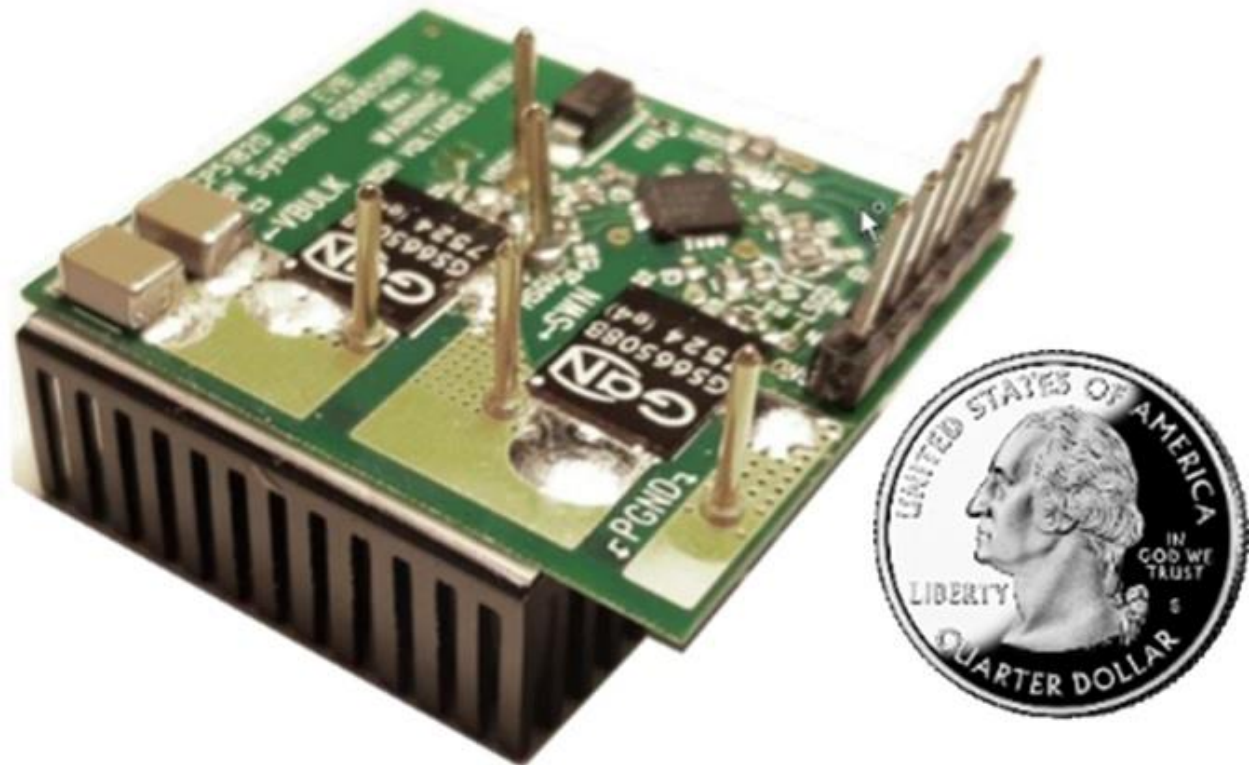


### **Half-Bridge Eval Board Demonstrates Benefits Of 650-V GaN HEMTs**

[GaN Systems](#) has announced a high-speed, half-bridge GaN daughter board using GaN Systems' 650-V, 30-A GaN E-HEMTs and ON Semiconductor's NCP51820 high-speed gate-driver. This evaluation board is developed for existing and new PCB designs and allows designers to easily evaluate GaN in existing half-bridge or full-bridge power supplies. The kit has a reduced component count in an ultra-small 25-mm x 25-mm layout, minimizing PCB board space (see the figure). Features, which include 1 MHz and higher operation and a 200-V/ns CMTI rating, provide increased power density and improved performance with fast-switching GaN power transistors.

Benefits of the eval board design include significant reductions in power losses, weight, size (up to 80% in layout size), and system costs (up to 60% BOM cost savings), targeting applications such as ac-dc adapters, data center power supplies, PV inverters, energy storage systems, and bridgeless totem pole topologies. This solution is said to be one of many upcoming GaN-based power system solutions both companies are developing. See [www.gansystems.com](http://www.gansystems.com) or [www.onsemi.com](http://www.onsemi.com) for more information.



*Figure. A high-speed, half-bridge GaN daughter board uses GaN Systems' 650-V, 30-A GaN E-HEMTs together with ON Semiconductor's NCP51820 high-speed gate driver, allowing designers to easily evaluate GaN in existing half-bridge or full-bridge power supplies.*