



Power Integrations Expands TOPSwitch®-HX Family of Offline Switcher ICs, Enables Extremely Compact and Lightweight Notebook Adapters

New Low-Profile IC Power Package Enables 65 W Adapters Barely Larger than a Deck of Cards

New Devices Easily Meet Upcoming ENERGY STAR® 2.0 Specifications for External Adapters

SAN JOSE, Calif., Jul 17, 2008 (BUSINESS WIRE) -- Power Integrations (Nasdaq:[POWI](#)), the leader in high-voltage integrated circuits for energy-efficient power conversion, today announced a new, ultra-low-profile package for its popular [TOPSwitch-HX](#) family of AC-DC power conversion ICs. This small new package combined with the best-in-class efficiency and high operating frequency of TOPSwitch-HX enables remarkably slim, compact, and lightweight power supplies from 20 to 100 watts. Applications include adapters for notebook computers, as well as power supplies for LCD monitors and flat-panel TVs, in which slim form factor and high efficiency have become critical design criteria.

The new "L" shaped lead-bend allows the company's innovative eSIP package to lie flat against the printed circuit board with the heatsink pad facing upwards. The device stands just 2 millimeters above the board giving plenty of space for a heatsink and enabling extremely slender power supply designs.

The elegance of adapter designs enabled by the new package is demonstrated by a new reference design ([DER-196](#)) for a [65 W notebook adapter](#) only slightly larger than a standard deck of playing cards. The design, which complies with the upcoming ENERGY STAR® 2.0 specifications for external power supplies, utilizes a TOP261 chip in the new eSIP-L package. The highly efficient IC combines a 700 V switching power MOSFET with controller and supervisory functions into a single monolithic IC, reducing the need for bulky heatsinks required in designs using traditional TO-220 packaged MOSFETs and discrete controllers, and eliminating the need to encase the electronics with thermally-conductive potting compound. The package's 90-degree pin deflection enables the PCB, chip and heatsink to lie parallel to each other, while the high switching frequency of TOPSwitch-HX eliminates the need for an expensive planar type transformer. This, together with Power Integrations' proprietary transformer design, greatly reduces both the cost and size of the notebook adapter.

Comments Andrew Smith, product manager at Power Integrations: "TOPSwitch-HX has the best overall efficiency and lowest heat dissipation of any integrated flyback solution, which minimizes the surface area and heatsink hardware required to radiate the heat away from the electronics. The eSIP-L package delivers the same thermal performance as the older TO-220 package but with a much lower profile. Until now, slim power adapters have tended to be sold after-market and use exotic technologies and even potting compound to achieve acceptable thermal performance - they're expensive. The combination of TOPSwitch-HX with the new low-profile lead-bend package makes it possible to build slimline adapters - just 15mm thick - using standard wire-wound transformers and simple manufacturing techniques at a cost similar to a standard laptop adapter brick."

TOP260LN, TOP261LN and TOP262LN devices suitable for slim adapters from 20 W to 100 W power levels are available in the new eSIP-L package style immediately from \$1.00/ea in 10K unit quantities.

Power Integrations' Green Room web site (www.powerint.com/greenroom) contains information on the issue of energy waste from inefficient power supplies, as well as tips on designing products that minimize the amount of energy wasted by household and office electronics. The Green Room also provides a comprehensive guide to energy-efficiency standards around the world, as well as a host of reference designs and software to assist in the design of energy-efficient power supplies.

About Power Integrations

Power Integrations is the leading supplier of high-voltage analog integrated circuits used in energy efficient power conversion. The company's breakthrough technology enables compact, energy-efficient power supplies in a wide range of electronic products, in AC-DC, DC-DC and LED lighting applications. The company's EcoSmart® energy-efficiency technology, which dramatically reduces energy waste, has saved consumers and businesses around the world more than an estimated \$2.9 billion on their electricity bills since its introduction in 1998. Reflecting the environmental benefits of EcoSmart technology, the company's stock is included in clean-tech stock indices sponsored by Nasdaq (Nasdaq: CLEN; Nasdaq: CLES) and the American Stock Exchange (AMEX: CTIUS). For more information, visit the company's website at www.powerint.com.

SOURCE: Power Integrations

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