsole programming.

The following table lists the settings for jumpers and switches to run the pre-programmed device. Any jumper connectors not included in this table are open.

Jumper	Pins
JP1	Pin: 1–2
JP2	Pin: 1–2
JP4	Pin: 1–3; 7–9
JP5	Pin: 1–2; 3–4
JP6	Pin: 2–3
J7	Pin: 2–3; 6–7; 10–11; 14–15
JP7	Pin: 1–2
JP8	Pin: 3–4; 7–8; 11–12; 15–16
JP11	Pin: 1–2
JP12	Pin: 1–2
JP13	Pin: 1–2
JP14	Pin: 1–2
JP15	Pin: 1–2
JP16	Pin: 2–3
JP17	Pin: 2–3
JP18	Pin: 1–2
JP19	Pin: 2–3
JP20	Pin: 1–2; 3–4

Jumper	Pins
JP22	Pin: 2–3
JP23	Pin: 1–2
JP24	Pin: 1–2
JP25	Pin: 2–3
JP26	Pin: 1–2
JP27	Pin: 1–2
JP28	Pin: 1–2
JP32	Pin: 1–2; 3–4; 5–6

For a complete description and location of each jumper, see the Smartfusion Development Kit User's Guide in the [Documentation Resources](#) section.

## Running the Manufacturing Test

You can run the manufacturing test to verify the device and board connections. The manufacturing test files are available on the SmartFusion Development Kit page. Instructions to run the test are documented in the SmartFusion Development Kit User's Guide.

## Connecting the Board

Use the following steps to connect the board:

1. Connect one of the USB cables from the PC to the USB connector on the board.
2. Connect the LCPS to the PC with a USB cable.
3. Connect the LCPS to the programming header on the board.
4. Connect the 5 V power supply to the board.

## Software and Licensing

Libero SoC Design Suite is required for designing with the SmartFusion Development Kit.

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

[www.microsemi.com/products/fpga-soc/design-resources/design-software/libero-soc#downloads](http://www.microsemi.com/products/fpga-soc/design-resources/design-software/libero-soc#downloads)

Generate a Libero Silver license for this kit

[www.microsemi.com/products/fpga-soc/design-resources/licensing](http://www.microsemi.com/products/fpga-soc/design-resources/licensing)

The SmartFusion Development Kit is also supported by Keil and IAR software, which can be installed separately. For more information about Keil and IAR, refer to their SoC Partner pages on the Microsemi website at

[www.microsemi.com/products/fpga-soc/design-resources/partners/keil](http://www.microsemi.com/products/fpga-soc/design-resources/partners/keil)

[www.microsemi.com/products/fpga-soc/design-resources/partners/iar-systems](http://www.microsemi.com/products/fpga-soc/design-resources/partners/iar-systems)

## Documentation Resources

For more information about the SmartFusion Development 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-development-kit#documentation](http://www.microsemi.com/products/fpga-soc/design-resources/dev-kits/smartfusion/smartfusion-development-kit#documentation)

## Support

Technical support is available online at [www.microsemi.com/soc/support](http://www.microsemi.com/soc/support) and by email at [soc\\_tech@microsemi.com](mailto:soc_tech@microsemi.com)

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