



## Market News

### **Zero Voltage Switching - Switched Capacitor Converter topology offers best-in-class performance, efficiency, and power density**

Munich, Germany – 06 March 2018 –Technology advances and the demands being placed on high power Artificial Intelligence data centers are stretching the boundaries of the existing power solutions. Increasingly sophisticated power solutions are driving a rapidly increasing demand for highly efficient, resonant power supplies. These, in turn, require complex Printed Circuit Board (PCB) designs, components with extremely tight tolerances, and other high-cost solutions. Infineon Technologies' AG (FSE: IFX / OTCQX: IFNNY) answer to this design challenge is the Zero Voltage Switching (ZVS) Switched Capacitor Converter topology. This new topology approach offers best-in-class performance, efficiency, and power density at a lower cost than existing solutions. A single ZVS Switched Capacitor Converter design can deliver up to 1 kW, and is well suited for advanced server and GPU applications that use 48 V to 60 V inputs.

The ZVS Switched Capacitor Converter topology uses capacitive energy transfer to generate an intermediate bus voltage. This feeds the multi-phase buck regulators that power up CPUs, GPUs, ASICs, SoCs, and memory. The ZVS inductor ( $L_{ZVS}$ ) always guarantees soft switching by providing a discharge path for all MOSFETs prior to turn-on. This ensures that the efficiency of the converter is independent of the resonant capacitor and inductor tolerance ( $L_{R1}$  and  $L_{R2}$ ).

### **Availability**

All components used in the Zero Voltage Switching (ZVS) Switched Capacitor Converter solution are readily available from Infineon. Further information can be found at [http://www.infineon.com/zvs\\_scc](http://www.infineon.com/zvs_scc).

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**Media Relations:**  
**Worldwide Headquarters**  
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**Investor Relations**

**Name:**  
**Volker Gieritz**  
**Sian Cummings**  
**Chi Kang David Ong**  
**Yoko Sasaki**  
**EU/APAC/USA/CAN**

**Phone:**  
**+49 89 234 36572**  
**+1 310 252 7148**  
**+65 6876 3070**  
**+81 3 5745 7340**  
**+49 89 234 26655**

**Email:**  
**volker.gieritz@infineon.com**  
**sian.cummings@infineon.com**  
**david.ong@infineon.com**  
**yoko.sasaki@infineon.com**  
**investor.relations@infineon.com**