

NEWS RELEASE

New LLC Switcher IC From Power Integrations Delivers 1650 W of Continuous Output Power

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Powerful chipset features 98 percent efficiency in a compact, thermally efficient package

SAN JOSE, Calif.--(BUSINESS WIRE)-- **Power Integrations** (NASDAQ: **POWI**), the leader in high-voltage integrated circuits for energy-efficient power conversion, today announced a two-fold increase in power output from the **HiperLCS™-2** chipset. Featuring advanced half-bridge switch technology and an innovative package, the new device can deliver up to 1650 W of continuous output power with over 98 percent efficiency. The new family member targets industrial power supplies as well as chargers for e-scooters and outdoor power tools, where its high efficiency and high level of integration reduce enclosure volume and eliminate the need for air vents and fans, enhancing reliability and resistance to dust and moisture.

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The highly integrated HiperLCS-2 family reduces component count and board area of half-bridge LLC resonant power converters by 30 to 60 percent in

applications of 50 W and higher. The new IC increases continuous power to more than 1.6 kW and permits brief peak loads of 2.5 kW by leveraging a new, thermally efficient POWeDIP™ package. This package includes an electrically insulating, thermally conductive ceramic pad that can be easily attached to any flat, heat-sinking surface. It provides sufficient creepage to the package pins, enabling an overall thermal performance of less than 1 degree Celsius per watt.

Zeeshan Kabeer, product marketing manager at Power Integrations, said: “High power and high efficiency are non-negotiable requirements for fully sealed chargers and adapters. For those who rely on power tools or personal

transportation for their livelihood, charger failure due to dust, moisture, insects, or damage to electromechanical components is unacceptable. Our new, high-efficiency, 1650 W HiperLCS-2 device allows the manufacture of completely sealed chargers for these mission-critical applications.”

The primary-side HiperLCS2-HB devices in the chipset incorporate 600 V FREDFETs in a half-bridge configuration. Self-bias and start-up control enable operation without an external bias supply, reducing system cost and complexity. The companion IC in the chipset, the HiperLCS2-SR, incorporates a secondary-side master controller that provides optimized synchronous rectification (SR) to reduce output rectification losses. It also includes a FluxLink™ isolator for robust, high-speed feedback to the primary-side IC, eliminating the need for a slow and unreliable optocoupler. This IC controls multi-mode burst operation, ensuring excellent light- and no-load performance while eliminating audible noise and reducing output ripple. To ensure high reliability, the IC also provides comprehensive fault protection.

Availability & Resources

Pricing for **HiperLCS-2** POWeDIP ICs starts at \$5.39 for 10,000-unit quantities. Reference designs for a 1650 W DC-DC LLC half-bridge resonant converter (**DER-1060**), a 720 W DC-DC LLC half-bridge resonant converter (**DER-978**), and a 720 W PFC LLC PSU with constant voltage and constant current mode control (**DER-984**) are available for download. For further information, contact a Power Integrations sales representative or one of the company's authorized worldwide distributors— **DigiKey**, **Newark**, **Mouser** and **RS Components**, or visit **power.com**.

About Power Integrations

Power Integrations, Inc. is a leading innovator in semiconductor technologies for high-voltage power conversion. The company's products are key building blocks in the clean-power ecosystem, enabling the generation of renewable energy as well as the efficient transmission and consumption of power in applications ranging from milliwatts to megawatts. For more information, visit **www.power.com**.

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