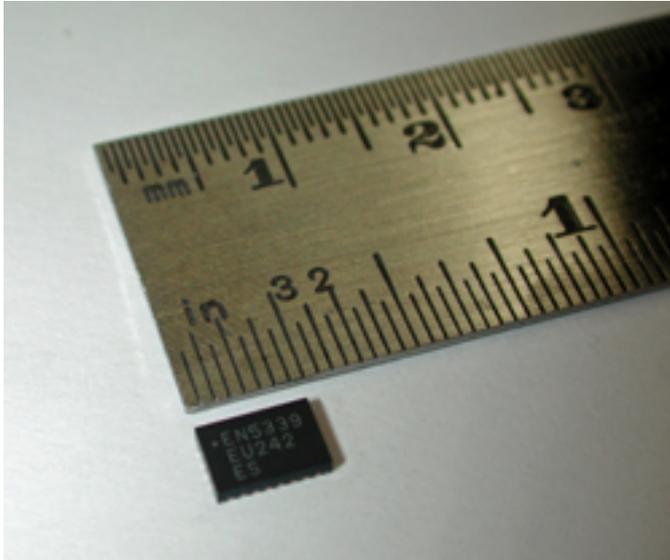


Power SoC Combines Increased Power Density, Reliability and Fast Time-to-Market for SSD Apps



Enpirion announced a new member of its power IC portfolio targeted at solid-state drives (SSDs) as well as industrial embedded applications. The Enpirion EN5339 3 Amp power system-on-a-chip (PowerSoC) integrates the controller, power MOSFETs, compensation network and inductor into one highly compact solution that significantly reduces the traditional engineering analysis and design effort associated with discrete DC-DC converter designs. Its slim profile offers Enpirion's wide base of customers - who offer diverse form factors including SATA, PCIe, mSATA and others - an important new alternative. The EN5339 has already landed more than 20 design wins ahead of its official market release.

The EN5339 fits into a 55 mm² solution area with a 1.1 mm profile - setting the bar for the smallest 3 Amp solution available. Small form-factor SSDs, in particular, require this small area and height. Keeping up with the demands of storage, embedded and industrial applications, the EN5339 enables a 20 percent solution footprint reduction and 40 percent lower profile compared to previous Enpirion 3 Amp products.

The following is a summary of specific challenges in SSD applications that the EN5339 DC-DC converter and the broader Enpirion PowerSoC portfolio meet:

Highest Power Density = Increased Storage Capacity

SSDs have at least three point-of-load voltage rails that consume valuable PCB space. The EN5339's low profile, combined with a solution footprint 75 percent smaller than competitive products, enables the highest-capacity slim SSD drives, densely stacked multi-board SSDs and mounting on the backside of PCBs.

8x Reliability= Higher-Quality End Products

Enpirion PowerSoCs achieve 21,800 years mean time between failure (MTBF). Enpirion high-efficiency devices are truly industrial graded and do not require load de-rating at 85 °C ambient temperature. PowerSoCs are specified, simulated, characterized, validated and manufacturing-tested as a complete power system –which, when coupled with tightly controlled IC manufacturing processes and fewer total components, yields unsurpassed reliability.

Simplified Design Flow = Faster Time to Market, More Projects Commercialized

Enpirion PowerSoCs require fewer design steps with significantly less exposure to design cycle iteration. Fully validated and proven PCB layout and design files are provided, enabling customers nearly 100 percent first-pass reported success.

Total Solution Cost Reduction = Competitive Products, Simplified Supply Chain

In addition to EN5339's competitive cost, Enpirion PowerSoCs require fewer external components (typically 3 to 6). EN5339's low ripple (6 mV) and EMI eliminate the need for external noise filters, while its thermal performance and construction negate the need for heatsinks.

High Efficiency = Reduced Energy Consumption and Extended Battery Life

EN5339 and Enpirion high-efficiency DC-DC converters achieve up to 96 percent efficiency.

Enpirion

908-894-6000, www.enpirion.com [1]

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<http://www.ecnmag.com/products/2011/11/power-soc-combines-increased-power-density-reliability-and-fast-time-market-ssd-apps>

Links:

[1] <http://www.enpirion.com>