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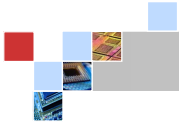
## **Sigrity Introduces Industry's First Pre-Layout System-Level Power Delivery Optimization** *OptimizePI™ Version 2.1 automates decoupling capacitor selection to reduce design time and improve quality in IC package and PCB designs*

**CAMPBELL, Calif. – May 25, 2010** – [Sigrity, Inc.](http://www.sigrity.com), which delivers advanced package physical design and power- and signal-integrity analysis products, today introduced the industry's first solution for pre-layout selection and placement of decoupling capacitors for power delivery networks in PCBs and IC packages. Implemented in a new version of Sigrity's [OptimizePI](#) solution, the analysis-based flow fully automates both design setup and electrical analysis tasks associated with pre-layout decoupling capacitor planning. Using this new flow, designers can quickly obtain optimized initial decoupling capacitor designs that are near-final in nature. This approach reduces subsequent design iterations and provides high-quality power delivery networks to help mitigate simultaneous switching output (SSO) and other issues.

“During the last three years, customers have made OptimizePI the industry's leading solution for optimized decoupling capacitor design to improve quality while reducing costs,” said Dr. Jiayuan Fang, President of Sigrity. “Now, a dedicated pre-layout OptimizePI flow gives design teams early insight into how to meet design objectives such as target impedance thresholds. Our customers benefit from increased designer productivity and improved design quality.”

### **Unparalleled capability and results**

Unlike flows that rely on spreadsheets for pre-layout decoupling capacitor studies, OptimizePI fully automates analysis set-up with the creation of a design template and a checklist flow that gives users a simple way to describe key design elements such as stack-up attributes, plane size and shape, decoupling capacitor placement guidelines and a library of candidate decoupling capacitors. OptimizePI's electromagnetic



simulation engine, combined with a highly efficient genetic optimization algorithm, rapidly analyzes feasible implementation options; it takes into account electromagnetic field propagation inside the power system, as well as device locations and the mounting parasitics of the decoupling capacitors. After it performs the analysis, OptimizePI presents designers with a list of candidate design schemes organized by their performance and cost profiles. A bill of material list and graphical display showing design scheme performance enable designers to select the best initial design for their project, assured that its quality is substantially better than otherwise possible. The resulting jump-start dramatically reduces overall design time and iterations.

The OptimizePI post-layout flow also allows for further refinements as designs near completion, resulting in products that are both high-performance and low-cost. Users control project performance and expense within the continuum of feasible design options. For performance-critical projects, OptimizePI can be used to find ways to protect sensitive components or improve operation at a target frequency range. For cost-sensitive projects, OptimizePI can find a candidate implementation that further reduces decoupling capacitor costs without reducing performance.

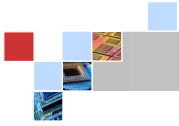
Leading power delivery network (PDN) experts have adopted OptimizePI for its breadth and depth of capability. It also has been successfully used by mainstream PCB and package engineers who say they appreciate its high level of automation and straight-forward use model. OptimizePI usually yields a positive return on investment the very first time it is applied to a design.

### **Pricing and Availability**

OptimizePI 2.1 is now available for download by existing OptimizePI users. New users can obtain OptimizePI on Windows and Linux platforms with annual prices starting at \$44,000.

### **About Sigrity**

Sigrity, Inc., a privately held U.S. company incorporated in 1998, delivers advanced software solutions for package physical design and for analyzing power and signal integrity in chips, packages and printed circuit



boards. Sigrity's patented electrical analysis methodologies run orders of magnitude faster than general-purpose electromagnetic tools, helping leading companies in the semiconductor, computer, graphics, communications and networking industries ensure high performance and reduce time to market. The company is headquartered in Campbell, Calif., with direct sales and global distribution through worldwide representatives. For more information about how to ensure operational designs by using Sigrity's package physical design and power and signal integrity analysis solutions, please visit: <http://www.sigrity.com>.

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