

## **Development Boards Simplify Evaluation Of eGAN FETs**

To expedite the evaluation of enhancement-mode gallium nitride (eGAN) based FETs for power supply designs transitioning from silicon MOSFETs to eGaN FETs, [Efficient Power Conversion \(EPC\)](#) has released two development boards. Both boards, the EPC9003 and the EPC9006, are primarily output power stages with each board containing two eGAN transistors in half-bridge configuration along with the driver IC optimized for eGAN devices (Fig.1.)

While the EPC9003 development board includes two 200-V EPC2010 eGaN FETs with a 5-A maximum output current and the LM5114 low-side gate driver from Texas Instruments, the EPC9006 comprises two 100-V EPC2007 eGaN FETs with 5-A maximum output current and TI's LM5113 driver chip.

The EPC2010 200-V eGAN FET is designed for use in applications such as solar microinverters, class D audio amplifiers, Power over Ethernet (PoE), and synchronous rectification. Likewise, the 100-V EPC2007 targets high-speed dc-dc converter, point-of-load regulators, class D audio amplifiers, and hard-switched and high-frequency circuits.

By incorporating all the critical components, including gate-drive supply and bypass capacitors, on single 2- x 1.5-inch boards with layout for optimal switching and easy connection to any existing converter (Fig.2), both the EPC9003 and EPC9006 are intended to simplify the evaluation process of eGaN FETs. In addition, there are various probe points on the boards to facilitate simple waveform measurement and efficiency calculation. For reference and ease of use, the development boards come with quick start guides.

Both the development boards are priced at \$95.00 each. They are available for immediate delivery from Digi-Key.



*Fig.1. The EPC9003 and EPC9006 development boards are primarily output power stages with each board containing two eGAN transistors in half-bridge configuration along with the driver IC optimized for eGAN devices.*

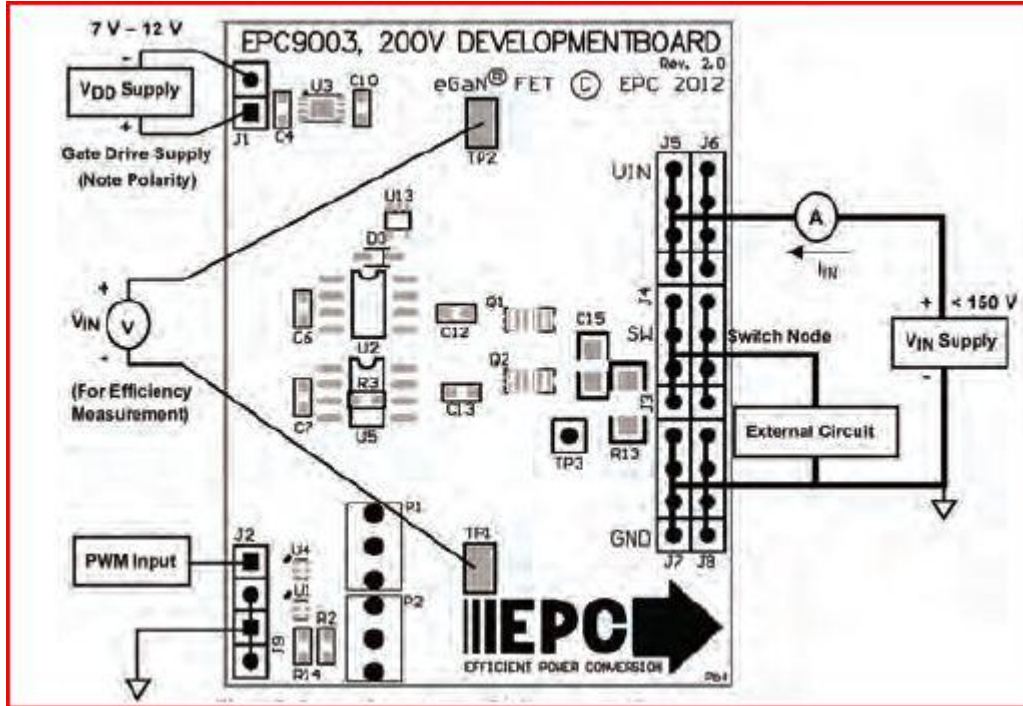


Fig 2. All the critical components, including gate-drive supply and bypass capacitors, are incorporated on this 2- x 1.5-inch board with proper layout for optimal switching and easy connection to any existing converter.