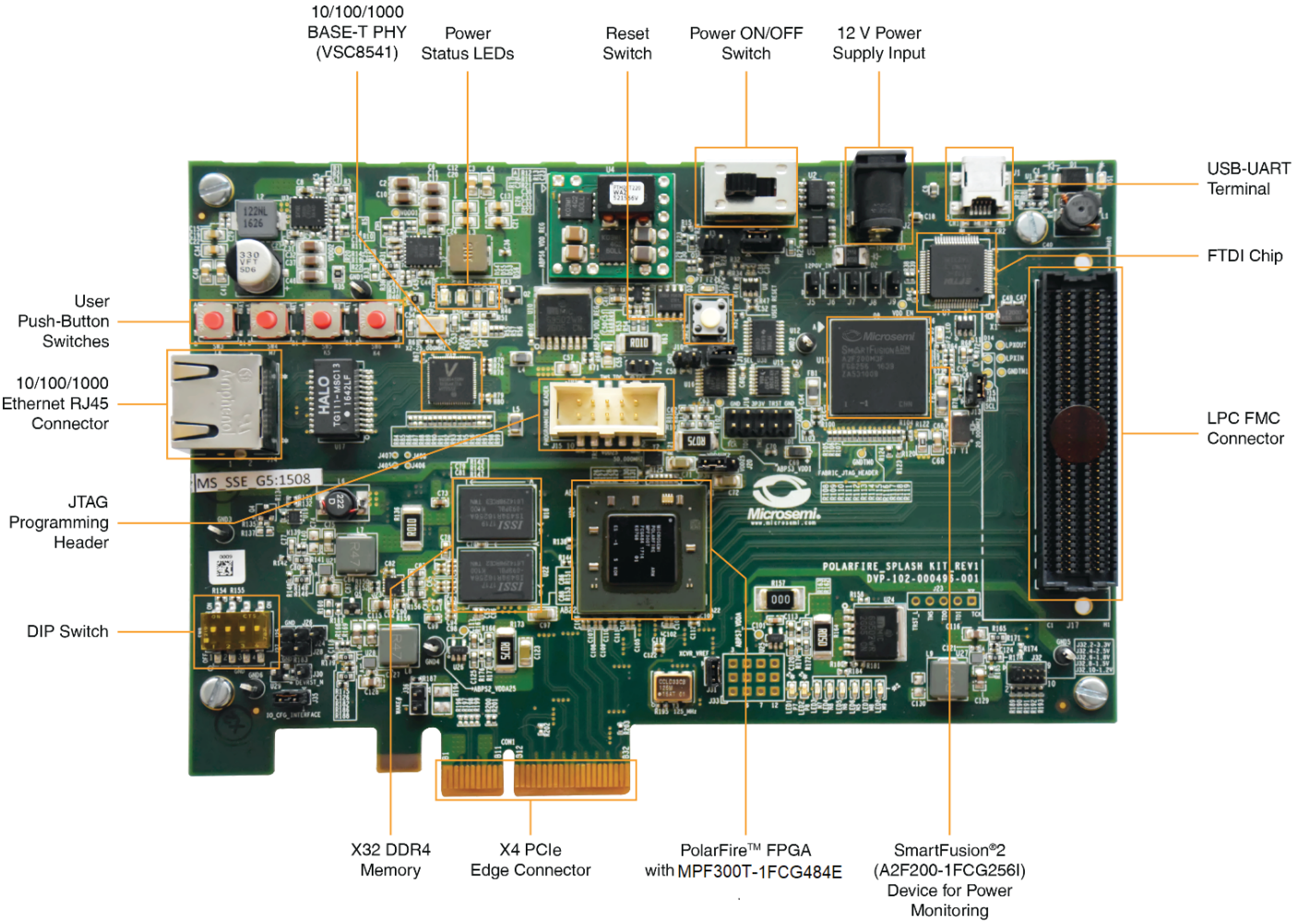
PolarFire Splash Kit Quickstart Card

Kit Contents—MPF300-SPLASH-KIT

Quantity	Description
1	PolarFire Splash Kit Board with MPF300T-1FCG484E device
1	12 V power pack/AC adapter
1	USB 2.0 A-male to Mini-B
1	1 year free Libero Gold Software license
1	Quickstart card



Overview

Microsemi's PolarFire Splash Kit is a general-purpose hardware platform for evaluating the lowest power, cost-optimized, non-volatile PolarFire FPGAs. This kit has a 300K LE PolarFire FPGA, which integrates reliable non-volatile FPGA fabric, 12.7 Gbps transceivers, 1.6 Gbps I/Os, best-in-class-performance, hardened security IP, and crypto processors. The silicon features power optimization with the lowest static power for 28 nm non-volatile FPGAs, in its low power mode; integrated DDR PHY, PCIe endpoint/ root port, and crypto processor hard IPs.

Design Applications

- Industrial automation
- Wireless access networks and cellular infrastructure
- FMC expansion
- High-speed I/O
- Imaging and video
- Security
- Power measurement

Hardware Features

- 300K LE PolarFire FPGA in a FCG484 package (MPF300T-1FCG484E)
- PCI Express (x4) edge connector
- FMC connector (LPC)
- x32 LPDDR4
- On-board power monitoring
- RJ45 interface for 10/100/1000 Ethernet using SGMII on GPIO
- USB for UART interface and programming
- 1 Gb SPI Flash memory
- JTAG and SPI programming interface

Programming

Microsemi's PolarFire Evaluation Kit provides FPGA programmability using an on-board embedded FlashPro5 programmer.

The board can also be programmed with standalone FlashPro4/5 hardware (not included with kit).

IAP programming and debug support is also provided on the board.

See Documentation Resources for more information about programming procedures.

Jumper Settings

Jumper	Pin	Factory Default
J5, J6, J7, J8, J9	2-3	Closed
J4, J11, J32	1-2	Closed

Running the Demo Design

The PolarFire Splash Board comes with a preprogrammed JESD204B standalone demo design.

Setting Up the Board

The following steps set up the PolarFire Spash Kit Board to run the JESD204B demo.

1. Connect the power supply cable to the **J2** connector on the board.
2. Connect the USB cable from the host PC to the **J1** connector (FTDI port) on the board.
3. Power on the board using the **SW1** slide switch.

The following LEDs glow when the board is completely powered-up and the demo design is running.

- Power supply LEDs: LED1 to LED6
- Demo LEDs: DS1, DS3, DS4, DS5, DS6, and D5

Software and Licensing

Libero® SoC PolarFire Design Suite offers high productivity with its comprehensive, easy-to-learn, easy-to-adopt development tools for designing with Microsemi's PolarFire FPGAs. 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
https://www.microsemi.com/products/fpga-soc/design-resources/design-software/libero-soc-polarfire#downloads

A Gold license is required to program the PolarFire Splash Kit. A Software ID letter enclosed with the kit contains Software ID and instructions on how to generate this license. For more information, see https://www.microsemi.com/products/fpga-soc/design-resources/dev-kits/polarfire/polarfire-splash-kit#licensing

Documentation Resources

For more information about the PolarFire Splash Kit, including user's guides, tutorials, and design examples, see the documentation at https://www.microsemi.com/products/fpga-soc/fpga/polarfire-fpga#documentation

Support

For Technical support log a case at our portal, https://soc.microsemi.com/Portal/Default.aspx.

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

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MSCC-0101-QS-01000-2.1-09/19