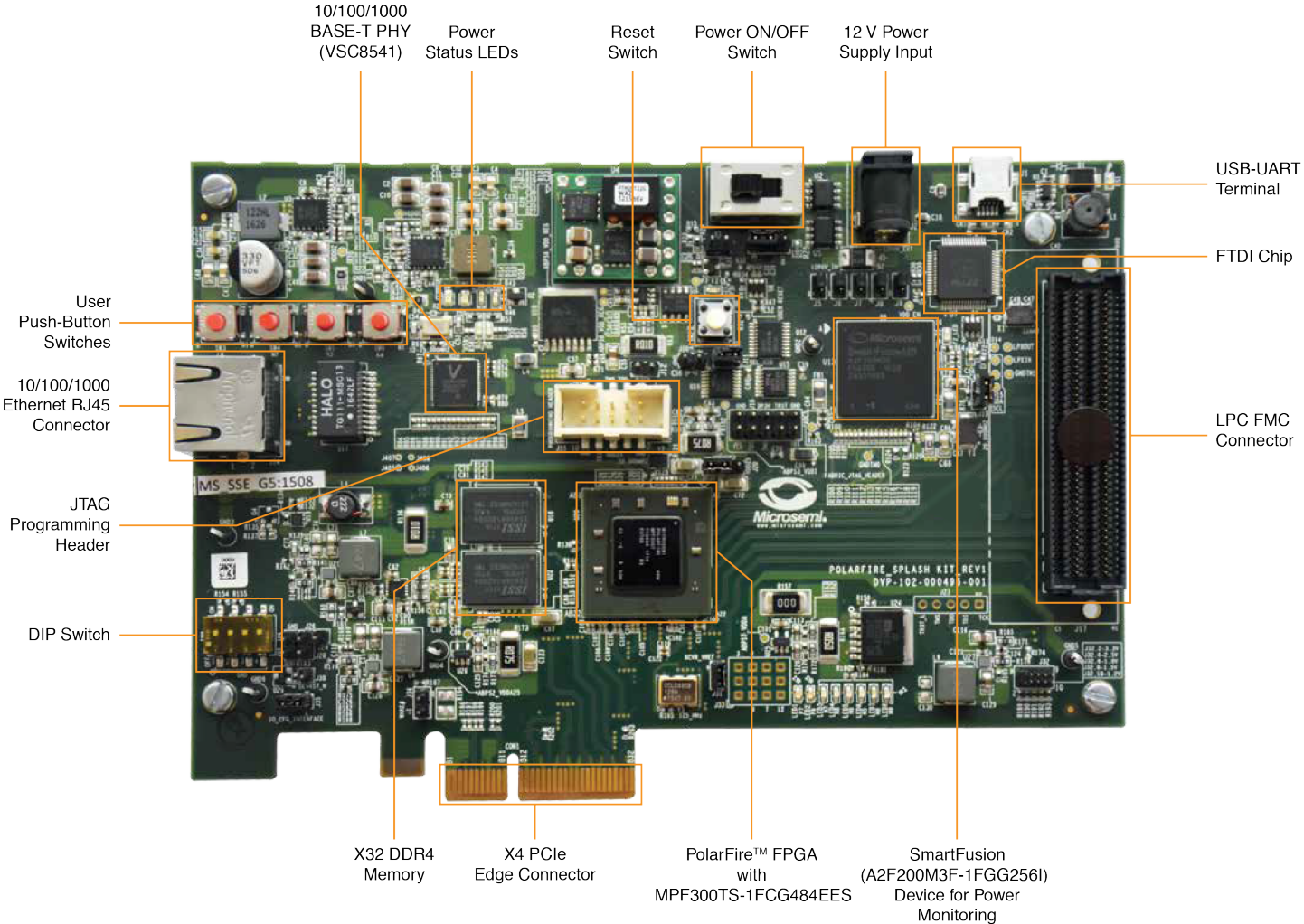


PolarFire Splash Kit Quickstart Card

Kit Contents—MPF300-SPLASH-KIT-ES

Quantity	Description
1	PolarFire Splash Kit Board with MPF300TS-1FCG484EES 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, its low power mode; Flash*Freeze yields best-in-class standby power and it has 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 (MPF300TS-1FCG484EES)
- 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 Splash 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

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

Microsemi sales offices, including Microsemi 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

©2017 Microsemi Corporation. All rights reserved. Microsemi and the Microsemi logo are registered trademarks of Microsemi Corporation. All other trademarks and service marks are the property of their respective owners.

Microsemi Corporation (Nasdaq: MSCC) offers a comprehensive portfolio of semiconductor and system solutions for aerospace & defense, communications, data center and industrial markets. Products include high-performance and radiation-hardened analog mixed-signal integrated circuits, FPGAs, SoCs and ASICs; power management products; timing and synchronization devices and precise time solutions, setting the world's standard for time; voice processing devices; RF solutions; discrete components; enterprise storage and communication solutions, security technologies and scalable anti-tamper products; Ethernet solutions; Power-over-Ethernet ICs and midspans; as well as custom design capabilities and services. Microsemi is headquartered in Aliso Viejo, California and has approximately 4,800 employees globally. Learn more at www.microsemi.com.

Microsemi makes no warranty, representation, or guarantee regarding the information contained herein or the suitability of its products and services for any particular purpose, nor does Microsemi assume any liability whatsoever arising out of the application or use of any product or circuit. The products sold hereunder and any other products sold by Microsemi have been subject to limited testing and should not be used in conjunction with mission-critical equipment or applications. Any performance specifications are believed to be reliable but are not verified, and Buyer must conduct and complete all performance and other testing of the products, alone and together with, or installed in, any end-products. Buyer shall not rely on any data and performance specifications or parameters provided by Microsemi. It is the Buyer's responsibility to independently determine suitability of any products and to test and verify the same. The information provided by Microsemi hereunder is provided "as is, where is" and with all faults, and the entire risk associated with such information is entirely with the Buyer. Microsemi does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other IP rights, whether with regard to such information itself or anything described by such information. Information provided in this document is proprietary to Microsemi, and Microsemi reserves the right to make any changes to the information in this document or to any products and services at any time without notice.