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Microsemi FPGA TechBytes

Microsemi Power Matters.

General Availability of Engineering Samples for PolarFire™ FPGAs

Microsemi's lowest power, cost-optimized mid-range PolarFire FPGA engineering samples are now available for all customers. The PolarFire FPGA family spans from 100K logic elements (LEs) to 500K LEs, features 12.7G transceivers, and offers up to 50% lower power than competing mid-range FPGAs.

PolarFire FPGA Family - Libero SoC PolarFire - PolarFire Evaluation Kit

PolarFire Evaluation Kit Now Shipping

Microsemi's PolarFire Evaluation Kit is a comprehensive platform for evaluating PolarFire FPGAs and is well-suited for high-speed transceiver evaluation, 10 GbE, JESD204B, PCIe, and CPRI. The kit features a high-pin-count FPGA mezzanine card (FMC) connector, numerous surface mount assemblies (SMAs), PCIe, dual Gigabit Ethernet RJ45, small form-factor pluggable (SFP) modules, DDR4, DDR3, and USB.

Open. Lowest Power. Programmable RISC-V Solutions

Microsemi now offers a comprehensive software tool chain and a RISC-V IP core for your designs. SoftConsole v5.1 is the world's first available Windows-hosted Eclipse IDE for designs utilizing RISC-V open ISAs. Microsemi's RV32IM RISC-V core is available for PolarFire, RTG4, and IGLOO2 FPGAs.

PolarFire Reference Designs Now Available for Evaluation Kit

Multiple demo reference designs are available now with full design files for Libero SoC PolarFire targeting the PolarFire Evaluation Kit. These include JESD204B interface, PCIe endpoint, 10GBASE-R Ethernet loopback, DSP FIR filter, and multi-rate transceiver demo, with additional reference designs planned over the coming months.

Libero SoC PolarFire v1.1 SP1 Available Now

Libero SoC PolarFire Design Suite provides high productivity with its comprehensive, easy to learn, easy to adopt development tools for designing with Microsemi's PolarFire FPGAs. The release of v1.1 SP1 includes faster run time, DDR3 support, and support for advanced 10 Gbps transceiver-based protocols, as well as IBIS AMI models for advanced simulation of signal integrity.

Articles

- RISC-V Pros and Cons
- Future Industrial Requirements Being Met by Redefined Mid-Range FPGAs
- Leveraging Space 1.0 Capabilities to Support Space 2.0

In the News

- Microsemi Announces SoftConsole v5.1, the World's First Freely Available Windows-Hosted Eclipse Integrated Development Environment Supporting RISC-V Open Instruction Set Architecture
- Microsemi and Intrinsic ID Collaboration Delivers SRAM-PUF in PolarFire FPGAs, Providing Advanced Security
- Celebrating 60-Year Commitment to Enabling Space Missions, Microsemi Continues to Provide Customers Innovative Solutions for Growing Space Market
- Microsemi and Synopsys Extend 20-Year OEM Relationship and Collaborate on New PolarFire FPGAs to Deliver Customized Synthesis Support
- Microsemi Announces Libero SoC v11.8 Software Providing FPGA Designers Mixed Language Simulation and Best-in-Class Debugging Capabilities
- Microsemi and Athena Announce the TeraFire Hard Cryptographic Microprocessor for PolarFire "S Class" FPGAs, Providing Advanced Security Features