

NEWS RELEASE

Power Integrations Targets 800 V Automotive Applications with New Wide-Creepage Switcher IC

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1700 V InnoSwitch™3-AQ flyback switcher meets IEC60664-1 isolation standard

SAN JOSE, Calif.--(BUSINESS WIRE)-- **Power Integrations** (NASDAQ: **POWI**), the leader in high-voltage integrated circuits for energy-efficient power conversion, today introduced a wide-creepage package option for its **InnoSwitch™3-AQ** flyback switcher IC for automotive applications. A wide drain-to-source-pin creepage distance of 5.1 mm eliminates the need for conformal coating, making the IC compliant to the IEC60664-1 standard in 800 V vehicles while simplifying manufacturing and increasing system reliability.

Power Integrations targets 800 V automotive applications with new wide-creepage switcher IC. 1700 V InnoSwitch™3-AQ flyback switcher meets IEC60664-1 isolation standard. (Photo: Business Wire)

Mike Stroka, product marketing engineer at Power Integrations, said: "Automotive designers rely on the efficiency and low

component count of high-voltage power supplies designed around InnoSwitch3-AQ ICs. The increased primary-to-primary creepage and clearance distance between the drain and source pins in the new package provides support for the next generation of EV bus voltages. Power Integrations' unique InSOP™-28G package enables 1000 VDC to be provided to the primary side, while keeping all other pins safely isolated in pollution degree 2 environments."

The 1700 V-rated CV/CC **InnoSwitch3-AQ** switching power supply ICs incorporate a silicon carbide (SiC) primary switch capable of delivering up to 80 watts of output power. The highly integrated ICs reduce the number of components required to implement a power supply by as much as 50 percent, saving space, enhancing system reliability and mitigating component sourcing challenges. An increased drain-pin width is beneficial in withstanding high levels of shock and vibration, especially in eAxle automotive applications.

The new members of the **InnoSwitch3-AQ** family will start up with as little as 30 volts on the drain without external circuitry—which is critical for functional safety. Additional protection features include input under-voltage, output over-voltage and over-current limiting. Synchronous rectification and a multi-mode valley switching, discontinuous/continuous conduction mode (DCM/CCM) flyback controller deliver greater than 90 percent efficiency. Devices consume less than 15 mW at no-load. Target automotive applications include battery management systems, μ DC-DC converters, control circuits and emergency power supplies in the main traction inverter. The new ICs also have improved functionality for remote on/off.

Availability & Resources

Pricing for the new 1700 V-rated InnoSwitch3-AQ switching power supply ICs starts at \$6 per unit for 10,000-unit quantities. Sample ICs are available now with full production in the first quarter of 2025. 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, please visit **www.power.com**.

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