

Power Integrations Releases Highly Integrated InnoSwitch3 Flyback Switcher IC for Automotive BEV and PHEV Applications

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InnoSwitch3-AQ achieves Q100; operates efficiently from 30 V to 550 V DC input

SAN JOSE, Calif.--(BUSINESS WIRE)-- Power Integrations (Nasdaq: **POWI**), the leader in high-voltage integrated circuits for energy-efficient power conversion, today announced the production release of the **InnoSwitch™3-AQ**, an AEC-Q100-qualified flyback switcher with integrated 750 V MOSFET and secondary-side sensing. The newly qualified device family targets automotive EV applications, such as traction inverter, OBC (on-board charger), EMS (energy management DC/DC bus converters) and BMS (battery management systems).

This press release features multimedia. View the full release here:

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Power Integrations Releases Highly Integrated InnoSwitch3 Flyback Switcher IC for Automotive Battery Electric Vehicles (BEV) and Plug-in Hybrid Electric Vehicle (PHEV) Applications (Graphic: Business Wire)

The **InnoSwitch3-AQ** uses Power Integrations' high-speed FluxLink™ coupling to achieve ±3% accuracy for combined line

and load regulation while eliminating both dedicated isolated transformer sense-windings and optocouplers. FluxLink technology maintains output voltage regulation even under the transient stress test, which is particularly challenging for PSR-based implementations. The integrated 750 V MOSFET meets stringent automotive de-rating requirements, and an on-chip synchronous rectifier controller delivers above 90% efficiency at the nominal 400 VDC input voltage. Optimized InnoSwitch3-AQ designs achieve less than 10 mW no-load energy usage across the input voltage range. The InnoSwitch3-AQ family ICs are packaged in a surface-mount InSOP with 11 mm primary to

secondary creepage, which exceeds the stringent requirements for high altitude (> 5000 m) isolation.

The RDR-840Q reference design kit incorporating the newly released IC demonstrates start-up, shutdown and efficient operation from 30 VDC to 550 VDC input, as well as fast transient response and a variety of safety and protection features.

Comments Power Integrations' product marketing manager, Edward Ong: "The InnoSwitch3-AQ represents the highest level of integration for a flyback controller, resulting in automotive power supplies with the lowest component count and smallest PCB area. The high efficiency of the device across a wide load range means that it easily meets the automotive industry's demanding thermal requirements." Ong continued, "FluxLink technology enables accurate performance and is highly reliable."

InnoSwitch3-AQ ICs are available in the InSOP-24D package. Devices are available now with prices starting at \$2.75 in 10,000-piece quantities. Technical support for the chipset is available from the Power Integrations website at: <https://ac-dc.power.com/products/innoswitch3-aq>

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 please visit www.power.com.

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