

## **ROHM SiC POWER MODULE FOR HONDA CLARITY FUEL CELL (FCV) DETAILED STRUCTURE ANALYSIS REPORTS**

**March 2019.** LTEC Corporation is analyzing detail structure of SiC power module by Rohm used in Honda Clarity FCV. This module is the 1<sup>st</sup> module used in the automotive allocation.



**Module (Top view)**



**Module after removal of the control board**

### **Product overview**

- This is the first SiC module for automotive application mounted in Honda Clarity (FCV), mass-produced cars released in March 2016.
- This module Intelligent Power Module is using SiC for both MOSFET and SBD used in the boost control that boosts the output voltage of the fuel cell stack up to 500 V.
- We estimate that planar SiC device is used.
- **Report contents**
- Two reports will be released. One is a detailed structure analysis report, release date 3/28; the other is a process/device characteristics analysis report, release date 4/5.
- The structural analysis report includes structure, material analysis of both module, and the SiC FET.
- The process and device characteristics analysis report includes device characteristics manufacturing process flow estimation based on electrical characteristics measurements, and the structural analysis results.
- A comparison with industrial products (SCT 2080KE) will be also included.
- Layer patterns of each layers, component list, function block diagram, and details component level circuit schematic are provided.

**Structure analysis report: \$6,000**

**Process & device characteristics analysis report: \$6,000**

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