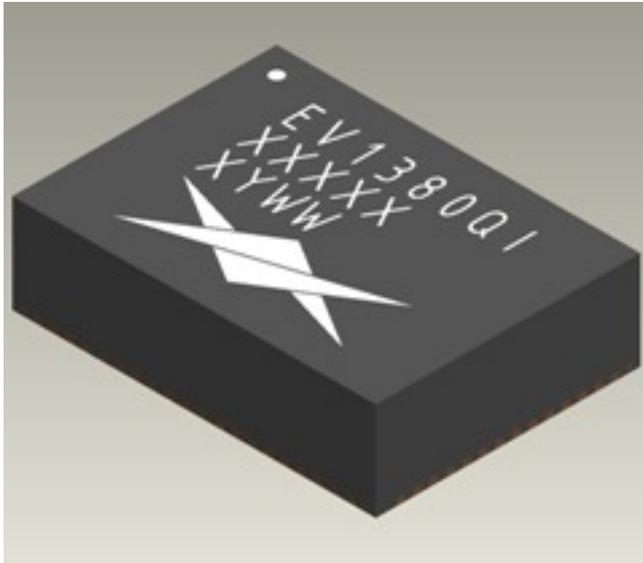


Converters Target DDR2-DDR3 VTT Applications



Enpirion today announced the introduction of the first two members of a family of PowerSoC DC-DC converters for DDR2/DDR3 VTT applications: the 8 Amp EV1380 and the 4 Amp EV1340. These low-power switch-mode converters are complete power systems on a chip (PowerSoC), achieving up to 94% efficiency and integrating the inductor, power switches, gate drive, controller, and loop compensation, all in a tiny QFN package: (8A) 8 mm x 11 mm x 3mm and (4A) 10 mm x 5.5 mm x 3 mm.

Enpirion's family of PowerSoC products has been designed specifically for VTT applications to provide the best-in-class combination of solution size and efficiency. The trend to increase the number of memory modules and their capacity in enterprise products such as servers is creating the need for high efficiency VTT solutions in order to minimize power loss. This needs to be achieved within a smaller PCB footprint, while still meeting the DDR2/DDR3 requirements for tracking accuracy and AC + DC regulation.

"PwSoC products are especially suited for applications such as DDR memory termination because they deliver the best combination of solution size and efficiency," said Jeff Shepard, president of Darnell Group (a power electronics analyst firm). "Enpirion's new VTT family of PwrSoCs is an example of a solution that helps customers reduce power loss in their designs without sacrificing precious PCB area."

Most VTT applications today utilize inefficient Low Drop Out (LDO) solutions. In a typical high-end server application, the Enpirion EV1380 can reduce the power loss by more than 13W over a LDO without sacrificing PCB area. Industry sources cite for every Watt saved in the server design, the end customer will save up to \$8.00 in power and cooling operating expenses over the life of the server. Using Enpirion's EV1380, the end customer can save more than \$100 of power and cooling expenses

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over the life of the server. This is a significant power savings for products looking for ways to improve energy efficiency, especially those targeting compliance with industry standards such as EnergyStar.

Leading OEMs in the enterprise segment are already designing with Enpirion's new PowerSoC products for VTT applications. The EV13xx PowerSoC products require very few external components, resulting in simplified board design and layout, as well as improved manufacturability and reliability.

Key features of the EV13xx PowerSoC products include:

- Outstanding power density
- Integrated inductor technology
- Peak efficiency of 94%
- Superior noise and ripple performance exceeding VTT requirements
- Meets DDR2/DDR3 tracking requirements
- Two EV1380 (8A) parts can be paralleled to support VTT applications up to 16A

"Enpirion's family of PowerSoC products for VTT applications has been designed specifically for the application to provide customers with a world class combination of efficiency and solution size," said Dr. Ashraf Lotfi, Enpirion's founder and CTO. "With the increase in memory capacity, the amount of power at stake on the VTT rail is becoming significant, so customers require very small, high efficiency solutions."

As with all of Enpirion's products, the EV13xx PowerSoC family of products was developed using advanced circuit techniques, ultra-high switching frequency, very advanced, high-density, integrated circuit and proprietary inductor technology. The result is high-quality, ultra compact, non-isolated DC-DC conversion, which Enpirion has become well-known for in the industry.

Availability

Samples of Enpirion's 8A EV1380 PowerSoC are available now, with production release planned for August. Samples of the 4A EV1340 will be available in August, and the production release is planned for October. Both the EV1380 and EV1340 are competitively priced for the markets they serve.

Additional information about these products, including data sheets and images, is available here:

<http://www.enpirion.com/products-step-down-regulators-ddr-termination-power.htm>
[1]

For additional information about Enpirion, please visit www.enpirion.com [2].

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