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NEWS RELEASE

CamSemi controller answers need for low-cost energy-efficient power supplies

CamSemi is today launching its first products - a family of breakthrough performance controller ICs – that will enable power supply designers and volume manufacturers for the first time to develop more energy-efficient products at lower cost than existing inefficient solutions.

The C2470 family is based on recent advances in intelligent digital/analogue control, coupled with a neat and simple resonant single-switch topology that has never before been exploited in an integrated form for off-line AC to DC power conversion. This patented, proprietary approach allows manufacturers to secure operating efficiencies in excess of 80% and 100 mW standby but at a new low-cost price point. While offering higher performance and superior safety features, products based on the C2470 family are cost competitive with iron-cored linear transformers and significantly cheaper than currently popular Switched Mode Power Supply (SMPS) approaches.

Given initiatives such as ENERGY STAR and the California Energy Commission, manufacturers are under increasing market and legislative pressures to stop producing bulky and energy-inefficient linear transformers that place an unnecessary burden on the environment. However, until today, a manufacturer's only option was to migrate to much more costly and complex SMPS flyback or Ringing Choke Converter (RCC) designs.

"When we first introduced our mixed signal controller concept and RDFC [Resonant Discontinuous Forward Converter] topology to early-adopter customers, the feedback was so positive that we took the strategic decision to bring them to market in advance of our other product developments. Our goal is to enable energy-efficient off-line power conversion without a cost penalty and the C2470 family of controllers does just that. The devices have been specifically optimised for high volume, low cost, single rail input markets while offering double the efficiency over traditional linear supplies," said David Baillie, CEO of CamSemi.

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“The C2470 family is a major advance for power supply designers in using a forward resonant topology with naturally high efficiency and low EMI. Now manufacturers can produce small, lightweight and more energy-efficient supplies without having to design-in complex EMI filtering circuitry typically needed with SMPS,” said John Miller, VP of Business Development at CamSemi.

CamSemi’s new controllers simplify circuit design by cutting a manufacturer’s bill of materials, improving margins and speeding up product development cycles while also providing built-in protection and other features as standard within the controller. They employ sophisticated mixed signal control allowing the use of lower cost bipolar junction transistors, as opposed to more expensive MOSFETs and lead to lower overall system costs than the currently popular SMPS flyback designs. At output power ratings of around 6 W and above they become cheaper than linear power supplies, currently the industry’s lowest-cost standard solution for off-line power conversion but which suffer from poor conversion efficiency and are bulky.

CamSemi’s new devices can easily be incorporated into energy-efficient power supplies, for a wide range of applications, with only minimal changes to layouts and components allowing multiple new product developments to be carried out in parallel. By operating in resonant mode, EMI is greatly reduced enabling the replacement of linear power supplies in demanding applications such as audio products and cordless phone chargers. As secondary feedback circuitry is no longer required, component counts are lower, circuits are simpler and with no opto-couplers or ‘Y’ capacitors safety approval is easier.

The first three members from the C2470 family being announced today are for the 6 to 40 W power range and are available in volume for applications such as battery chargers, mini adapters, routers, cordless phones and audio systems. Indicative pricing for C2472PX2, the SO23-6 part, is \$0.45 each for 1000 piece quantities. Samples and more detailed ordering information are available from www.camsemi.com/sales

Notes for editors

About CamSemi

CamSemi is the emerging leader in off-line power management ICs for optimised energy-efficient off-line power conversion. The company's unique solutions and approach can help manufacturers of mains-powered electronics develop smaller, lighter and more energy-efficient products while also reducing their design timescales and system costs.

The company was founded to bring to market a new generation of sophisticated power management ICs that help manufacturers more easily meet the world's increasing demand to save energy but at acceptable cost. CamSemi's products are based on its portfolio of patented and proprietary technologies including intelligent control architectures and PowerBrane™ which allows near-ideal performance switching of power devices such as LIGBTs and MOSFETs. These breakthrough approaches can benefit multiple markets, although initial products are targeted at the switch mode power supply and lighting sectors.

CamSemi is backed by a strong investor syndicate led by 3i and including Scottish Equity Partners and TTP Ventures.

CamSemi, the CamSemi logo and PowerBrane are UK-registered trademarks of Cambridge Semiconductor Ltd.

Press enquiries

- All media enquiries or requests for supporting images should be directed to Simon McKay on +44 (0)1353 741075 or email simon.mckay@camsemi.com
- Any other enquiries please to John Miller or David Baillie on +44 (0)1223 446450

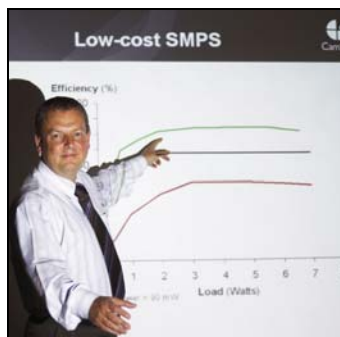
Sales enquiries

Please send sales leads or customer enquiries to:

- sales.enquiries@camsemi.com
- or by mail to:
Sales Enquiries, CamSemi, St Andrews House, St Andrews Road, Cambridge, CB4 1DL, United Kingdom

Photography

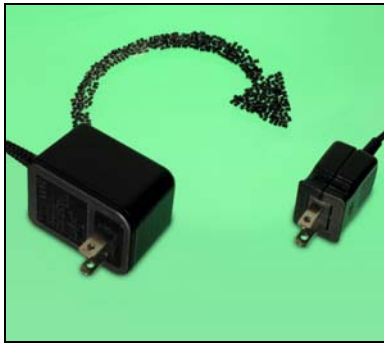
Print ready JPEGs of the images below are available from CamSemi on request:



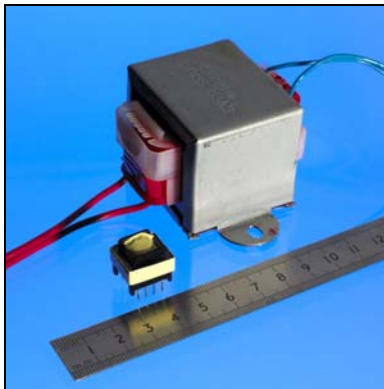
John Miller, VP of Business Development at CamSemi (shown above) explains the cost and efficiency benefits of the company's new C2470 family. The red line is percentage efficiency versus load for linears; the black line the ENERGY STAR requirement; and the green line CamSemi's new products.



CamSemi's new products will allow the rapid development of low cost embedded power supplies for applications such as audio systems and DVD players. They offer power conversion efficiencies in excess of 80% with standby consumptions of 100 mW.



The C2470 family and RDFC topology are ideal for the replacement of bulky, energy-inefficient linears (shown on the left above) with small footprint mini adapters. The mini adapter offers twice the power conversion efficiency of linears and weighs just 45 g compared with 550 g.



The C2470 family uses a tiny ferrite core (shown on the left above) in place of bulky and heavy iron-cored transformers. This offers manufacturers multiple environmental and commercial benefits including: less demand on raw materials such as steel, copper and plastic; products are easier and cheaper to manufacture and recycle; and transportation costs are significantly lower.

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