Power Integrations' TOPSwitch-II Expands Power Range, Improves Price Performance
TOPSwitch-II Powers 150W PC Power Supplies

Sunnyvale, CA, April 2, 1997....Power Integrations, Inc., a company dedicated to providing low cost power conversion solutions, announced today the next generation of it’s popular TOPSwitch power supply Integrated Circuits (ICs). The TOPSwitch family that enabled the integration benefits at the lowest system cost, is now enhanced with the TOPSwitch-II family that expands the power range from as low as 1/2W up to 150W, at an even lower system cost.

High Power Applications

The capability to deliver 150W of output power extends the benefits of TOPSwitch technology to several new markets. PC main power supplies, monitors, and high-end audio systems can now take advantage of the low part count, better performance and lowest system cost offered by the TOPSwitch-II family. To date these applications had to rely on expensive discrete solutions with a high part count.

For the first time, the standby power at 1/2W and the main power at 150W in a PC power supply can both be implemented using the same TOPSwitch technology. Likewise monitors that require several independent power supplies for sub-circuits, such as standby, USB, audio, and display, can all be addressed using the TOPSwitch technology. High-end audio manufacturers can replace bulky transformers with TOPSwitch designs weighing less than 1/10th of their current linear power supplies.

Product Description

The TOPSwitch-II family is an enhancement of the first generation TOPSwitch. It integrates a PWM controller, 700V power MOSFET and a number of discrete devices into a single IC. The TOPSwitch-II is functionally compatible with the first generation. Designers, who are already familiar with TOPSwitch, can immediately take advantage of the increased power and lower cost of the TOPSwitch-II in their new designs. Major improvements in the TOPSwitch-II include higher power, better performance and lower cost package options.

"We are constantly striving to improve the product performance while lowering system costs", commented Balu Balakrishnan, Vice President of Engineering and Marketing at Power Integrations. "The increased power capability and packaging options of the TOPSwitch-II reduces price by as much as 30% for equivalent power levels."

The TOPSwitch-II family consists of several members. For low power applications such as cellular phone chargers the TOP221P delivers up to 6W from universal (85-265VAC) input. For high power applications such as the main power supply in PCs, the TOP227Y delivers 150W from 230 VAC or 100/115 VAC. The entire family, TOP221-227, is available in a 3 pin TO-220 package. Additionally, TOP221-224 devices are also available in an 8-pin plastic DIP for power output up to 31W.

The lower cost DIP package uses a special lead frame to improve thermal dissipation. A TOP224P in a plastic DIP is thermally capable of delivering up to 31W of output power. By eliminating the heat-sink, designers can realize additional cost and size savings.

Application Support and Reference Design Boards

A standardized design methodology and vast knowledge base created from a wide range of TOPSwitch applications is available through a comprehensive design guide and software support. With these design support tools, designers can continue to create the lowest cost power supplies using the newest TOPSwitch-II family.

To further assist designers with faster time to market, Power Integrations will also provide new reference design boards based on the TOPSwitch-II family. The first of these reference designs, the RD4, will be a 150W PC power supply using the TOP227Y. The second reference design, the RD5, will use a TOP224P in an 8-pin plastic DIP to provide 15W of output power from a universal input (85-265 VAC).

Availability

The TOPSwitch-II family is in production now. Prices start at $0.98 for a TOP221P (8 pin plastic DIP) in 10,000 piece quantities and the TOP227Y (TO-220) is priced at $2.24 at similar quantities. Samples are available through an authorized Power
Integrations sales representative. The RD4 and RD5 reference design boards will be available in May.

Power Integrations, Inc. is a leading manufacturer of innovative power conversion integrated circuits for use in off-line AC to DC, high voltage DC to DC, telecommunications and motor control applications. For more information, visit the company's web site at: [www.powerint.com](http://www.powerint.com) or contact the company at 477 North Mathilda Ave., Sunnyvale, CA 94086. Phone: (408) 523-9200. Fax: (408) 523-9300.