

Power Design, Simplified the National Way



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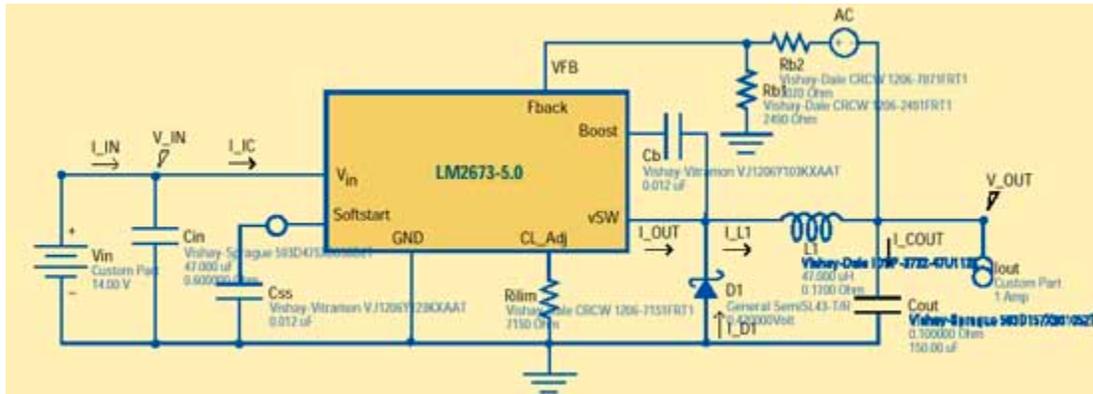
Technology Edge

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Power Design, Simplified the National Way

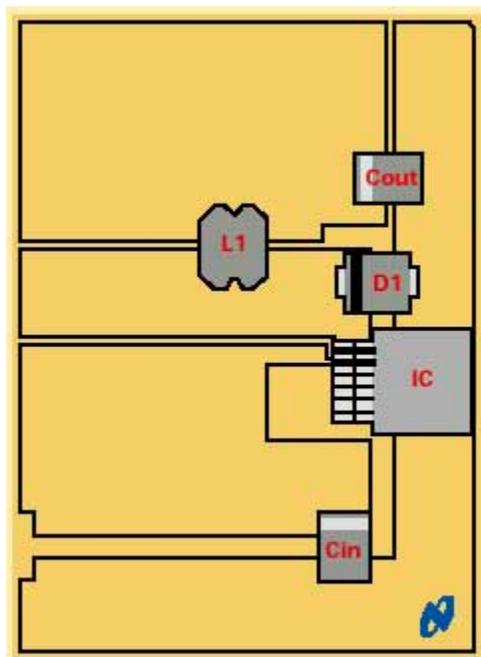
BY: Jeff Perry Internet Marketing, Power

National is redefining support for power design engineers with the POWER.NATIONAL.COM web site. Even more impressive than the data sheets, application notes, articles, product selection guides, and technical support, contained on the site is the WEBENCH™ software.



1 Electrical Analysis

WEBENCH cuts design time drastically by enabling an engineer to design and optimize a power supply (or wireless phase locked loop circuit) very quickly using sophisticated simulators and software tools. The electrical simulation tool, WebSIM™, and the thermal simulation tool, WebTHERM™, are now joined by possibly the industry's fastest ever path to prototype, Build It, through WEBENCH.

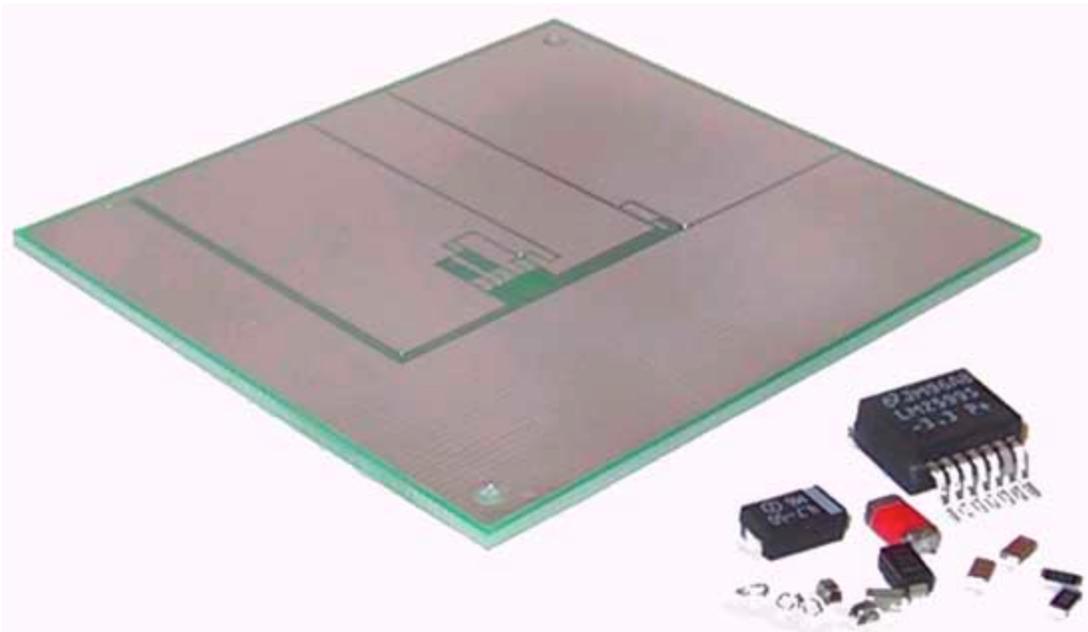


2 Layout/Thermal Analysis

Using Build It

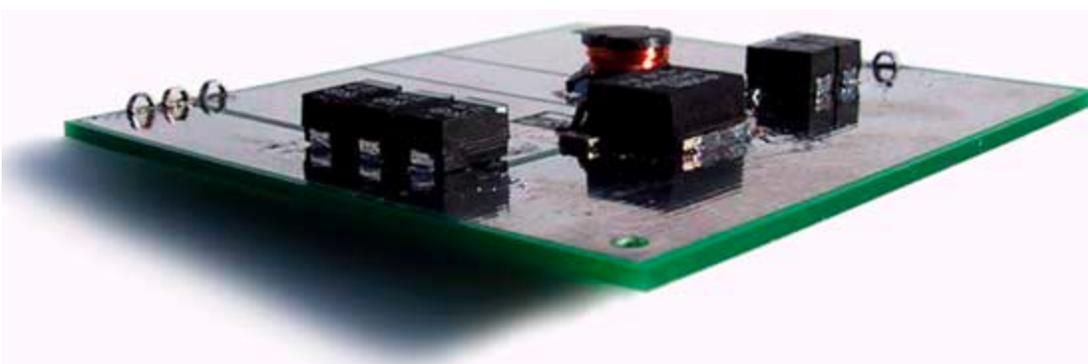
The design process is simple. After selecting WEBENCH on POWER.NATIONAL.COM, the engineer follows a simple four-part process: Choose a Part, Create a Design, Analyze a Design, and Build It. From Choose a Part the engineer proceeds to Create a Design. The design is optimized in the Analyze a Design step where WebSIM is used to generate electrical parameters and WebTHERM addresses thermal issues. The fourth step is Build It. There, the bill of materials is reviewed and price and availability are checked. The user is then taken to an authorized distributor's web site, where he enters a credit card number for the kit and confirms the order.

The custom power supply kit is shipped via overnight carrier with all the components necessary to construct the prototype board. It includes all the parts in the design including passive components, the National IC, and even test points and jumpers. A PC board is included, which matches their layout generated in WEBENCH. The need to generate a PC board or track down hard to find parts like power inductors and tantalum capacitors is eliminated, along with every bit of wasted time.



3 Procurement

From Build It, the engineer can read the assembly document that shows the PC board layout and parts placement and gives instructions for assembling the power supply. The engineer can download the schematic and layout files from the Build It documentation page into his or her local CAD system for inclusion into a larger design. Using WEBENCH with Build It, an engineer can create an optimized power supply prototype faster than ever.



4 Prototype

National Improves Customer Productivity

WEBENCH provides an end-to-end design solution. The engineer enters with specifications for a design and comes out with an optimized design and custom prototype ready for soldering. Never before has a custom solution of this nature been provided in the electronics industry.

WEBENCH™: A Winner!

We are proud to announce that WEBENCH has won the Electronic Products Magazine product of the year award. From the thousands of products introduced in 2000, the editors of Electronic Products have chosen the most outstanding. The selections are based on significant advances in technology or its application, a decided innovation in design, or a substantial gain in price-performance. WEBENCH is the first software product ever selected to win this prestigious award.

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