New Infineon Power Semiconductor Family Provides Industry´s Lowest Stand-By Power Consumption

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Munich, Nuremberg / Germany – May 25, 2004 – At the PCIM Europe 2004 trade show here today, Infineon Technologies AG announced its third generation integrated multi-chip power IC family, reinforcing the company's position as a leading supplier of power semiconductors for switched-mode power supply (SMPS) applications. Depending on the application, the stand-by power consumption of the new CoolSET F3 family is one third lower than that of competitors' products. The CoolSET F3 family allows SMPS manufacturers to quickly design lighter, more cost-effective power supplies with high reliability and optimized efficiency. Typical applications are power supplies for DVD recorders, flat-panel LCD monitors, digital video cameras and adapters for notebooks and other portable devices.

"The U.S. government estimates that the total amount of electricity flowing through external and internal power supplies in that country alone is more than 207 billion kwh/year, or about 6 percent of the national electric bill, and that more efficient designs could save an estimated 15 to 20 percent of that energy," said Arunjai Mittal, Vice President and General Manager, Power Management & Supply Business Unit, Infineon Technologies AG. "With the industry's lowest stand-by power consumption, the CoolSET F3 family can contribute significantly to achieving those savings."

The stand-by power consumption of Infineon's CoolSET F3 products is

the lowest currently available, exceeding the specifications of such standards as Energy Star and the German Blue Angel Eco Norm. For example, in a typical 30 watt (W) DVD recorder, the stand-by power consumption of a CoolSET F3 device is less than 100 mW. The maximum allowed for 15 W-to-50 W supplies under the Energy Star and European energy commission target specifications is 500 mW. The lowest consumption achieved by a competitive device in the same type of application is above 150 mW measured on a 10 W board.

In addition to its power consumption advantages, the CoolSET F3 family provides a new adjustable blanking window that compensates for sudden changes in load current. This is particularly important in such devices as DVD players because power consumption requirements change rapidly as a viewer plays, fast-forwards or records.

CoolSET F3 Family Technical Details

The CoolSET F3 products combine a power MOSFET (Metal Oxide Semiconductor Field Effect Transistor) implemented in the Infineon CoolMOS™ technology with a new multi-featured fixed-frequency PWM (pulse-width-modulation) control IC in a single package. A maximum on-state resistance (RDS(on)) of 650 mΩ (milliohms) at a gate voltage of 10 V in the DIP-8 packages is about 40 percent lower than that of the closest competitor.

The CoolSET F3 products feature a broad array of built-in functions. For example, an active burst mode enables the low stand-by power consumption and allows immediate response to load jumps. A peak power limitation function keeps the output power level independent of supply voltage levels, which is an important feature because most power adaptors for portables devices have universal inputs. In addition, integrated startup cells eliminate the need for an external dropping resistor and shorten the power-up time enabling lower system cost.

Availability, Pricing and Development Support

The CoolSET F3 family is available in sample quantities in June 2004. In quantities of 100,000 pieces, the unit price will be below Euro 1.50 for a 650 mΩ CoolSET in a DIP-8 package.

A CoolSET F3 evaluation package will also be available. This will include device samples, application notes, a data sheet, a demo board and demo board description, Excel-based PC calculation software and PSpice models.

Infineon Technologies will present the new power semiconductors at the PCIM Europe 2004 show (May 25 -27, 2004, in Nuremberg, Germany) in Hall 12, Booth 501.

Further information on Infineon's CoolSET products is available at www.infineon.com/coolset

The original press release can be found on www.infineon.com/