Dynamically Configurable Off-Line Switcher IC From Power Integrations Supports USB PD 3.0 + PPS

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InnoSwitch™3-Pro integrated switcher enables digital micro-stepping of voltage and current for precise battery charge control and elimination of DC-DC post-regulators

SAN JOSE, Calif.--(BUSINESS WIRE)-- Power Integrations (Nasdaq: POWI), the leader in high-voltage integrated circuits for energy-efficient power conversion, today announced the release of its InnoSwitch3-Pro family of configurable off-line CV/CC and CP flyback switcher ICs. Capable of delivering up to 65 W and achieving up to 94% efficiency across line and load conditions, the new devices permit precise, dynamically adjustable, control of voltage (10 mV step) and current (50 mA step), via a simple two-wire I2C interface. Devices may be paired with a microcontroller or take inputs from the system CPU to control and monitor the off-line power supply. Applications include virtually any rapid-charging protocol, including USB Power Delivery (PD) 3.0 + PPS, Quick Charge™ 4/4+, AFC, VOOC, SCP, FCP and other industrial and consumer battery chargers, dimmable LED ballast drivers and field-configurable industrial power supplies.

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

InnoSwitch™3-Pro integrated switcher enables digital micro-stepping of voltage and current for precise battery charge control and elimination of DC-DC post-regulators (Graphic: Business Wire)

InnoSwitch3-Pro power-conversion ICs include a microprocessor VCC supply - eliminating the need for an external LDO to power the microcontroller; also included is an n-channel FET driver which may be used to enable or disable the main power output. Together with integrated bus voltage, current and fault-reporting telemetry and dynamically configurable protection functions such as OTP, line OV/UV, output OV/UV, and short-circuit, the BOM
count for a sophisticated offline power supply is significantly reduced and design complexity is dramatically simplified.

Comments Shyam Dujari, director of product marketing for Power Integrations: “The AC-DC power conversion market is undergoing rapid transition with system designers needing a programmable solution that can adapt to various fast-charging protocols including the recently completed USB PD 3.0 + PPS specification.” He further added, “The ability to precisely control the output voltage and current of a power supply over a wide range is also useful for designers of specialized applications with smaller production runs, as they can easily configure a single board design for multiple product SKUs using software either at manufacture or during installation.”

New InnoSwitch3-Pro ICs employ Power Integrations’ high-speed digital communications technology, FluxLink™, plus synchronous rectification, quasi-resonant switching and a precise secondary-side feedback sensing and feedback control circuit. Devices are CQC certified, UL recognized and TUV (EN60950) approved to bridge the isolation barrier; the products’ InSOP™-24D package also provides a low-profile, thermally efficient solution with extended creepage (>11.5 mm) and clearance between primary and secondary sides for high reliability, surge protection and ESD robustness.

InnoSwitch3-Pro ICs target fast-charging protocols for applications such as smartphones, notebooks, tablets, smart speakers and non-charging applications that require either a load-controlled or configurable output. Samples are available now, priced at $1.12, in 10,000-piece quantities. Technical support for InnoSwitch3-Pro ICs is available from the Power Integrations website at: www.power.com/products/innoswitch/innoswitch3-pro.

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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