Infineon’s 800 V CoolMOS™ P7 series sets a new benchmark in efficiency and thermal performance

Munich, Germany – September 8, 2016 – Infineon Technologies AG (FSE: IFX / OTCQX: IFNNY) introduces the 800 V CoolMOS™ P7 series. Based on the superjunction technology, this 800 V MOSFET combines best-in-class performance with exceptional ease-of-use. This new product family is a perfect fit for low power SMPS applications, fully addressing market needs in performance, ease of design, and price/performance ratio. It mainly focuses on flyback topologies which are typically found in applications like adapter, LED lighting, audio, industrial and auxiliary power.

The 800 V CoolMOS P7 series offers up to 0.6 percent efficiency gain. This translates into 2 to 8 °C lower MOSFET temperature compared to the CoolMOS C3 or to competitor parts tested in typical flyback applications. This new benchmark results from a combination of optimized device parameters: including the reduction of more than 50 percent in $E_{oss}$ and $Q_g$, as well as a reduced $C_{iss}$ and $C_{oss}$. The further improved performance enables higher power density designs through lower switching losses and better DPAK $R_{DS(on)}$ products. Overall, this helps customers to save BOM costs and reduce assembly efforts.

Ease-of-use of is an intrinsic feature designed into this product family. The integrated Zener Diode significantly improves ESD ruggedness, thus reducing ESD related production yield losses. The MOSFET is easy to drive and to design-in due to its industry leading $V_{(GS)th}$ of 3 V and the smallest $V_{GS(th)}$ variation of only ±0.5 V. This combination allows for lower driving voltage and lower switching losses. Additionally, it helps to avoid unintentional operation in the linear region.

Availability
The family of 800 V CoolMOS P7 MOSFETs will be available in twelve $R_{DS(on)}$ classes and in six packages to fully address the needs of target applications. Products with $R_{DS(on)}$ of 280 mΩ, 450 mΩ, 1400 mΩ and 4500 mΩ can be ordered now. Further information is available at www.Infineon.com/p7.