

New Release

LTEC Corporation

Your most experienced partner in IP protection

ROHM SIC POWER MODULE GATE DRIVER PCB CIRCUIT ANALYSIS REPORT

February 2020. LTEC Corporation released a circuit analysis report of a Rohm SiC Power module gate driver PCB used in the Honda Clarity Fuel Cell Vehicle (FCV).



Gate driver PCB: 84.7mmx49.6mm/6 layers

Note:

LTEC Corporation also released a power module **structure analysis report** and a Power module **process flow analysis report** for this module.

SiC Power module

Product outline

When the Honda Clarity FCV was released in March 2016, this product was the first ever released SiC power module for mass-production. The SiC devices were used in the boost converter to boost the output voltage of the fuel cell stack up to 500V. The FET and Schottky barrier Schottky diode were both SiC devices.

Report content

The 25-page report includes the PCB outline, layout of each layer, function block diagram, detailed circuit diagram, and parts list.

A schematic vs. layout cross reference viewer is also provided.

Report price: \$7,200

Note: The report price may change over time. For current price contact info@ltecusa.com.

19G-0015-1



Phone: (408) 489-1994 www.ltecusa.com Contact: info@ltecusa.com

Table of Contents

	Page
Summary	
Table 1, Product outline	3
Table 2, PCB outline	4
Analysis result summary	
Fig 1-1. PCB	6
Fig 1-2. PCB after resin removal	7
Fig 2. PCB marking	8
Fig 3. PCB X-ray	9
Fig 4. PCB after component removal	10
Fig 5. PCB layout of each layer (6 layers)	11
Components position identification	
Fig. 6 Components position (Top view and bottom view)	13
Component	
Table 3, Component summary	15
Fig 7. High magnification images of each component	16
<u>Interface</u>	
Fig 8. Connectors	17
<u>Circuit</u>	
Fig 9-1. Function block diagram	18
Fig 9-2. Component level schematic	19
BOM list	20



Phone: (408) 489-1994 www.ltecusa.com Contact: info@ltecusa.com