

Project Title:

Power Module Development & Manufacturing

Objectives:

Improve package foundry test and automation, and commercialize domestically-manufactured 1.2 kV – 10 kV power modules.

Major Milestones:

Industry Standard 62 mm Transition into Line
Qualified 3.3 kV Module & Driver Released
10 kV Module & Driver Released for Initial Sampling

Significant Equipment Acquisition: None

Deliverables:

New Product Releases into the Market



SOPO Task No. 3.1

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WBG Technology Impact

1. Increase in efficiency, reduction in size and weight, and increase in capabilities of power electronic systems.
2. Market segments impacted: Aerospace, Automotive, Down-hole, Energy, etc...
3. Commercialization starting CY16
4. Packaging designed specifically for WBG instead of placing WBG in Si packaging can result in 10X power density, 10X size/weight reduction, and system cost savings.

More WBG Impact and Additional impacts

1. WBG high performance modules start to approach legacy Si with economy of scale.
2. Job creation through MFG and Qualification focus.
3. Publications on high performance module/system design for industry education.