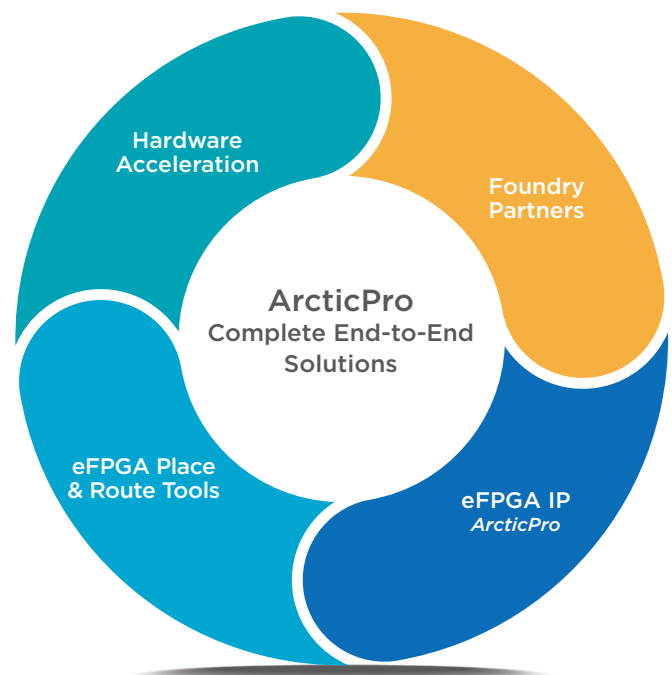


Democratizing IQ at the Edge and Beyond

Embedded FPGA (eFPGA) technology offers SoC designers and architects the ability to quickly and easily achieve post-production design flexibility in SoCs. Additionally, our eFPGA IP can increase overall system performance and decrease power consumption. QuickLogic delivers a complete solution including hard IP and hardware acceleration blocks with 100% open source development FPGA Tools.

Build flexibility and differentiation for edge devices and beyond

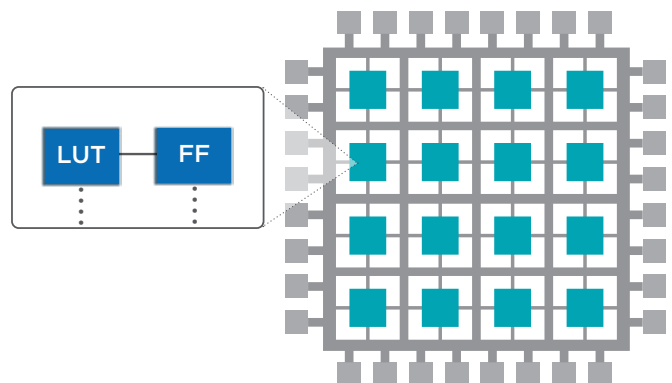
With over 30 years of programmable logic device, software and IP experience, QuickLogic is the world's leading developer of low-cost, ultra-low power, high-performance embedded FPGA solutions. The company's ArcticPro™ eFPGA technology enables SoC designs to be customized post-production without expensive and time-consuming redesign — allowing developers to easily address rapidly evolving market requirements, support emerging standards, and address multiple applications with a single mask set.



ArcticPro™

eFPGA IP

- Proven LUT-based architecture with dense routing resources
- Configurable LUT array sizes in two dimensions for efficient topologies
- Provides efficient use of silicon through high logic utilization



Hardware Acceleration

- When the eFPGA is integrated in an SoC, a key benefit is the ability to accelerate system performance or reduce system power consumption by offloading critical functions to the eFPGA.
- QuickLogic also provides ASIC and FPGA-based function blocks that can be closely coupled to the eFPGA array for easy integration, as well as an API for software developers.
- Examples of these are: FFTs, FIR Filters, etc.

eFPGA Design Tools

- **Aurora: Device Creation Tool**
 - During the SoC integration phase, we provide an intuitive way to define your eFPGA array and port mappings.
- **SymbiFlow: Open Source Development Software**
 - Including Synthesis, Place & Route and bitstream generation
 - Compatible with industry standard simulators
 - Back annotated timing data for performance analysis
 - Power calculator
- **Benefits**
 - Easy to use and with a large community of users and developers
 - Access to the source code for fast customizations and feature improvements
 - Ability to integrate into your own tool suite

eFPGA IP Deliverables

- **Customer-defined eFPGA array sizes**
- **QuickLogic provides all necessary files for SoC integration**
(.cdl, .v, .lib, .lef and .gds)

The ArcticPro family of eFPGAs is available in 3 different architectures suitable for multiple applications and process nodes.

| | Process | Foundry | Availability |
|-------------|-------------|------------------------------|--------------|
| ArcticPro | 65nm & 40nm | Global Foundries, SMIC, TSMC | Now |
| ArcticPro 2 | 22nm FDX | Global Foundries | Now |
| ArcticPro 3 | 28nm FD-SOI | Samsung® | Now |



For more information about QuickLogic, please visit www.quicklogic.com

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