GE Aviation





Project Title: Design and Manufacture of Advanced Reliable WBG Power Modules

Objective: Develop Ultra Low Inductance, High Temperature Capable, Wire-bond Free WBG Modules

Major Milestones: - Successful Design Reviews

- Hardware Deliveries
- Reliability Testing

Significant Equipment Acquisition: None

Deliverables: WBG Modules; Five(5) Types

WBG Technology Impact

- 1. Advanced WBG Modules will enable true Engine Coolant Temperature grade equipment improving SWaP and reducing overall system costs.
- 2. Projects supports higher density Equipment required to support Next Gen Defense Systems and Commercial Transportation, Wind & Solar.
- 3. Timeframe for commercialization: One(1) year
- 4. Performance benefits of SiC and GaN Products will "Buy" their way onto future power systems as value of increased in efficiency and power density are recognized by Developers and Industry.



Standard Module Vs Low Inductance, High Temp Module

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Additional impacts

1. Project will standardize module internals driving up quantities and driving down cost.

2. With limited Module Manufactures in the U.S., the Projects contribution to Next Gen technologies with simplified manufacturing process will encourage new Players to enter the Market through licensing agreements potentially creating more U.S. Jobs in the Module space.

3. Project will deliver WBG Modules to the Power America device Bank enabling Academia to experiment and develop the next wave of Advanced Power Electronics.

4. Improved US Competitiveness through early adoption of delivered WBG Modules and product support provided by Team

PowerAmerica

For Public Release