

# New Release

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### DELPHI'S PHEV INVERTER POWER CARD STRUCTURE ANALYSIS REPORT

**February 2020.** This IGBT power module is produced by Delphi and it is used in the inverter unit of Geely Automobile's flagship PHEV sedan, model name: Bo Rui. The same module is also found in some Volvo and BMW models.



Bo Rui PHV of Geely Automotive



Power card



Power card X-ray

#### **Product overview**

The power semiconductor dies of the power card are sandwiched between Direct Bonded Aluminum (DBA) substrates cooled by double-sided cooling system. The terminals are coated with resin mold. Temperature sensing diode, current sensing element, and the gate protection diode are integrated within the IGBT die.

## Report content (87 pages)

## Module structure

- The interface between components and DBA, and the DBA structure
- DBA layout based on module plane analysis
- Thermal resistance calculation based on thermal analysis

### **IGBT** structure

- Planar and cross-sectional analysis (transistor area and die edge)
- Planar analysis of the temperature sensing and protection diodes.

Report price: \$7,200



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