Rapid eFPGA Configurator

A Paradigm Shift in eFPGA Customization

Advancing Programmability in the Next Generation of SoCs

In an era of continual technological advancement and evolution, companies are challenged to innovate in a quick, effective, and secure manner. These challenges are no small feat in the traditional hardware industry where organizations often struggle to keep pace with the changing market demands, leading to longer time-to-market, higher costs, and limited flexibility.

Embedded Field-Programmable Gate Arrays (eFPGAs) are a transformative solution, delivering unmatched flexibility, performance acceleration, and power efficiency. By integrating programmability into System-on-Chips (SoCs), designers gain the ability to seamlessly adapt their products to ever-evolving standards and requirements. Designers can now optimize silicon area while strategically balancing fabric features, aspect ratio, and resource utilization using our Vega Embedded FPGA's (eVega) best-in-class Power, Performance, and Area (PPA) characteristics.

The process of building an eFPGA remains long and tedious. What if there was a way to design your eFPGA, tailored precisely to your project needs, in a fraction of time it would take with traditional methods? Introducing the Rapid eFPGA Configurator by Rapid Silicon—a revolutionary tool empowering designers to build and customize an eFPGA with their desired mix of resources on a silicon-proven programmable fabric.

The Challenges of Traditional eFPGA Design

The traditional approach to designing eFPGAs often proves to be a bottleneck for customers. This process typically involves navigating through complex vendor negotiations, deciphering technical specifications, and enduring lengthy communication cycles — all while facing tight project deadlines. As a result, time-to-market is extended, cost increases, and the ability to innovate is stifled. It directly affects a company's ability to stay competitive in today's fast-paced market. Delayed product launches can result in missed opportunities, while rigid hardware configurations limit the adaptability needed to address evolving industry standards and customer demands.

Simplifying eFPGA Design with Rapid eFPGA Configurator

The Rapid eFPGA Configurator offers a breakthrough solution to the challenges of building and customizing eFPGAs. It simplifies the entire eFPGA design process, placing the power of customization directly into the hands of designers and proactively provides the tools to configure Embedded FPGAs.

In contrast to traditional methods that limit designers to predefined resource configurations, Rapid eFPGA Configurator empowers them with flexible control. Designers can now seamlessly select and adjust the number of key resources, including DSPs, BRAMs, Logic Elements, and CLBs, to align the eFPGA instance with their specific requirements. This unique level of customization eliminates the challenges of pre-defined constraints, leading to optimal resource allocation. The Rapid eFPGA Configurator integrated into the Raptor Design Suite facilitates evaluation of customer configured eFPGAs. The Raptor Design Suite streamlines the process of running customer specific workloads on tailored eFPGA IP. Upon finalizing the eFPGA configurations, reach out to Rapid Silicon team. Our team will then translate your specifications into a custom hard macro for the chosen technology node and foundry. Expect a rapid turnaround, with an eFPGA IP delivery completed within three months.

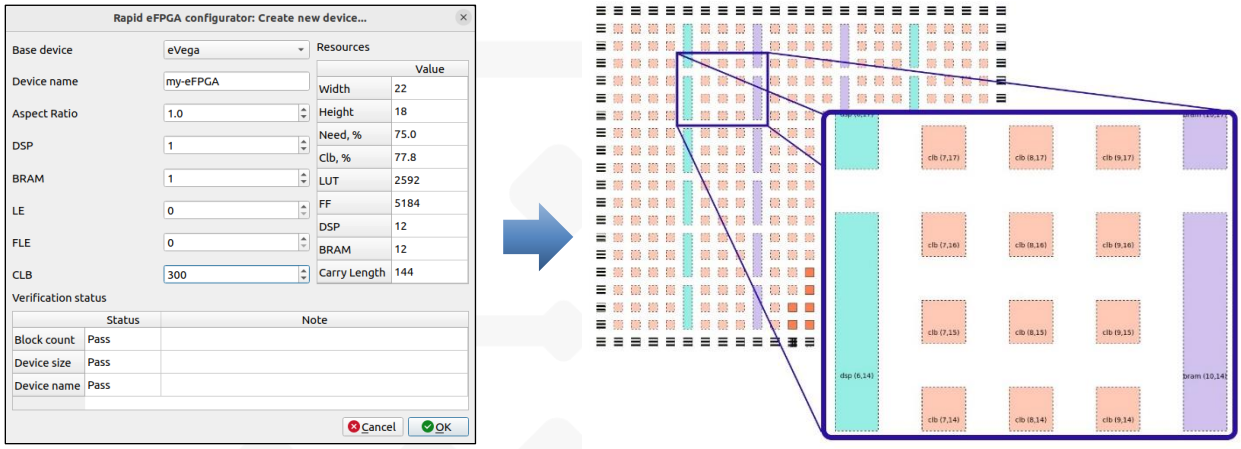

Figure 1 Rapid eFPGA Configurator and P&R View

The Competitive Edge for Faster Time-to-Market

By offering designers the ability to build and customize their own eFPGA instance quickly and easily, the Rapid eFPGA Configurator enables them to stay ahead of the curve in today's competitive market. With the flexibility to adapt to the evolving standards and requirements, designers can accelerate time-to-market, and deliver innovative solutions that meet — and exceed — the expectation of their target audience.

Access the capability of our Open-Source Raptor Design Suite - GitHub.

Start unlocking unparalleled flexibility and ease in your eFPGA development process with Rapid eFPGA Configurator. For tailored guidance and access to our tool, please provide your contact info at https://rapidsilicon.com/contact-us/