

ChipX details structured ASIC to standard cell migration methodology

By Ann Steffora Mutscher, Senior Editor -- 8/22/2007

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Santa Clara, Calif.-based differentiated ASIC supplier **ChipX Inc.** today announced its XPath methodology that it says allows for quick product launches with a structured ASIC, with the ability to then migrate designs to a standard cell device once the product features and market potential have been validated.

The company believes XPath will play a valued role in the production of ASICs for a wide variety of applications, including consumer electronics and embedded products.

For many ASIC users, this approach's total time to market advantage can be the difference between becoming a market leader or being just another competitor because months of development time can be saved, virtually eliminating market and development risks from their program, the company noted.

ChipX's structured ASIC approach uses pre-validated and pre-built mixed signal IP cores integrated with configurable logic, memory, I/Os and other IP, with customers paying a fraction of the standard cell NRE and the opportunity to modify their product quickly to adjust to initial customer requirements and market demand.

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Once the product is ready for high-volume production, ChipX says it can migrate the design to a standard cell part using the same proven IP components and logic, while product availability is maintained. Customers also receive a rebate of 75 percent of the structured ASIC NRE toward the standard cell NRE price.

Richard Wawrzyniak, senior analyst with **Semico Research Corp.** said in a statement, "Product designers are often torn between developing a standard cell ASIC or SoC to achieve the lowest device cost possible, versus taking advantage of the fast time to market and minimum out of pocket expenses of structured ASICs. There is a major opportunity for a vendor that can eliminate this dilemma by offering customers an upgrade path to a lower cost device if and when they wish to exercise this option."

With a structured ASIC approach, ChipX says customers typically save two to three months from design handoff to prototypes, compared with to standard cell ASIC design, with the exact savings in time dependent on the size and complexity of a given design.

Volume production ramp can also start a month earlier with a structured ASIC approach, the company says.

When simple feature changes are made in a product, it can impact a standard cell ASIC schedule by a minimum of six months, whereas a structured ASIC re-spin can be done in half that period. Overall, customers can save six to seven months by starting with a structured ASIC, ChipX added.

Other structured ASIC suppliers include Altera, AMI Semiconductor and eASIC.