



April 2016 – VisIC Technologies is pleased to announce its new Half-Bridge Evaluation Board using its VT15R65A GaN Power ALL Switch (Advanced Low Loss Switch) in a “work horse,” half-bridge power conversion circuit. The VT15R65A-EVBHB demonstrates 98.5% power conversion efficiency operating at a switching frequency of 200kHz. Silicon MOSFET-based systems demonstrating similar efficiencies in this power range are limited to operation at 60kHz or less, and competitive GaN devices have only shown similar efficiency at 100kHz.

The evaluation board can be easily configured into any half bridge-based topology such as synchronous Boost or Buck conversion. The board can also operate in a pulsed switching configuration for evaluating transistor waveforms. The VisIC’s GaN ALL Switch is driven by standard industry high frequency drivers.

Providing power conversion system designers with a complete, working power stage, the evaluation board includes high-frequency drivers for two VT15R65A power switches in a half-bridge configuration, the gate driver power supply, and a heat sink. VT15R65A, with the lowest $R_{ds(on)}$ among 650V GaN transistors or switches, achieves extremely efficient power conversion with switching transitions exceeding 100V/nS.

The VT15R65A-EVBHB configured as shipped with V_{IN} up to 400VDC supports 2kW loads. The Half Bridge Evaluation Board has a built-in planar inductor but also provides connections for external power inductors and capacitors to allow users to operate the board in higher power modes.

The user needs to provide an external 15VDC AUX voltage at a two-pin input. On-board voltage regulators to create the required voltages for the logic circuits and gate drives. The high voltage DC BUS input is connected using screw connections and the output bus is also connected via screw type connection.

For additional information, and for inquiries to obtain the VT15R65A-EVBHB high-current, half-bridge evaluation board, please contact:

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About VisIC Technologies ltd

Based in Nes Ziona, Israel, VisIC Technologies, Ltd. was established in 2010 by experts in Gallium Nitride (GaN) technology to develop and sell advanced GaN-based power conversion products. VisIC has successfully developed, and is bringing to market, high power GaN-based transistors and modules. (GaN is expected to replace most of the Silicon-based (Si) products currently used in power conversion systems.) VisIC has been granted keystone patents for GaN technology and has additional patents pending.

For more information please access our website: www.visic-tech.com