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NEWS RELEASE

Power Integrations Revolutionizes Switch-Mode Power-Supply Design by Launching the InnoSwitch Family of Switcher ICs

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Using new FluxLinkTM safety-isolated communication technology, InnoSwitch™ combines primary- and secondary-switcher circuitry to reduce component count, eliminate slow and unreliable optocouplers, outperform primary-side controllers and slash manufacturing costs

SAN JOSE, Calif.--(BUSINESS WIRE)-- Power Integrations (Nasdaq:**POWI**), the leader in high-voltage integrated circuits for energy-efficient power conversion, today announced a new class of power-supply ICs. The **InnoSwitch™** family of highly integrated switcher ICs combines primary, secondary and feedback circuits into a single, worldwide safety-rated, surface-mount package. With **InnoSwitch** ICs, designers can easily exceed all global regulatory standards for efficiency and no-load consumption, while minimizing component count and providing highly accurate constant voltage and constant current up to 25 W. The **InnoSwitch** family is ideal for smart mobile device chargers and adapters for a wide range of applications such as set-top boxes, networking equipment and computer peripherals.

Inside the new device, highly accurate secondary-side direct voltage and current measurements are communicated across the safety isolation barrier using high-speed digital **FluxLinkTM** technology. This proprietary new feedback technique permits precise control without the need for a bulky optocoupler, while avoiding the performance compromises inherent in primary-side regulation (PSR), such as limited accuracy and efficiency and poor transient response versus no-load consumption. Furthermore, unlike primary-side regulated switchers, **InnoSwitch**-based secondary-side regulated (SSR) designs are inherently less sensitive to the tolerance of external components such as transformers, diodes, resistors and capacitors. This dramatically increases manufacturing yield and reduces total power supply cost. Now, mobile device chargers up to 5 A can have a total component count as low as PSR designs, with accurate CV and CC control (+/- 3% and +/- 5% respectively) and low voltage ripple. With high operating

efficiency and <10 mW no-load consumption, the ICs easily comply with efficiency standards such as the California Energy Commission, European Union Code of Conduct (CoC) Version 5, Tier 2, and the upcoming US Department of Energy standards (DoE 6), which will become mandatory in February, 2016.

InnoSwitch power-supply ICs include a high-voltage power MOSFET, primary-side controller, **FluxLink** feedback technology and a secondary-side controller with synchronous rectification (SR). By combining the SR function with the secondary-side master controller and by leveraging the speed of the **FluxLink** communication channel, the SR switch timing is optimized for maximum efficiency. The fast communication link also ensures highly reliable SR operation, eliminating shoot-through in either discontinuous conduction mode (DCM) or continuous conduction mode (CCM), even during transient loads and fault conditions. Effective SR operation in both DCM and CCM modes is especially beneficial in adaptive-voltage charger applications.

InnoSwitch ICs start up using bias current drawn from a high-voltage current source connected to the DRAIN pin, eliminating the need for external start-up components. An external bias winding reduces no-load and increases system efficiency during normal operation. The ICs also include comprehensive system-level features such as output over-voltage protection, overload power limiting, hysteretic thermal protection and frequency jitter to reduce EMI.

Comments Mike Matthews, Power Integrations' vice president of product development: "**InnoSwitch** ICs are the first switchers to combine the simplicity and low component count of primary-side regulation with the high performance of secondary-side control. The **InnoSwitch** family's high level of integration reduces power supply component count and its secondary-side regulated topology allows the use of simpler, lower cost, auto-wound transformers, yet improves production yield, resulting in significantly lower manufacturing cost. Two of the world's leading mobile device makers are in production with chargers using **InnoSwitch** family ICs which incorporate **FluxLink** technology."

InnoSwitch-CH, optimized for chargers, are the first released devices in the family and samples are available now. **InnoSwitch-CH** ICs are priced at $0.59 to $0.78 in 10,000-piece quantities. Reference design **RDR-420** describes a 5 V, 2 A USB charger design and is available for download now on the Power Integrations website at **http://www.power.com/innoswitch-ch**.

About Power Integrations

Power Integrations, Inc., is a Silicon Valley-based supplier of high-performance electronic components used in high-voltage power-conversion systems. The company's integrated circuits and diodes enable compact, energy-efficient AC-DC power supplies for a vast range of electronic products including mobile devices, TVs, PCs, appliances, smart utility meters and LED lights. SCALE™ IGBT-driver systems enhance the efficiency, reliability and cost of high-power applications such as industrial motor drives, solar and wind energy systems, electric vehicles and

high-voltage DC transmission. Since its introduction in 1998, Power Integrations' EcoSmart™ energy-efficiency technology has prevented billions of dollars' worth of energy waste and millions of tons of carbon emissions. Reflecting the environmental benefits of the company's products, Power Integrations' stock is included in the NASDAQ® Clean Edge® Green Energy Index, The Cleantech Index®, and the Ardour Global IndexSM. For more information, including design-support tools and resources, please visit **www.power.com**; visit Power Integrations' **Green Room** for a comprehensive guide to energy-efficiency standards around the world.

Photos/Multimedia Gallery Available: **http://www.businesswire.com/multimedia/home/20141111005311/en/**

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